

## Abstract

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This report provides baseline projections for international supply, demand, and trade for major agricultural commodities to 2007. It is a companion report to USDA Agricultural Baseline Projections to 2007 (WAOB-98-1), providing the foreign country detail supporting those projections. Projections of strong global economic growth, particularly in developing countries, combined with more open foreign markets and the emergence of China as a major bulk commodity importer, support strong projected gains in U.S. farm exports. The value of total U.S. agricultural exports is projected to rise from \$57.3 billion in FY 1997 to nearly \$85 billion in 2007. The projections are a conditional scenario, assuming the continuation of 1996 U.S. farm legislation through 2007, no shocks, average weather, and specific macroeconomic and foreign country policy assumptions. The projections were completed based on information available as of December 1997, and reflect a composite of model results and analyst judgment.

**Keywords:** Agriculture, commodities, international, projections, supply, use, trade.

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## **A Note to Users of USDA International Baseline Projections**

Long-term international projections presented in this report are consistent with the USDA consensus longrun scenario for U.S. agriculture and trade published in USDA Agricultural Baseline Projections to 2007 (WAOB-98-1) released in February 1998.

This ERS report provides additional detail on the international projections underlying the February 1998 USDA baseline. The report includes a review of international macroeconomic, population, and policy assumptions, as well as tables and analysis of supply, demand, and trade projections for major foreign countries. Commodities covered are: wheat, rice, corn, sorghum, barley, total coarse grains, soybeans, soybean meal, soybean oil, cotton, beef, pork, and poultry. The international projections are made in conjunction with the detailed U.S. sector analysis and the President's Budget analysis.

The baseline scenario presented in this report is not a USDA forecast of the future. Instead, it is a conditional, longrun scenario about what would be expected to happen under the 1996 Farm Act, extended through 2007, and specific assumptions about external conditions. Critical assumptions include:

- U.S. and international macroeconomic conditions;
- U.S. agricultural and trade policies;
- Funding for U.S. agricultural export programs;
- Foreign economic, agricultural, and trade policies, and;
- Normal (average) weather.

Changes in any of the assumptions can significantly affect the projections, and actual conditions that emerge will alter the outcomes.

The baseline projections analysis was conducted by interagency committees in USDA and reflects a composite of model results and judgmental analysis. The projections and this report were reviewed and cleared by the Interagency Agricultural Projections Committee, chaired by the World Agricultural Outlook Board (WAOB). The major USDA participants in the trade analysis and review include the WAOB, the Economic Research Service, the Farm Service Agency, and the Foreign Agricultural Service.

Historical data through 1997/98 used in this report are current as of February 1998. All projections for 1998/99-2007/08 were completed in December 1997, based on November 1997 USDA data.

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# International Agricultural Baseline Projections to 2007

## Introduction

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This publication of long-term projections for international agriculture is a companion to *USDA Agricultural Baseline Projections to 2007* (WAOB-98-1) released in February 1998. It is intended to provide users of USDA projections with the detailed foreign supply, use, and trade projections that support the baseline outlook for U.S. agriculture and trade. Accordingly, this report includes a review of macroeconomic and major country policy assumptions, along with tables and analysis of the supply, demand, and trade projections for major countries for wheat, rice, coarse grains, soybeans and products, cotton, beef, pork, and poultry. These commodities accounted for about 58 percent of U.S. agricultural export value in 1996 and 52 percent in 1997.

As is the case with the domestic component of USDA's baseline projections, the non-U.S. projections presented in this report should not be interpreted as forecasts of future events. Rather, they indicate the expected outcomes, given specific assumptions on future macroeconomic, climatic, and policy assumptions. All assumptions are designed to provide a neutral backdrop to the projections, making them useful for the analysis of the impacts of shocks or alternate assumptions.

Macroeconomic assumptions represent expected future trends in key variables, but exclude any variations due to business cycles. Supply projections assume average weather conditions in each year. Foreign country economic and agricultural policies are assumed to continue to evolve along recent trends, based on analyst judgment. U.S. domestic farm policy assumptions are based on the 1996 Farm Act, continued through 2007. Assumptions on bilateral and multilateral policies affecting agriculture and trade are based on formal agreements as of November 1997.

The non-U.S. supply, use, and trade projections in this report are the product of model output and analyst judgment. The principal model used in the foreign projections is the multi-region, multi-commodity, Country-Link System maintained and used by regional and commodity trade analysts in the Market and Trade Economics Division of the Economic Research Service. Analyst judgment is provided by ERS regional and commodity analysts, as well as by analysts from the World Agricultural Outlook Board and the Foreign Agricultural Service.

## Summary of Trade Projections

Relatively strong growth in the volume of global trade in bulk agricultural commodities is projected for 1998-2007. Trade in grains, led by coarse grains, is expected to show the fastest growth among bulk commodities, particularly during 2000-2007. Despite prospects for slowed demand in Southeast Asia over the next several years, projected trade gains are driven by relatively strong economic growth in most developing regions, including China, South and Southeast Asia, Latin America, North Africa, and the Middle East.

Increasingly market-oriented domestic and trade policies in many countries, stemming from both multilateral and unilateral reforms, are also expected to contribute expanding bulk commodity trade.

Higher incomes in developing countries are projected to lead to further diet diversification, rising meat demand, expanding livestock sectors, and higher demand for feed grains. Wheat trade is also projected to expand in response to higher developing country incomes. Combined trade in soybeans and meal is expected to be relatively strong, due to the same

expansion of developing country feed-livestock sectors that will push up coarse grain trade. Growth in soybean oil trade is projected to remain faster than in the 1980s, but slower than some competing oils because of its high relative price. Raw cotton demand and trade is projected to be stronger than in the early 1990s, but is not expected to match the 1980s when there was increased substitution of cotton for synthetic fibers.

U.S. export growth is projected to strengthen for most bulk commodities. U.S. exports of wheat and coarse grains are projected to expand the fastest. After 2000, U.S. wheat export growth is projected to slow because of anticipated unsubsidized competition from the European Union (EU) as world wheat prices rise. U.S. rice export volume will stay nearly flat as domestic demand captures nearly all of the gains in U.S. production. Exports of U.S. soybeans and products are projected to rise faster than in the 1980s, aided by improving U.S. yields. However, foreign competition and slowing U.S. acreage gains are likely to constrain

Table 1--Summary of U.S. and global export growth 1/

Years	Wheat	Rice	Coarse grains	Soybeans	Soybean meal	Soybean oil	Cotton
Percent per year							
World Trade Growth 2/							
1960 to 1970 3/	1.1	2.2	4.9	11.4	14.4	11.3	0.8
1970 to 1980	4.7	4.9	8.7	8.2	11.7	12.8	1.2
1980 to 1990	-0.3	0.6	-1.0	-0.4	2.9	0.5	2.5
1990 to 2000	-0.3	4.8	1.0	5.2	3.6	5.9	-0.2
2000 to 2007	2.8	2.7	3.3	1.4	2.2	1.4	1.7
U.S. Export Growth							
1960 to 1970 3/	-0.8	6.3	3.8	12.6	13.0	5.3	-5.4
1970 to 1980	6.4	6.8	12.7	7.2	5.8	5.4	6.1
1980 to 1990	-3.3	-0.5	-0.7	-3.7	-1.8	-5.5	2.3
1990 to 2000	0.5	2.0	3.1	5.9	3.2	10.6	0.3
2000 to 2007	2.0	0.3	3.3	1.4	0.2	0.5	1.7
Percent							
U.S. Share of World Trade, Average 2/							
1960 to 1970 3/	37.6	19.0	50.0	90.6	65.6	66.6	18.3
1970 to 1980	43.0	22.1	59.4	82.6	43.5	37.5	19.8
1980 to 1990	37.3	20.2	59.4	72.6	23.7	19.3	21.5
1990 to 2000	32.2	15.0	59.6	67.0	18.8	15.9	25.9
2000 to 2007	33.5	12.3	66.7	67.8	16.7	19.4	25.3

1/ Years refer to the first year of the commodity marketing year.

2/ Trade and trade shares include intra-FSU trade for periods starting in 1990 and later; intra-FSU trade for cotton also is included in the 1980 to 1990 and the 1970 to 1980 periods.

3/ Data for soybeans, soybean meal, and soybean oil begin in 1964.



export growth relative to that of competitors after 2000. U.S. raw cotton exports are projected to strengthen through most of the 1998-2007 period, benefiting from rising demand and reduced competition in some countries.

U.S. wheat is projected to gain a rising share of world trade during 1998-2000, with the U.S. share then stabilizing because of anticipated unsubsidized EU competition. For other crops, projected U.S. market shares will generally follow historical trends. Reduced competition will lead to a continued rise in the U.S. share of world coarse grain trade, although the emergence of competitors such as Eastern Europe may limit U.S. gains in coarse grains trade after 2000. U.S. rice market share is projected to decline because of minimal domestic rice production gains and strong domestic use. U.S. market share for soybeans and products is projected to continue to decline gradually because of South American competition, as well as anticipated U.S. acreage constraints. The U.S. share of world cotton trade is projected at about 25 percent through the baseline, as many foreign producers reduce raw cotton exports by channeling production toward consumption and value-added textile products.

Despite a near-term slowdown in growth in Asia, generally favorable global economic growth is expected to spur growth in meat demand and trade over the longer term. Already negotiated reductions in trade barriers, primarily in East Asia, will help spur trade growth. Rising meat demand is projected in several countries in the Pacific Rim and Latin America, with the Pacific Rim providing the most

growth in both consumption and import demand. The United States is well positioned to provide a variety of meat products to these markets.

Growth in meat import demand in the Former Soviet Union (FSU) is projected to slow. Although declines in meat consumption will slow and demand will turn upward after 2000, domestic FSU production of meat is also projected to begin increasing. This could reduce the region's dependence on imported meat, although the United States is expected to continue to supply low-priced parts and trimmings to that market.

The value of U.S. meat exports is projected to grow an average of about 4 percent annually during 1998 to 2007, somewhat slower than the rapid ascent of the past several years. Although export volume will rise, the increasing share of low-valued meat products may slow the growth in total value.

### Agricultural Price Projections

Along with relatively strong growth in trade, the baseline projections indicate tightening markets for the major bulk commodities. Projected prices for the major commodities will continue to decline in real terms through 2007, but at a slower rate than long-term trends. Strengthening U.S. and global crop prices stem from the projected growth in demand, combined with the outlook for somewhat slower growth in yields. Although crop area is expected to rise along with price incentives, yield gains tended to slow for major crops in a number of regions during 1985-96. Although yields are expected to show some response

Figure 1  
Real international crop reference prices

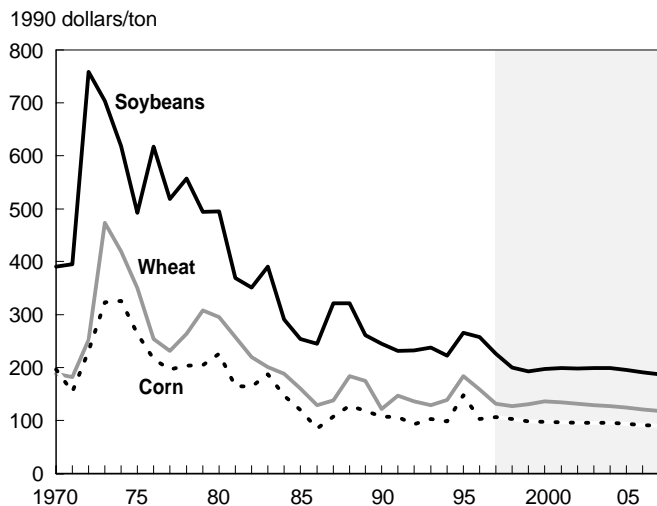


Figure 2  
Real international meat reference prices

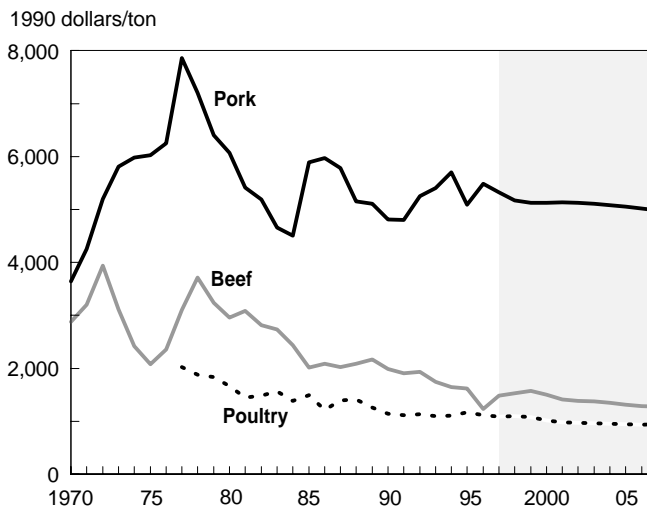


Table 2--Summary of U.S. and international reference price projections (marketing years)

Commodity	Description	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Nominal \$/ton															
U.S. internal prices															
Beef	Canner & cutter; whlsl	1,514	1,283	1,450	1,791	1,888	1,994	1,967	1,910	1,929	1,974	1,997	2,017	2,035	2,077
Pork	Cut-out, 175lb carcass #2	1,322	1,596	1,583	1,437	1,297	1,292	1,348	1,410	1,467	1,502	1,523	1,540	1,551	1,559
Broilers	12 city	1,243	1,349	1,312	1,312	1,352	1,363	1,333	1,319	1,351	1,383	1,415	1,442	1,473	1,532
Wheat	U.S. farm	127	167	158	130	129	138	149	152	154	156	160	162	162	164
Rice	U.S. farm, rough	149	202	218	215	224	228	233	237	242	247	252	257	262	267
Corn	U.S. farm	89	128	106	104	102	100	104	108	110	114	118	120	120	122
Sorghum	U.S. farm	84	126	92	93	91	89	93	96	100	106	110	112	112	114
Barley	U.S. farm	93	133	126	110	108	106	110	115	117	119	124	126	126	129
Soybeans	U.S. farm	201	247	271	235	209	208	220	231	239	248	257	261	263	266
Soymeal	48% protein, Decatur	179	260	299	234	201	201	217	233	239	245	254	257	258	261
Soyoil	Crude, Decatur	608	546	496	551	546	540	535	535	551	568	579	584	590	595
Nominal \$/ton															
International reference prices															
Beef	NY	1,852	1,870	1,884	1,791	1,888	1,994	1,967	1,910	1,929	1,974	1,997	2,017	2,035	2,077
Pork	Japan, cif	6,403	5,860	6,456	6,401	6,369	6,498	6,704	6,930	7,148	7,347	7,537	7,729	7,919	8,108
Broilers	12 city	1,243	1,349	1,312	1,312	1,352	1,363	1,333	1,319	1,351	1,383	1,415	1,442	1,473	1,532
Wheat	U.S. Gulf, fob	154	209	184	156	154	164	175	178	180	182	186	187	187	189
Rice	Houston, fob	314	414	450	436	452	453	461	466	473	481	488	496	507	512
Rice	Bangkok, 5% broken	282	352	327	310	325	324	331	334	339	343	348	352	357	362
Corn	U.S. Gulf, fob	109	169	121	127	125	123	126	129	132	136	140	143	143	146
Sorghum	U.S. Gulf, fob	108	162	116	118	117	115	118	121	125	132	136	138	139	142
Barley	Duluth	93	123	107	107	106	104	106	109	111	115	118	120	120	123
Soybeans	Rotterdam	248	304	301	270	244	243	255	266	274	283	292	296	298	301
Soymeal	Rotterdam	185	256	283	232	198	198	215	230	236	242	251	255	256	259
Soyoil	Dutch fob, ex-mill	642	575	536	551	536	525	528	535	561	583	599	606	614	621
Constant 1990 \$/ton															
U.S. internal prices															
Beef	Canner & cutter; whlsl	1,349	1,115	1,231	1,490	1,533	1,573	1,504	1,414	1,384	1,373	1,347	1,319	1,290	1,277
Pork	Cut-out, 175lb carcass #2	1,178	1,387	1,345	1,195	1,053	1,019	1,031	1,043	1,052	1,045	1,027	1,007	983	958
Broilers	12 city	1,108	1,172	1,114	1,091	1,098	1,075	1,019	977	969	962	954	943	933	942
Wheat	U.S. farm	115	147	136	110	106	111	116	115	113	111	110	108	104	102
Rice	U.S. farm, rough	134	177	187	180	183	182	180	178	176	174	172	170	168	166
Corn	U.S. farm	80	112	91	87	84	80	81	81	80	80	80	79	77	76
Sorghum	U.S. farm	75	110	79	77	74	71	71	72	73	75	75	74	72	71
Barley	U.S. farm	84	117	108	93	89	85	86	87	86	85	85	84	82	80
Soybeans	U.S. farm	181	216	232	197	171	165	170	173	173	174	175	172	168	165
Soymeal	48% protein, Decatur	161	227	255	196	164	160	167	174	173	172	172	169	165	161
Soyoil	Crude, Decatur	545	477	424	461	446	429	412	399	399	398	393	385	377	369
Constant 1990 \$/ton															
International reference prices															
Beef	NY	1,650	1,625	1,231	1,490	1,533	1,573	1,504	1,414	1,384	1,373	1,347	1,319	1,290	1,277
Pork	Japan, cif	5,705	5,092	5,483	5,323	5,171	5,127	5,128	5,130	5,129	5,112	5,084	5,053	5,020	4,984
Broilers	12 city	1,108	1,172	1,114	1,091	1,098	1,075	1,019	977	969	962	954	943	933	942
Wheat	U.S. Gulf, fob	139	184	159	131	127	131	136	134	132	129	127	125	121	118
Rice	Houston, fob	283	363	386	365	370	361	357	350	344	339	334	329	326	319
Rice	Bangkok, 5% broken	254	309	280	260	266	259	256	251	246	242	238	233	229	225
Corn	U.S. Gulf, fob	98	148	103	106	103	98	97	97	95	96	96	94	91	91
Sorghum	U.S. Gulf, fob	97	142	99	99	96	91	91	90	91	93	93	91	89	88
Barley	Duluth	84	108	92	90	87	83	83	82	81	81	81	80	78	77
Soybeans	Rotterdam	222	266	257	226	200	193	197	199	199	199	199	195	191	187
Soymeal	Rotterdam	165	224	242	194	162	157	166	172	170	170	170	168	163	160
Soyoil	Dutch fob, ex-mill	575	503	457	461	437	417	407	399	406	408	407	399	392	385

Source: U.S. internal prices are USDA baseline projections; international reference prices are ERS projections.

Notes: Beef, pork, and broiler prices are for calendar years; calendar year 1997 data assigned to marketing year 1996, etc. Constant 1990 prices are deflated by the U.S. GDP deflator.

The GDP deflator varies by marketing year. USDA is prohibited from publishing cotton price projections.

to price incentives, the extent to which global supplies will respond in an environment of firmer prices is a key uncertainty in the outlook.

While firmer real crop prices are projected, meat prices are expected to continue to decline roughly consistent with their long-term trend. Particularly in the United States, the impacts of firmer feed prices are expected to be offset by continued efficiency gains associated with improved feeding practices and vertical coordination in the meat industry.

## U.S. Agricultural Trade Projections

The total value of U.S. agricultural exports is projected to rise from \$57.3 billion in fiscal 1997 to \$62.6 billion (current dollars) in fiscal 2000, and approach \$85 billion by 2007. U.S. imports are projected to rise from \$35.8 billion in fiscal 1997 to \$50.4 billion in 2007, resulting in the agricultural trade surplus rising from \$21.5 billion in 1997 to \$33.9 billion in 2007.

Export value declined in fiscal 1997, primarily reflecting lower grain prices. However, continued strong growth in high-value product (HVP) exports

kept 1997 export value second only to the 1996 record. During 1997-2007, the expectation is for continued rapid HVP export growth of about 4.6 percent annually. Although bulk exports are projected to continue to grow more slowly than HVP exports, faster growth in bulk exports compared with the 1980s is expected to be a key source of export strength during 2000-2007. Total exports are projected to grow 3.9 percent annually from fiscal 1997 to 2007, with bulk exports expanding at about 2.9 percent annually.

Because of the more rapid increase in HVP exports, HVPs are projected to increase in share from about 61 percent to more than 63 percent. Much of the HVP gain is in horticultural products, which are projected to rise 5.6 percent annually from 1997 to 2007. Animal product exports, led by beef, pork, and poultry, will grow about 4.2 percent each year over this period.

U.S. imports are projected to rise about 3.5 percent annually from 1997 to 2007. Horticultural imports, the largest import category, will grow about 4.6 percent annually. Growth in animal product imports will slow

Table 3--U.S. agricultural trade values, baseline projections, fiscal years

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2007 growth rate
	Billion dollars												Percent/ year
<b>Agricultural exports:</b>													
Animals and products	11.7	11.7	12.2	12.5	13.2	13.5	14.0	14.7	15.4	16.1	16.8	17.5	4.2
Grains, feeds, and products	21.6	16.5	16.7	17.5	18.6	20.2	21.3	22.3	23.5	24.8	24.2	24.9	4.2
Oilseeds and products	9.7	11.4	11.0	10.3	10.4	11.1	11.8	12.3	12.9	13.5	14.0	14.4	2.3
Horticultural products	10.0	10.6	11.2	11.8	12.5	13.3	14.1	14.9	15.7	16.5	17.4	18.3	5.6
Tobacco, unmanufactured	1.4	1.6	1.6	1.4	1.4	1.4	1.4	1.4	1.2	1.2	1.2	1.2	-3.1
Cotton and linters	3.0	2.7	2.7	2.8	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	2.4
Other exports	2.4	2.7	3.1	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.6	5.2
Total agricultural exports	59.8	57.3	58.5	59.7	62.6	66.2	69.4	72.6	76.0	79.8	81.4	84.3	3.9
Bulk commodities exports	28.0	23.3	22.8	22.9	23.8	25.6	27.0	28.0	29.3	30.9	30.3	31.0	2.9
High-value product exports	31.8	34.0	35.7	36.8	38.8	40.6	42.5	44.6	46.7	48.9	51.1	53.3	4.6
High-value product share	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
<b>Agricultural imports:</b>													
Animals and products	6.0	6.4	6.9	7.5	7.6	7.8	8.1	8.3	8.8	9.2	9.4	9.5	4.0
Grains, feeds, and products	2.5	2.9	3.0	3.1	3.2	3.4	3.4	3.5	3.6	3.6	3.7	3.7	2.5
Oilseeds and products	2.1	2.2	2.1	2.3	2.8	2.8	2.9	3.2	3.4	3.5	3.5	3.6	5.0
Horticultural products	11.7	12.7	14.4	14.5	15.1	15.7	16.4	17.0	17.7	18.4	19.2	19.9	4.6
Tobacco, unmanufactured	0.8	1.2	1.4	1.4	1.3	1.3	1.4	1.5	1.5	1.7	1.9	2.0	5.2
Sugar and related products	1.8	1.9	1.7	1.9	2.0	2.0	2.2	2.3	2.4	2.5	2.5	2.6	3.2
Coffee, cocoa, and rubber	5.6	6.4	6.4	6.3	6.2	6.3	6.4	6.6	6.6	6.6	6.7	6.7	0.5
Other imports	2.1	2.1	2.1	2.3	2.2	2.3	2.1	2.2	2.3	2.3	2.4	2.4	1.3
Total agricultural imports	32.6	35.8	38.0	39.3	40.4	41.6	42.9	44.6	46.3	47.8	49.3	50.4	3.5
Net agricultural trade balance	27.2	21.5	20.5	20.4	22.2	24.6	26.5	28.0	29.7	32.0	32.1	33.9	4.7

Note: "Other exports" consists of seeds, sugar and tropical products, and beverages and preparations. Essential oils are now included in horticultural products. Bulk commodities include wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value products (HVPs) are total exports less the bulk commodities. HVPs include semi-processed and processed grains and oilseeds, animals and products, horticultural products, and sugar and tropical products. "Other imports" include seeds, beverages except beer and wine, and miscellaneous commodities.

from 5.9 percent between fiscal 1997 and 2000, to 3.2 percent during 2000-2007.

### **Major Uncertainties**

The trade projections are sensitive to the assumptions for continued strong economic growth in developing Asian countries, as well as improved growth in developing countries in Latin America, North Africa, and the Middle East. The baseline macroeconomic assumptions account only for the impacts of the 1997 Asian financial crisis that could be anticipated as of early November 1997. Estimated impacts of economic developments in Asia, and in some other developing countries, since November 1997 are not accounted for in the baseline. For analysis of the potential trade impacts of the Asia crisis, including results of a more recent scenario, see the Asia Crisis box (page 12).

The price and trade projections are closely linked to projected gains in crop productivity. The responsiveness of yields to an environment of firmer prices and increasingly market-oriented policies, as well as

improved investment conditions in many developing countries, is uncertain.

More specifically, the projections are sensitive to the uncertain outlook for supply, demand, and policy developments in China, the EU, and the transition economies of the FSU and Central and Eastern Europe (CEE). Prospects for the huge China market are uncertain because rapid growth, structural change, and policy reform have greatly complicated assessment of future policies and technical supply and demand coefficients. The EU trade projections depend on assumptions regarding the nature of policy adjustments that may be undertaken to comply with the Uruguay Round Agreement, and on future supply response. And, although the FSU is projected to have a reduced role in world grain trade, it is inherently difficult to assess accurately future policies and economic relationships in the transition economies of the FSU and CEE.

# Macroeconomic and Population Assumptions

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Estimates for macroeconomic variables through 1998 were the most likely short-term forecasts of economic growth, inflation, and financial market behavior at the time the macroeconomic assumptions were prepared in November 1997. The forecast for 1999 is a transition between the short-term forecast and the long-term projections. The long-term projections for the macroeconomy for 1999-2007 reflect trend assumptions for some indicators combined with standard relationships between major macroeconomic variables. The absence of business cycles beyond the second year of the forecast reflects a conviction that business cycles, as well as shocks to the macroeconomy like large oil price increases, cannot be accurately forecast. This macroeconomic setting avoids distorting the long-term baseline for agriculture by introducing unpredictable swings in macroeconomic variables.

## U.S. Macroeconomic Assumptions

The U.S. economy is in the mature phase of the economic recovery that began in 1991. In 1997, GDP expanded about 3.5 percent, with unemployment averaging 5.0 percent, down 0.4 percent from the 1996 rate. The rise in GDP in 1997 was led by very strong growth in business investment in computers, strong growth in consumer durable spending for furniture and appliances, and good growth in consumer spending on services. Low unemployment rates at this stage of the business cycle ordinarily mean tightening labor markets and rising wage-induced inflation. However, consumer prices in 1997 rose only 2.5 percent, less than in 1996, as strong labor productivity growth and only modest increases in total compensation contained labor costs.

In 1998, GDP and employment growth will slow from the rapid pace of 1997, largely because of slowing investment growth, particularly in computer equipment, and moderating growth in consumer durable spending. Since labor markets will remain tight, wages and compensation will rise relative to profits. Slowed profit growth in 1998, with modest increases in interest rates and tighter credit conditions, will curtail the rapid growth in business equipment spending. The dollar is expected to be relatively stable in 1998, so price cuts for computer equipment will not be as sharp as in 1997.

Despite improved economic prospects in Europe in 1998, the strong dollar is expected to restrain U.S. export growth. Slowing growth in consumer and investment spending, a bigger trade deficit, and sluggish Government spending is projected to result in GDP growth of about 2.3 percent for the year. Moderating GDP growth will prevent severe labor market and production bottlenecks and thus limit inflation in 1998. Consumer prices are forecast to rise by 2.9 percent, somewhat faster than in 1997. Given moderating growth and low inflation, U.S. interest rates are expected to be relatively stable through 1998, although slightly higher than in 1997.

In the longer term, the baseline macroeconomic projections show recovery from the below-trend growth of the late 1980s and early 1990s. From 1998 to 2007, the economy is projected to grow by 2.5 percent annually. Real compensation will lag productivity growth, mainly because of a more open economy. Business and dividend income will increase relative to wages, which supports personal income growth. Disposable income will grow as fast as GDP.

Major assumptions underlying the long-term U.S. macroeconomic projections are:

- Fiscal policy will be tight, consistent with a balanced federal budget in 2002. Even with higher local government spending picking up some of the Federal spending slowdown, overall government spending growth will average only 0.3 percent per year from 1999 through 2002. It is likely that 2002 will see a modest Federal budget surplus for the first time since 1969. In 2003 to 2007, Government spending will grow at the rate of population growth.
- The Federal Reserve will remain committed to containing inflation even as the government deficits shrink. Money supply will expand 5.3 percent annually between 1998 and 2007, reflecting moderately tight monetary policy and trend GDP growth of 2.5 percent.
- Real crude oil prices will rise 1.1 percent per year from 1999 to 2007, consistent with medium-term Department of Energy projections made in January 1997.

- Labor productivity growth will be in the 1.1-1.2 percent range from 1998 to 2007. This is modestly faster than growth in the previous 15 years. Productivity improvement will come primarily from a rising investment share in GDP, low real oil and material price increases, and real interest rates lower than they would have been without deficit reduction. Trade liberalization from the NAFTA and GATT agreements will also aid productivity growth throughout this period.
- Employment will grow 1.3-1.4 percent per year until 2005, which is broadly consistent with Bureau of Labor Statistics projections, the tightened welfare and disability qualifications now in place, and expected immigration. For 2006 and 2007, growth in employment will slow as the first wave of baby boomers retires in significant numbers.
- Real GDP in OECD countries, minus the United States, will grow about 2.4 percent through 2001 and will average 2.2 percent from 2002 to 2007.
- Federal deficit reduction and lower inflation expectations mean smaller interest rate differentials relative to U.S. trading partners. U.S. inflation will remain higher than in Canada and Japan, but close to that of Germany, France, Italy, and the United Kingdom. The inflation differential drives the modest decline in the value of the dollar from 2000 to 2007.

Without commodity price shocks or abrupt changes in macroeconomic policy, stable growth generally implies stable inflation. Consumer price inflation is projected to average 3 percent over the next decade. This moderate inflation outlook assumes that monetary policy focuses on containing inflation. Real short-term Treasury-bill rates will average slightly less than 3 percent, reflecting relatively tight Federal Reserve policy as well as the beneficial effects of fiscal deficit reduction. Real long-term Treasury-bond rates of about 4 percent reflect lower Government demand for credit as Federal deficits are eliminated.

The stable domestic financial environment, global trade liberalization induced by the Uruguay Round and NAFTA accords, low oil prices, and moderate growth in OECD countries mean that U.S. exports will grow faster than imports. Thus, the real U.S. trade deficit will fall to about half the current level by 2007.

Strong export growth, combined with gains in domestic consumer demand, will provide impetus for

strong growth in capital investment, similar to that seen in the 1960s. A high depreciation rate will further enhance gross investment as more capital spending is devoted to short-lived equipment and less to long-lived plant construction. Low real interest rates and less competition from the Federal Government in credit markets will provide major support for strong investment growth.

Eliminating the budget deficit and reducing the real trade deficit will lead to only small adjustments in private domestic consumption. Thus, consumer spending will grow about as fast as GDP and the consumption share of GDP will be about the same in 2007 as in 1997. However, because of slow Government spending growth, the investment and export shares of GDP will increase.

### **International Macroeconomic Assumptions**

The international macroeconomic assumptions used in the baseline were completed in October 1997. The outlook for the world economy over the next 10 years shows stronger growth than during 1990-96. Real GDP is projected to grow by 3.2 percent annually through 2007, compared with 2.3 percent during 1990-96. The developing Asian economies are expected to remain growth leaders, despite 1997's currency devaluations and related slowdowns in Southeast Asia (see Asia Crisis box, p. 12). Asia's output will grow at a more sustainable 6.6 percent pace over the next decade, down from 7.8 percent during 1990-96. Significantly stronger growth than during 1990-96 is expected in Latin America, North Africa, Eastern Europe, and the former Soviet Union. The developed economies, including the United States, will grow at potential GDP expansion rates of 2.4 to 2.5 percent. Inflation is expected to be low in the developed economies and moderate in the developing countries. The real price of oil is expected to increase 1.1 percent annually.

**Developed Economies.** In the coming decade, the developed economies will improve GDP growth from the low rates of the first half of the 1990s. Low inflation and, thus, low interest rates will help countries produce output close to potential levels. Government budgets, except in Japan, will be largely balanced. However, external imbalances may persist, particularly the large U.S. trade deficits with Japan and China. Among the major economies, only the United States will continue to carry a large current account deficit,

which means comparatively higher U.S. interest rates to finance the deficit.

**European Union.** The coming monetary union between qualified EU members and introduction of a single currency will enhance the efficiency of cross-border trade and investment within Western Europe. More uniform fiscal policies, as well as disciplined monetary policy guided by the German-based central bank, should lead to more stable growth prospects early in the next century. The European economy is projected to expand by 2.2 percent on average from 2002 to 2007, while population growth reaches record lows.

Unemployment will remain high relative to the U.S., but should gradually fall as less regulated labor markets and more flexible wages are adopted. Inflation should be well controlled as a strong unified currency—the Euro—acts as an anchor for price stability. Fiscal consolidation by member countries will reduce inflationary expectations and lower long-term interest rates. The Euro is projected to appreciate in real terms as the currency becomes widely used for world trade and for international reserves. Because of monetary union, national differences in real interest rates will disappear—financial markets will encompass the whole region, and thus investment opportunities will depend less on the relative availability of capital in each country.

Greater intra-European trade should encourage price arbitrage of homogeneous products and services, providing comparable prices across countries for both producers and consumers. As capital freely moves across borders, investors and producers will be able to compete on more equal terms across countries, despite the lack of transnational mobility of workers. Even without formal eastward enlargement, closer integration with Eastern Europe also opens more trade and investment opportunities in the transition economies, particularly the former Soviet Union. As the transition economies gain higher per capita incomes, imports from the EU should rise accordingly.

**Japan.** The Japanese economy should eventually climb out of the anemic growth that prevailed during most of the 1990s. Domestic demand will revive as Japanese banks slowly strengthen their capital base after writing off remaining bad loans and as the property and stock markets rebound. Manufacturing production should lead the way toward more vigorous economic activity, led prominently by exports of high-value products. In

the longer run, recovery of Southeast Asian economies will provide additional demand for Japan's capital exports and manufactured goods.

The yen is expected to appreciate as the Japanese economy revives and as interest rates finally rise, but the current account surplus will remain large. The deregulation of Japan's financial market is also likely to boost the yen as foreign capital funds are attracted. Opening Japan's retail and insurance markets to foreign competition will lower prices of goods and services.

A structural problem of Japan's economy is the excess of savings over investment, as manifested in its sizable current account surplus. This fundamental imbalance, together with non-tariff barriers that restrict imports and foreign investment, keeps the domestic economy isolated from global competition. High internal costs in the non-manufacturing industries such as farming, house construction, and power generation, have held back investors as well as consumers. More deregulation, not unlike that in the financial sector, will help sustain domestic demand, specifically private consumption and investment, as well as boost imports.

**Canada.** Canada's growth pattern in the 1990s has roughly tracked the U.S. GDP path because of the close integration of trade and investment between the neighbors. Each country is the other's largest trading partner, and NAFTA has reinforced that relationship. Canada has consistently had a trade surplus with the United States in the 1990s, the destination for 82 percent of its exports. A competitive Canadian dollar significantly influenced this pattern. A steady depreciation against the U.S. dollar since 1990, plus a lower inflation rate relative to the United States, has helped boost the Canadian currency's real exchange rate competitiveness.

The future growth path for Canada depends to a large extent on the pace of U.S. economic activity, augmented by growing trade with Asia and Mexico. Already considerable, Canadian trade with Asia should further expand as APEC relationships become closer. Trade with Mexico is already on the rise as stimulated by NAFTA. The country's trade surplus is projected to continue growing beyond 2000.

The overhaul of Canada's welfare structure from large deficit to surplus is principally responsible for the country's bright growth prospects. Less government spending and more funds available for private invest-

ment and consumption allowed market forces to revive previously anemic growth as interest rates significantly fell. Low inflation and interest rates are expected to carry healthy GDP expansion through the next decade. Also, foreign debt (as a percentage of GDP) will fall by 35 percent over the next 10 years. Domestic demand in the short and long-term is to be led by fixed capital formation. National savings (as a share of GDP) will increase to around 22 percent compared with only 13.5 percent for the United States.

**Transition Economies.** Countries that are ahead in the transformation to market economies are experiencing higher growth than those that have only recently carried out reforms. The first group includes Poland, the Baltic countries, the Czech Republic, Hungary, the Slovak Republic, Croatia, and Slovenia. The second group includes Bulgaria, Romania, and the former Soviet Union. The principal measure of the success of reform, which also coincides with higher GDP growth, is the degree of integration into the global economy—trade flows, investment flows, and currency convertibility. More liberalized trade arrangements with other countries, and the amount of foreign direct investment and portfolio inflows, are indicators of the extent of links to the world economy, and of relative competitiveness.

**Central and Eastern Europe.** Transition economies in this region, except Bulgaria, posted relatively fast growth between 1994 and 1996 after severe contractions in the early 1990s associated with the switch from central planning. Poland, Hungary, and the Czech Republic are expected to register near 5 percent growth on average in the second half of the 1990s after undertaking market reforms and increasing openness to trade and competition. A reorientation of trade from the former Soviet Union to the West has contributed to their strong performance. But in some countries, like Bulgaria, reforms have only recently begun. Romania, which recently shed heavy state intervention in the economy, should soon expand in pace with its more advanced neighbors. The growth outlook for this region is relatively optimistic at over 4 percent in the next 10 years. A crucial advantage over the former Soviet Union is proximity and closer integration with the European Union. Foreign direct investment, particularly from high-cost countries like Germany, will increase the region's capacity to export. As the crossroads between the East and the West, the region should benefit as trade increasingly flows through its countries.

**The Former Soviet Union.** After almost a decade of economic retrenchments and setbacks, the countries of the former Soviet Union are poised for positive but slow growth over the next decade. In Russia, annual GDP growth is projected at 1.5 percent in 1999, rising to 3 percent by 2001. The smaller countries of the region have been growing since 1996, with growth projected to be 3 percent in 1998. Overall GDP growth for the region is anticipated to average between 3 and 3.5 percent from 2002 to 2007. The fruits of privatization and market-based pricing are finally contributing to production gains and more widespread consumption. Foreign direct investment appears to be gathering speed now that inflation is increasingly contained and the ruble is stabilizing. Capital flight is also less of a problem. Monetary policy by Russia's central bank, if not yet in full supervision of the banking system, has at least controlled credit creation and largely demonetized government spending.

Prospects for mid-term growth in Ukraine are modest but should also improve after its longer period of restructuring and weaning from government subsidies. Significantly increased trade with Russia and the other former Soviet republics is critical in the Ukraine's transition to a higher income country. The smaller countries of the FSU are expected to average higher growth rates because of increasing trade and production of agricultural products and natural resources, particularly crude oil and natural gas. Nevertheless, only large inflows of foreign investments can lift their relatively slow growth prospects.

**Developing Countries.** Overall, the developing countries will maintain close to 5.5 percent average growth over the next decade, compared with around 5 percent during 1990-96. Emerging markets in Latin America will continue to attract investment funds as long as the developed economies maintain their healthy growth or recovery, and if real interest rates in the United States, Europe, or Japan do not rise significantly. The currency devaluations in Southeast Asia will encourage more flexible exchange rates, which prevent overvalued currencies and act to discourage inflows of speculative funds or excessive borrowing of foreign money. Stronger financial systems and stricter banking regulation, reinforced by timely and transparent statistics, will reduce the risks of excessive lending and promote more stable growth paths in the longer run.

**Mexico.** The Mexican economy has almost fully recovered from its deep recession in 1995 that was



precipitated by the peso's devaluation in late 1994. While the domestic sector has not fully bounced back in terms of real wages and former consumption levels, business investment and export growth are healthy again. Mid-term growth prospects are in line with potential GDP of 5.5 percent. The inflow of foreign capital and expanded trade with the United States because of NAFTA have boosted Mexico's production and export capacity. The devaluation of the peso by about 50 percent in 1994-95 made Mexican exports more price competitive.

Starting in 1996, however, the peso has appreciated in real terms against the U.S. dollar, largely because of Mexico's success in attracting foreign investment funds. That is, despite a floating exchange rate and inflation higher than in the United States, confidence in holding pesos, and in the Mexican economy in general, is strong. But these gains in purchasing power have fueled Mexican imports, generating a trade deficit and a higher current account deficit. The long-term growth outlook falls slightly to 4.6 percent because Mexico needs to continue modernizing its infrastructure and build up competitive export industries. These entail imports of capital and intermediate inputs that would raise the current account deficit beyond 2000.

**South America.** Strong growth is projected for the area, led by the MERCOSUR core countries of Brazil and Argentina. Freer trade will further integrate these countries' economies as they gear up for eventual hemispheric free trade with NAFTA countries. Behind the strong growth is reduced debt, less government intervention in the private sector, growing intra-regional trade, and heavier foreign direct investment. The past environment of overvalued currencies, large trade deficits, fiscal deficits, and low internal investment due to low savings are not expected to return. New economic policies now generate less inflation and more competitive industries as import barriers fall. Still, double-digit inflation in many countries (except Argentina and Chile) will carry through the next decade. Savings as a share of GDP is projected to rise only slowly and remain substantially lower than in East and Southeast Asia. Because of this, the region's general dependence on foreign capital introduces the risk of capital flight in response to external shocks such as higher U.S. interest rates or another Mexican-type financial crisis.

**China.** While China's growth has been consistently the strongest in Asia for some time, it is expected to level off from double digits in the early 1990s to a more sustainable pace of around 8 percent in the next decade. With population growth of less than 1 percent per year, per capita GDP gains will remain impressive at above 7 percent annually. These gains will penetrate China's poor inner provinces and likely improve productivity in the agricultural sector as more capital-intensive farming and food processing are undertaken. Inflation has now subsided to single digits, but real output gains are expected to be slowed by adjustment problems of unemployment, as privatization of state-owned enterprises accelerates, and by competition from foreign firms. Credit supply will be directed less by the government and more by independent banks, and thus access to credit will increasingly be market-based. The eventual convertibility of the yuan in the capital account, which should attract more foreign equity funds, will also permit the outflow of domestic funds for foreign investments. Real wages will rise as worker productivity grows. The country's high savings rate will keep interest rates relatively low in spite of increasing demand for capital, especially to finance infrastructure projects. Competition for lower-value export markets should intensify as other developing countries, including Vietnam and India, increasingly enter those markets.

**East and Southeast Asia.** Output growth in East and Southeast Asia is projected in the baseline to remain strong over the next 10 years, despite 1997's currency devaluations and related slowdowns in the region. Average growth is projected at 6.8 percent over the next decade, down from 8.6 percent during 1990-96. In the near term, growth is expected to be slowed by currency devaluation and deflation of asset prices, especially in Thailand, Indonesia, and Malaysia. Economic growth in these countries is assumed to slow through 2000 from rates of recent years, but is then expected to recover. Exports, buoyed by increased exchange rate competitiveness and domestic demand, and high domestic savings, are expected to lead the recovery. For the baseline this near-term slowdown in economic growth is assumed to be largely confined to Southeast Asia, with no measurable impact on East Asia, South Asia, or China.

While the baseline assumption is that policy reforms and international financial support will allow the Southeast Asian economies to recover relatively quickly from the current crisis, several factors may

## The Asia Crisis: Baseline Assumptions and Impacts

The wave of exchange rate devaluations, stock market declines, and severe credit shortages in many East and Southeast Asian economies had just begun as the macroeconomic assumptions for this baseline were developed in November 1997. At that time, the number of countries affected, as well as the depth and duration of impacts on the region's economies, was uncertain. Based on information available in November 1997, the baseline assumed relatively moderate impacts on economic growth and real exchange rates in Thailand, Indonesia, Malaysia, and the Philippines, but not on other countries, either in East Asia or outside Asia.

For the four Southeast Asian countries, a significant slowdown in economic growth, along with continued exchange rate instability, is assumed in the baseline for 1998-2000. By 2001, however, economic growth rates are assumed to return to previously projected growth paths, and exchange rates to either stop depreciating or show a significantly slower loss of purchasing power. No impacts on long-term growth were forecast because of basically sound underlying economic fundamentals in the region, and the increased export competitiveness resulting from the currency devaluations. Reforms of banking practices, including opening of financial sectors to foreign investment and competition and liberalization of capital controls, as well as maintenance of more flexible exchange rates, will be needed to return to historic growth paths. If these reforms are not made, growth prospects in Southeast Asia, as well as in other parts of Asia, could be reduced over a longer period.

**Agricultural Trade Impacts.** The surge in Southeast Asian imports of feed grains, feed protein, and wheat during the 1990s has been driven largely by rising incomes and import capacity, increasing urbanization, and population growth. The financial crisis affects agricultural imports by slowing income growth and, due to devaluation, by sharply increasing local currency prices faced by domestic consumers and producers. Declines in import demand will be most significant where consumption is most sensitive to changes in income or prices, or where domestic

production can respond to higher prices and substitute for imports.

Based on these factors, Southeast Asian imports of feeds, particularly corn, are likely to be most affected by the crisis. Rising meat consumption in the region has been met almost entirely by domestic production that is increasingly dependent on imported corn and soy protein. Slowed growth in meat demand and production and, particularly in the case of Thailand, higher local feed production, will slow demand for feed imports. Wheat import demand is expected to be less significantly affected because of its important role in urban diets and the lack of local production capacity. Rice imports by Indonesia and, to a lesser extent, the Philippines, are projected to be lower due to the crisis, primarily because of supply response to higher local currency prices. Cotton import demand is expected to be down slightly, as lower domestic textile demand is largely offset by the increased competitiveness of the region's textile-based exports.

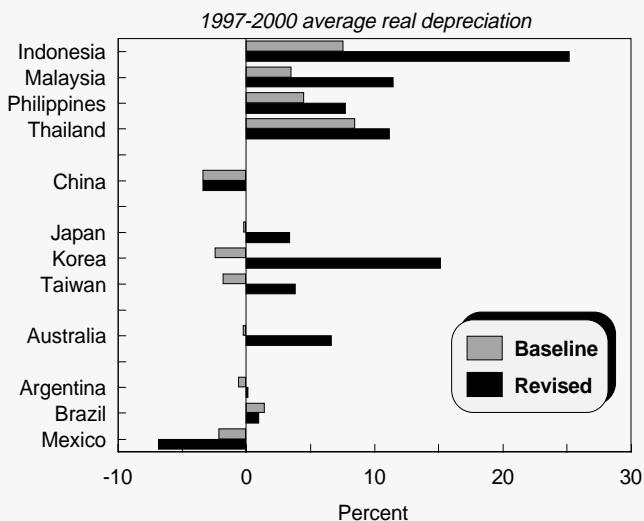
The region's farm exports are expected to be more competitive following devaluation. Gains are expected in Thailand's exports of rice and poultry. And, although palm oil production should not respond to higher prices in the near term, higher domestic consumer prices are expected to eventually release more supplies of Malaysian and Indonesian palm oil into world markets.

**Other Scenarios.** Following completion of the baseline, ERS conducted an update assessment of the crisis, revising macroeconomic assumptions based on information available as of late December 1997. The revised assumptions call for deeper income and exchange rate impacts in Southeast Asia, as well as significant impacts in East Asia and several other developing countries. Economic impacts were still assumed to be confined to the 1997-2000 period, and assumed impacts on China's growth and exchange rate remained negligible. With the revised assumptions, projected world prices of wheat, corn, and soybeans average 2-3 percent below the baseline for 1997-2000, and meat prices average 3-5 percent lower. Somewhat smaller impacts on global trade

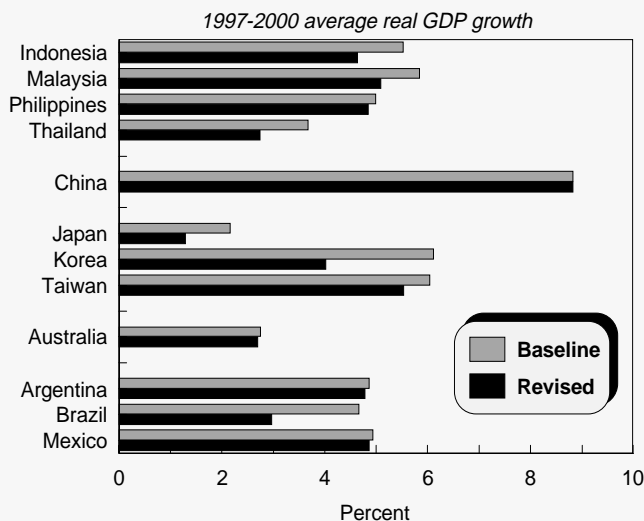
reflect increased quantities demanded elsewhere in response to lower prices. Wheat, corn, soybean, and cotton trade average about 1 percent below the baseline for 1997-2000. Potential meat trade impacts are more varied, with relatively large impacts on pork trade led by declining Korean demand, negligible overall impacts on poultry trade, and price-responsive beef import demand in non-Asian markets offsetting losses in Asia.

Other scenarios, involving deeper or longer term disruption of the Asian economies would have more significant impacts than those included in the baseline or the alternative scenario. Also, China's imports appear to be both income- and price-responsive. Significantly slower economic growth in China, or devaluation of the yuan, would have larger impacts on prospects for global trade in wheat, corn, and soybeans and products.

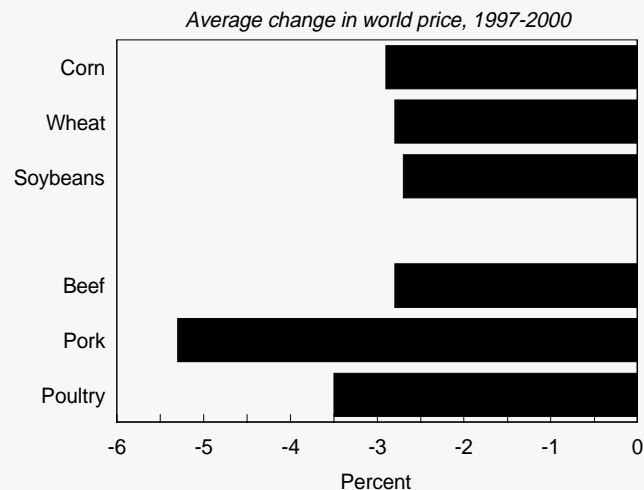
**Asia crisis: Revised real exchange rate assumptions**



**Asia crisis: Revised real GDP growth assumptions**



**Asia crisis: Estimated price impacts of revised assumptions**



**Asia crisis: Estimated trade impacts of revised assumptions**

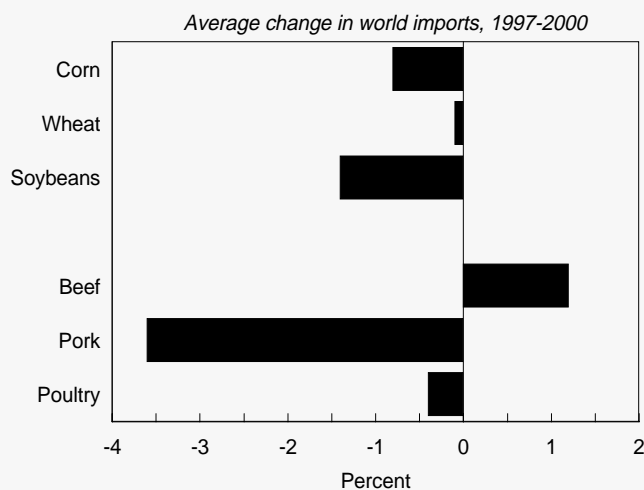


Table 4--Foreign real GDP baseline growth assumptions

Region/country	1995	1996	1997	1998	1999	2000	2001	Average		
								1990-1996	1997-2001	2002-2007
	Percent change									
World	2.4	3.0	3.2	3.0	3.0	3.3	3.3	2.3	3.2	3.2
less U.S.	2.5	3.0	3.1	3.4	3.4	3.6	3.6	2.4	3.4	3.6
Developed economies	2.0	2.4	2.7	2.5	2.4	2.6	2.5	2.0	2.5	2.4
United States	2.0	2.8	3.5	2.3	2.3	2.6	2.6	1.9	2.7	2.4
Canada	2.2	2.2	2.5	3.0	3.1	3.1	3.1	1.4	3.0	2.9
Japan	0.9	3.4	1.4	2.6	2.3	2.4	2.5	2.1	2.2	2.3
Australia	3.3	4.3	3.0	2.9	2.6	2.6	2.5	2.8	2.7	2.5
European Union-15	2.5	1.3	2.5	2.5	2.4	2.6	2.4	1.9	2.5	2.2
Transition economies	-3.1	-3.7	0.2	1.2	2.1	2.8	3.3	-6.9	1.9	3.5
Eastern Europe	5.2	4.6	4.9	5.1	4.0	4.2	4.2	-0.4	4.5	4.2
Czech Republic	5.0	4.2	4.9	5.1	3.6	3.6	3.6	-1.6	4.1	3.6
Hungary	1.5	1.4	3.9	5.1	4.1	4.1	4.1	-1.0	4.3	4.1
Poland	6.6	6.1	5.3	5.1	4.0	4.5	4.5	0.8	4.7	4.5
Former Soviet Union	-5.2	-6.1	-1.3	-0.1	1.4	2.3	2.9	-8.4	1.0	3.2
Russia	-4.0	-6.0	-1.0	0.0	1.5	2.5	3.0	-7.8	1.2	3.2
Ukraine	-11.8	-10.0	-5.0	-2.0	0.0	1.0	2.0	-11.6	-0.8	3.2
Other	-3.6	1.8	2.5	3.0	3.0	3.2	3.7	-7.4	3.1	3.4
Developing countries	4.4	5.6	5.4	5.0	5.2	5.5	5.6	5.1	5.3	5.5
Asia	8.2	7.3	6.5	6.5	6.4	6.6	6.7	7.8	6.5	6.6
East & Southeast Asia	8.8	7.7	6.9	6.7	6.6	6.9	7.0	8.6	6.8	6.8
China	10.7	10.0	9.0	8.9	8.8	8.7	8.6	10.8	8.8	8.2
Hong Kong	4.6	4.2	4.8	5.0	4.9	4.9	4.8	5.0	4.9	4.7
Korea	9.0	6.8	6.4	6.1	6.0	6.0	5.9	7.7	6.1	5.6
Taiwan	6.1	5.5	6.4	6.1	6.1	5.8	5.6	8.6	6.0	5.6
Indonesia	8.1	6.8	5.5	5.2	4.8	6.0	6.3	7.8	5.6	6.2
Malaysia	9.4	8.2	5.5	5.4	5.0	6.0	7.0	8.8	5.8	7.0
Philippines	4.8	5.5	5.0	5.0	5.0	5.0	5.0	2.8	5.0	5.0
Thailand	8.7	6.7	2.7	2.0	1.0	4.0	6.0	8.6	3.1	6.0
Vietnam	9.5	9.7	9.7	9.7	9.5	9.5	9.5	7.9	9.6	9.2
South Asia	5.8	5.5	4.9	5.5	5.6	5.5	5.5	4.7	5.4	5.4
India	6.1	5.7	5.0	5.7	5.7	5.6	5.6	4.8	5.5	5.5
Pakistan	4.4	4.4	4.4	4.8	5.3	5.3	5.3	4.6	5.0	5.3
Bangladesh	4.4	5.0	5.0	4.3	4.3	4.3	4.3	4.6	4.4	4.3
Latin America	-1.3	3.7	4.5	4.4	5.1	5.0	5.1	2.1	4.8	4.7
Caribbean & Central America	3.1	3.0	3.0	3.4	3.6	3.7	3.7	2.9	3.5	3.4
Mexico	-7.2	5.1	4.9	4.1	5.4	5.4	5.5	1.9	5.0	4.6
South America	1.0	3.3	4.3	4.6	5.1	4.9	4.9	2.2	4.8	4.8
Argentina	-4.6	4.4	5.2	4.9	4.8	4.6	4.9	4.4	4.9	4.9
Brazil	3.0	2.9	4.0	4.4	5.2	5.0	5.0	1.5	4.7	4.8
Other	4.1	1.4	3.8	4.3	4.7	4.8	4.8	3.5	4.5	4.4
Middle East	2.9	4.7	4.7	3.3	3.6	4.1	4.4	4.4	4.0	4.3
Iran	2.7	4.9	4.6	2.6	3.2	4.3	4.8	5.5	3.9	4.6
Iraq	1.5	42.0	16.7	4.3	4.4	4.4	4.4	-2.7	6.8	4.4
Saudi Arabia	-2.4	-0.1	4.6	3.8	3.5	3.2	3.2	2.6	3.7	3.2
Turkey	6.8	3.0	3.8	4.8	4.8	4.5	4.5	4.1	4.5	4.4
Other	3.7	3.7	3.7	3.7	3.7	3.7	3.7	6.4	3.7	3.7
Africa	3.0	3.5	3.2	3.3	3.6	3.6	3.6	1.9	3.5	3.6
North Africa	2.2	5.0	4.1	4.2	4.2	4.2	4.2	2.0	4.2	4.1
Algeria	4.3	4.6	2.8	2.8	2.8	2.8	2.8	0.9	2.8	2.8
Egypt	4.2	5.2	5.0	5.3	5.0	5.1	4.9	2.6	5.1	4.4
Morocco	-5.0	5.0	4.8	5.0	5.1	5.1	5.1	2.3	5.0	5.1
Tunisia	3.2	6.1	5.6	5.6	5.6	5.6	5.6	5.1	5.6	5.6
Sub-Saharan Africa	3.5	2.0	2.9	2.7	3.0	3.0	3.0	2.9	2.9	3.0
South Africa	3.4	3.2	2.3	2.8	3.5	3.5	3.5	0.8	3.1	3.5

Sources: DRI; Project LINK; Economic Research Service, U.S. Department of Agriculture.

The macroeconomic assumptions were completed in October 1997.

prevent as rapid a recovery as occurred in Mexico following the December 1994 devaluation of the peso. First, Japan provides a market for about 13 percent of developing Asia's imports, and Japan's economy is expected to show only sluggish near-term growth. Thus, there is no large neighboring market to drive a rapid recovery of the region's exports, as the United States did for Mexico. Second, about 40 percent of developing Asia's exports are typically destined for Asian markets other than Japan. Thus, the region-wide slowdown will be a significant drag on recovery. Recovery will also be affected by the fact that intra-regional investment, particularly from Japan, accounts for a large share of trans-border investment in the region. As a result, domestic savings performance and expansion of extra-regional trade will be important factors in the pace of recovery.

Growth in East Asia (Korea and Taiwan) is projected to continue to be strong, but will gradually decline to more sustainable rates over the long term as these economies mature. As in Southeast Asia, East Asian growth depends largely on strong import demand from inside and outside Asia. Healthy expansion in North America and Europe over the mid-term will help buoy growth in East Asia. China's continued growth of over 8 percent will remain a source of strong import demand for other East Asian exports.

A box on the Asia crisis (page 12) provides more details on the impacts accounted for in the baseline, as well as estimated impacts of more severe macroeconomic shocks.

**South Asia.** While growth rates in South Asia are not expected to match East and Southeast Asia's, even over the long term, per capita gains of about 3.6 percent per year are expected nonetheless. India, which produces 82 percent of the area's output, will grow on average by 5.5 percent annually, followed closely by Pakistan. Like China, India's large and increasingly liberalized domestic market will provide the bulk of the impetus for growth. India should also be capable of producing a more diversified set of export products, both manufactured and agricultural. Investment policy is increasingly liberalized and the inflow of foreign capital will boost the region's production capacity.

Promising export markets include the neighboring regions of the Middle East and the former Soviet Union, especially for lower-value products. The prox-

imity to energy sources in the Middle East and, in the future, to energy from Central Asia, should likewise be a boon. Potentially in the long run, exports of higher-technology products, especially from India, will generate currency reserves needed to help improve the region's infrastructure and industrial capacity. Competitive gains will depend on the region's low-cost labor, more open trade and investment policies, and real exchange rates that are not distorted by restrictions on capital flows.

**Africa and the Middle East.** The plentiful supply of fossil fuel, particularly oil, that will be produced in Central Asia after the turn of the century is projected to hold world energy prices to only modest growth over the long run. This expectation, as well as the region's continued fast population growth, will hamper the real per capita output gains especially in the oil-exporting countries of the Middle East. Despite uncertainty in Iraq and Iran, future growth is assumed at over 4 percent. Combined with similar GDP expansion in Turkey, growth in the Middle East region is projected at a steady rate near 4 percent.

In Africa, potential growth hinges on the performance of Egypt, Nigeria, and South Africa, the continent's largest countries. Whereas GDP growth in Egypt is projected to be relatively strong, Nigeria and South Africa are not expected to grow as fast. Nigeria, because of continued political instability, corruption, and largely unskilled labor, will be unable to attract enough foreign investment and take advantage of its abundant oil resources. In South Africa, a large labor force of unskilled workers, high interest rates because of budget problems, and general social discontent will pose risks for investors and limit growth. The politically troubled countries of Algeria, Sudan, and Congo will drag overall growth down in North Africa and in Sub-Saharan Africa. Nevertheless, increased North African trade with Europe and market reforms in some East and West African countries are generating relatively faster growth. The multilateral proposal by developed countries to partially forgive foreign debts of the poorest countries that have initiated reforms should help sustain early gains and may encourage further reforms.

### **Population Growth Assumptions**

Population assumptions for the United States and most foreign countries are based on projections by the U.S. Department of Commerce, Bureau of the Census. For

Table 5--Baseline population growth assumptions

Region/country	1995	1996	1997	1998	1999	2000	2001	Average		
								1990-1996	1997-2001	2002-2007
	Percent change									
World	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.5	1.4	1.2
less U.S.	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.5	1.4	1.3
Developed economies	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5
United States	1.0	0.9	0.8	0.9	0.9	0.9	0.9	1.0	0.9	0.8
Canada	1.2	1.1	1.0	1.0	1.0	0.9	0.9	1.3	1.0	0.8
Japan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1
Australia	1.0	1.0	1.0	0.9	0.9	0.9	0.9	1.2	0.9	0.8
European Union-15	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2
Transition economies	-0.0	-0.0	0.0	0.1	0.2	0.3	0.3	0.1	0.2	0.3
Eastern Europe	-0.2	-0.2	-0.1	-0.0	0.1	0.2	0.3	-0.2	0.1	0.2
Czech Republic	-0.0	-0.0	-0.0	0.0	0.1	0.2	0.2	0.0	0.1	0.1
Hungary	-0.7	-0.7	-0.7	-0.6	-0.5	-0.4	-0.3	-0.6	-0.5	-0.3
Poland	0.2	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.4
Former Soviet Union	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.4
Russia	-0.0	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1	0.0	0.1
Ukraine	-0.5	-0.4	-0.4	-0.3	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1
Other	0.5	0.5	0.6	0.7	0.8	0.9	1.0	0.9	0.8	1.0
Developing countries	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.8	1.6	1.5
Asia	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.6	1.4	1.2
East & Southeast Asia	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.3	1.1	0.9
China	1.0	1.0	1.0	0.9	0.9	0.8	0.8	1.1	0.9	0.7
Hong Kong	2.1	1.9	1.7	1.5	1.4	1.2	1.2	1.6	1.4	1.0
Korea	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.8
Taiwan	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.8
Indonesia	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.6	1.5	1.3
Malaysia	2.2	2.1	2.1	2.0	2.0	1.9	1.9	2.2	2.0	1.8
Philippines	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.3	2.1	1.9
Thailand	1.1	1.0	1.0	1.0	1.0	0.9	0.9	1.2	1.0	0.8
Vietnam	1.7	1.6	1.6	1.5	1.4	1.3	1.3	1.9	1.4	1.2
South Asia	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.9	1.7	1.5
India	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.8	1.5	1.4
Pakistan	2.7	2.7	2.8	2.8	2.8	2.7	2.7	2.8	2.7	2.6
Bangladesh	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.9	1.8	1.5
Latin America	1.6	1.5	1.5	1.5	1.4	1.4	1.3	1.7	1.4	1.2
Caribbean & Central America	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.8	1.6	1.5
Mexico	1.9	1.9	1.9	1.8	1.8	1.8	1.7	2.0	1.8	1.6
South America	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.6	1.3	1.1
Argentina	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.0
Brazil	1.3	1.2	1.1	1.1	1.0	0.9	0.9	1.4	1.0	0.8
Other	1.9	1.8	1.8	1.7	1.7	1.6	1.6	2.0	1.7	1.5
Middle East	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.4	2.3
Iran	2.4	2.3	2.2	2.1	2.0	2.2	2.3	2.7	2.2	2.1
Iraq	2.3	2.5	2.8	2.9	3.0	3.0	2.9	2.3	2.9	2.8
Saudi Arabia	2.8	3.2	3.5	3.7	3.6	3.5	3.3	2.9	3.5	3.1
Turkey	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.7	1.5	1.3
Other	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.7	3.2	2.9
Africa	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.5
North Africa	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.2	1.9	1.8
Algeria	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.4	2.1	2.0
Egypt	2.0	1.9	1.9	1.9	1.8	1.8	1.8	2.2	1.8	1.7
Morocco	2.1	2.1	2.1	2.0	2.0	1.9	1.9	2.2	2.0	1.8
Tunisia	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.9	1.7	1.6
Sub-Saharan Africa	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.8
South Africa	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.1

Sources: U.S. Department of Commerce, Bureau of the Census; United Nations.

The population assumptions were completed in August 1997.

selected countries, primarily in the Africa and Middle East region, population assumptions are based on projections by the United Nations. For both sources, the projections used for this report are based on updates available in August 1997.

The projections show slowing population growth rates in virtually all countries and regions over the 1996-2007 projection period. Africa and the Middle East will continue to have the fastest growing population over the next decade, averaging 2.4 to 2.5 percent per year. The next fastest growing regions are Asia and Latin America, each averaging 1.3 percent per year. These assumptions indicate that per capita GDP gains in Asia and Latin America will outpace those of

Africa and the Middle East by a bigger margin than their GDP growth differentials.

The populations in the developed and transition economies are projected to grow by only 0.5 percent per year or less, with the slowest rates in Russia, Eastern Europe, Japan, and the European Union. Overall, the number of people in the world will increase at a declining rate, and per capita GDP will rise by an average 2 percent per year. By 2007, when the world's population will total 6.5 billion, and with 80 percent living in developing countries, GDP per person will average \$4,900 (in 1990 dollars), up from \$4,100 in 1997.

# U.S. Agricultural Policy Assumptions

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The baseline projections assume a continuation of agricultural legislation and policy decisions as of November 1997. The baseline reflects provisions of the Federal Agriculture Improvement and Reform Act of 1996 (1996 Farm Act), which was signed into law on April 4, 1996. The 1996 Farm Act fundamentally redesigned income support programs and discontinued supply management programs for producers of major field crops. The new law replaced a system of deficiency payments for wheat, corn, grain sorghum, barley, oats, rice, and upland cotton, with a system of fixed production flexibility contract payments that are largely decoupled from production, since there is virtually no link between payments and current plantings. The 1996 Farm Act expanded planting flexibility and let authority expire for Acreage Reduction Programs (ARPs) and 0,50/85-92 provisions. It also reauthorized the Conservation Reserve Program and reduced Export Enhancement Program (EEP) funding.

The 1996 Act encompasses a wide range of issues related to agriculture, including commodities, trade, conservation, nutrition assistance, agricultural promotion, credit, rural development, research, extension, and education. Major changes and assumptions affecting the trade projections are summarized below. For more detail on the U.S. policy assumptions, see *USDA Agricultural Baseline Projections to 2007 (WAOB-98-1)*.

## Planting Flexibility and Contract Payments

The 1996 Farm Act fundamentally changed U.S. agricultural programs by eliminating supply management, increasing planting flexibility, and changing income supports for “contract crops” (wheat, corn, grain sorghum, barley, oats, rice, and upland cotton). Planting flexibility increased under the 1996 Farm Act. Participating producers are permitted to plant 100 percent of their contract acreage plus any other cropland acreage on the farm to any crop (with limitations on fruits and vegetables) with no loss in payments, as long as the producer does not violate conservation and wetland provisions.

The 1996 Farm Act changed income supports by replacing the annual target price/deficiency payment

program with a 7-year program of decoupled payments that are not related to most farm-level production decisions or market prices. To receive payments and be eligible for loans on contract commodities, a producer had to enter into a production flexibility contract (PFC) for 1996-2002 during the one-time enrollment period held in 1996. The production flexibility contract requires the participating producer to comply with conservation, wetland, and planting flexibility provisions, as well as to keep the land in agricultural or related uses. Farmers receive production flexibility contract payments for 7 years, 1996-2002. Cumulative outlays for contract payments for fiscal 1996-2002 are capped at slightly over \$36 billion. Production flexibility contracts are assumed to continue beyond 2002 in the baseline. Annual funding for production flexibility contracts for 2003-2007 is assumed to remain fixed at the 2002 level of \$4.008 billion.

## Conservation Programs

The 1996 Farm Act addressed a wide range of environmental and conservation programs. The Environmental Conservation Acreage Reserve Program (ECARP) was established to include the Conservation Reserve Program (CRP), the Wetland Reserve Program (WRP), and the Environmental Quality Incentives Program (EQIP).

The CRP was reauthorized in the 1996 Farm Act. Maximum CRP enrollment is set at 36.4 million acres. For 1998, the CRP is assumed to have more than 32 million acres enrolled. Enrollments in subsequent years are assumed in the baseline to increase the CRP to 36.4 million acres by 2001. Authority to sign up and enroll acreage in the CRP is assumed to be extended after 2002 to maintain CRP acreage at 36.4 million acres.

The EQIP is authorized at \$1.33 billion during 1996-2002 to provide technical, educational, and cost-share assistance and incentive payments to crop and livestock producers in implementing structural and management practices to protect soil and water resources. The WRP will have an enrollment cap of 975,000 acres. Program changes provide more flexibility and help landowners work toward a goal of no net loss of wetlands.



## Major Trade Programs

Trade and food aid programs in the 1996 Farm Act are focused more heavily on market development, including an emphasis in some programs on emerging markets with high potential for U.S. export growth.

Total EEP funding during fiscal 1996-1999 was reduced in the 1996 Farm Act to more than \$1.6 billion below the maximum levels permitted under the Uruguay Round Agreement. However, there were no EEP expenditures in FY 1997 and, since the EEP program is not currently being used, the baseline assumes that no EEP expenditures occur in fiscal 1998. Starting in FY 1999, EEP expenditures are assumed to resume in the baseline. EEP funding is assumed to total about \$1.2 billion over the 5-year period from FY 1999 through FY 2003. Annual funding during those years is assumed to be determined by USDA administrative discretion, subject to a \$320 million limitation in fiscal 1999. Funding not used in one year is assumed to remain available for use in a subsequent year, although annual EEP expenditures would still be limited by the maximum yearly levels permitted under the Uruguay Round Agreement. For the United States and other countries, the baseline assumes no carryover of unused, GATT-permitted export subsidies to later years.

The 1996 Farm Act mandates annual program levels of \$5.5 billion for GSM-102 and GSM-103 credit guarantee programs, but allows flexibility in determining

how much is available for each program. Under the 1996 Farm Act, an additional \$1 billion for fiscal 1996-2002 is provided for emerging market countries, assumed in the baseline at \$200 million a year over 1998-2002, bringing total available annual funding to \$5.7 billion. However, fiscal 1997 obligations were \$2.9 billion. New obligations for subsequent years are assumed to also be lower than available annual funding, with \$5.0 billion assumed for fiscal 1998 and \$4.615 billion assumed annually for fiscal 1999 and later years. These assumptions for new obligations are based on forecast economic and market conditions and the expected supply/demand conditions of the countries to which GSM credit guarantees will be made available.

The 1996 Farm Act authorizes P.L. 480, Title I agreements with private entities in addition to foreign governments. P.L. 480 program levels assumed in the baseline for fiscal 1998 are \$226.9 million for Title I Credit, \$17.608 million for Title I Ocean Freight Differential, \$837 million for Title II, and \$30 million for Title III. For fiscal 1999 and subsequent years, P.L. 480 program levels for Title I Credit and Title I Ocean Freight Differential are assumed to be constant in nominal dollars at \$102.163 million and \$9.395 million, respectively. Title II and Title III program levels are held constant at \$837 million and \$30 million, respectively, for fiscal 1999, but then are assumed to grow about 2.1 percent annually for the rest of the baseline.

# Foreign Agricultural Policy Assumptions and Highlights

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Policy assumptions underlying both U.S. and foreign projections are based on full compliance with all bilateral and multilateral agreements affecting agriculture and agricultural trade as of January 1998. Bilateral agreements affecting agricultural trade between the United States and Canada, the United States and Mexico, the United States and Japan, and the United States and Korea are examples of recent agreements for which full compliance is assumed. In contrast, no compliance is assumed for any agreements not formally ratified by November 1997.

For multilateral agreements, the projections assume full compliance with the internal support, market access, and export subsidy provisions of the Uruguay Round Agreement on Agriculture by all parties to the agreement. Several potential multilateral agreements that could have a significant impact on agricultural trade are now under consideration, but are assumed not to occur in these projections. These include:

- No accession to the World Trade Organization (WTO) by the FSU, China, or Taiwan;
- No enlargement of the EU-15 to add one or more Central or East European countries;
- No implementation of more liberalized trade among the Asia-Pacific Economic Cooperation (APEC) countries; and
- No expansion of NAFTA to include additional countries.

Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current path, based on the consensus judgment of regional and commodity analysts. In particular, the process of liberalizing economic and trade reform underway in many developing countries is assumed to continue. Similarly, the development and use of agricultural technology and changes in consumer preferences are assumed to continue to evolve based on past performance and analyst judgment regarding future developments. Key assumptions underlying the projections for major foreign countries are summarized below.

## European Union

The baseline projections for the European Union (EU) incorporate policy changes adopted as part of the 1992-93 reform of the Common Agricultural Policy (CAP), as well as EU commitments under the Uruguay Round agreement that limit subsidized exports and improve market access. The final price cuts under the 1992 CAP reform took place during 1995/96. Basic support prices are assumed to remain at 1995/96 nominal levels for most commodities, but internal market prices may be driven below support levels in order to clear domestic markets. If Uruguay Round limits on subsidized exports are binding, excess supplies will have to be absorbed on the internal market, driving market prices down. The annual set-aside program instituted for grains, oilseeds, and protein crops is assumed to remain in effect, with the set-aside rate being the key policy instrument to adjust production to market conditions.

The baseline assumes that the EU's Uruguay Round commitment on internal support is not a binding constraint, since many policies resulting from CAP reform meet the WTO "production-limiting" criteria and are exempt from reduction commitments. Tariffication of nontariff barriers and tariff reductions are assumed to have little impact because the high tariff equivalents established for most products are unlikely to permit significant additional imports. Continued high levels of import protection mean that price transmission from the world market will be negligible for all baseline commodities except oilseeds and products and, in the later years, wheat. The most important Uruguay Round commitments for the baseline are the limits on subsidized exports and the minimum import levels agreed under the market access provisions.

There is significant uncertainty about the measures the EU will use to meet its subsidized export and minimum import commitments under the Uruguay Round agreement. The baseline assumes that the EU will use current policy mechanisms to meet its limits on subsidized exports. For grains, it is assumed that any production in excess of intervention purchases and on-farm use that cannot be exported will depress the

## Potential Trade Impacts of EU Enlargement

Ten Central and East European (CEE) countries<sup>1</sup> have applied for membership in the European Union (EU-15). The Agenda 2000 communication, presented by the European Commission in July 1997, recommends that accession negotiations begin in 1998 to define the terms and conditions of accession for Hungary, Poland, Estonia, the Czech Republic, and Slovenia. The actual timetable for accession will depend on each country's progress in meeting EU policy targets. It is doubtful that any country would join before 2002. If the five remaining countries can meet the necessary conditions to enter into negotiations, the European Commission will recommend that they too begin accession negotiations.

The baseline projections do not incorporate impacts of EU enlargement because of uncertainty over which countries will accede, and the timing and terms of accession. USDA/ERS has, however, conducted preliminary analysis on the potential impacts of two scenarios: one where the current Common Agricultural Policy (CAP) is applied to the acceding CEE countries, and another ("New CAP") where agriculture in the enlarged EU faces world prices and the acreage set-aside program of the current CAP is abolished. The analysis assumed the accession of the Visegrad-4 countries (Czech Republic, Hungary, Poland, and Slovakia) to form the EU-19.

In both scenarios, the agricultural economies of the EU-15 and the acceding CEE countries would experience major adjustments. Agricultural commodity prices in the EU are typically above world prices, while most CEE prices are below world prices. Thus, adopting EU prices would stimulate CEE farm output and reduce consumption. If the EU-19 adopted world prices, the increase in CEE production would be smaller, while EU-15 production would

decrease and EU-15 consumption would increase. The impacts would be greatest for those commodities with the largest price differences.

Under both scenarios, CEE meat prices increase significantly, spurring production and discouraging consumption. Meat production shifts somewhat from the EU-15 to the CEE countries. The new EU-19 would continue to have exportable surpluses of meat, with the surpluses much larger if accession occurred at CAP prices. CEE and EU-15 grain production increases in response to higher prices under both scenarios. Under the terms of the current CAP, grain exports of the EU-19 would likely fall, with higher CEE feed use more than offsetting increased CEE production. If the EU-19 adopted world prices and abolished the set-aside, the estimates suggest that the EU-19 could be a larger exporter of wheat but, due to lower production and higher consumption of coarse grains, a smaller overall grain exporter. These estimated impacts do not include world price effects which, in the case of the new CAP scenario, would likely reduce estimated exports of wheat and meat, as well as imports of coarse grain.

Net surpluses under alternative EU enlargement scenarios

	Baseline	Enlargement scenario 1/	
	(2002-05 avg)	CAP	New CAP
	Million tons		
EU-15			
Grains	24.9	24.9	30.4
Wheat	18.5	18.5	37.4
Meats	2.0	2.0	-2.0
Visegrad-4 2/			
Grains	1.2	-13.4	-12.5
Meats	0.4	4.7	4.7
EU-19			
Grains	26.0	11.5	17.9
Meats	2.4	6.6	2.6

1/ CAP scenario assumes enlargement under prices and acreage controls of current Common Agricultural Policy. "New CAP" scenario assumes movement to world prices and elimination of acreage controls.

2/ Visegrad-4 includes the Czech Republic, Hungary, Poland, and Slovakia.

Source: ERS estimates.

<sup>1</sup>The 10 countries are Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

internal market price and dampen output. The EU will use the set-aside rate to constrain surplus production. The set-aside rate is set at 5 percent from 1997/98 to 1999/00 and then increased to 10 percent for the remainder of the baseline. Under baseline market conditions, maintaining a 5-percent set-aside would likely lead to the accumulation of surplus grain stocks, while raising the set-aside toward the EU statutory level of 17.5 percent would result in forgoing opportunities to produce and export wheat without subsidy. In the longer term, the baseline assumes that the EU will not increase intervention purchases and accumulate stocks beyond the historical average level; accumulation of intervention stocks is viewed as a short-term strategy for dealing with excess grain supplies. The baseline assumes that the EU will export grain without subsidy only when the world price is equal to or greater than the average EU price. For pork and poultry, the baseline assumes that market prices adjust to clear the internal market and that more than half of all EU exports are unsubsidized.

There is also uncertainty regarding what measures the Commission will adopt to deal with the projected imbalance between beef production and consumption in the wake of the bovine spongiform encephalopathy (BSE) crisis. The effect of the herd liquidation program because of the "mad cow" crisis is included. Continued limited intervention for beef, a shrinking dairy herd, and measures to encourage less intensive production methods are also assumed to limit beef production. To prevent surpluses from accumulating in the face of lower consumption, it is assumed that revisions to the CAP will further reduce beef producer incentives.

The baseline assumes that there is no enlargement of the EU-15 to add one or more Central or East European countries. Accession of the large agricultural-producing CEE countries could cause serious problems for the CAP in its current form and would likely require changes in that policy. Similarly, the baseline does not incorporate implementation of the proposed "Agenda 2000" policy reforms which will be considered by EU policymakers during 1998. Implementation of the proposed reforms could also have significant impacts on the projections.

## Asia and Oceania

**Australia.** Australia has returned to more normal output after last year when there was record wheat production and prices. Fears that El Niño would devastate the crop

have not materialized, although parts of Australia did experience much drier than usual conditions. Producer returns are up for beef but down for crops with the drop in grain prices. The number of cattle in feedlots is expanding as feed prices are down. As producers attempt to maximize returns, some switching will occur in the baseline between types of crops produced, as well as between crops and livestock.

Production for export dominates Australian agriculture and is expected to continue to do so in the future. With increasing populations and incomes forecast globally, exports and production of the major commodities are forecast to continue to expand. Key issues in the outlook for production are the response of Australian producers to uncertainties regarding price variability and the availability of water. Until more irrigated area is available, area expansion will be low for some crops. Crops are again to be planted in the Ord River project in Western Australia, and several new dams are in the planning stage.

While little growth in wheat area is expected, growth in wheat yields is projected to support increases in both exports and domestic feeding of wheat. Further growth in rice exports, however, will be very limited due to constraints on increasing either area or yield. Increases in barley output will depend primarily on yield gains, with the share of barley area and exports devoted to malting barley continuing to rise. Cotton yield, production, and export growth remain heavily dependent on the availability of irrigation water and are projected to show moderate gains. Cotton production and exports could, however, show stronger gains if production resumes in the Ord River region, or in newly developed irrigated areas. Although low prices and more favorable returns for other enterprises may limit growth of the cattle herd in the short run, beef production and exports are projected to increase in the medium term.

**China.** China's economy is assumed to continue to grow at a rapid but gradually declining rate over the projection period. Average annual real GDP growth is forecast to fall from 8.9 percent in 1998 to 7.8 in 2007. This assumes China will continue to reform its economy gradually, with reform efforts focusing on restructuring and improving the performance of state-owned enterprises. Also, domestic and foreign direct investment are assumed to continue to grow, though at a declining rate. Investment in port, rail, road, and power generation infrastructure is, in general, expected

## China Food Demand Elasticities

The responsiveness of food demand in China to changes in income (income elasticities) and changes in own prices (own price elasticities) are critical variables in the projections for China. The elasticities used in the USDA projections were estimated using data from the Urban and Rural Household Consumption and Expenditure Surveys conducted by China's State Statistical Bureau. These data permit estimates that capture the difference in consumer behavior between urban and rural households for a range of food commodities, including rice, wheat, coarse grain, beef and lamb (combined), poultry meat, pork, eggs, fruit, vegetables, sugar, and edible vegetable oil. Estimates for these commodities were then used to derive estimates for commodities for which no data were available (soybeans, beef and veal, and lamb and mutton (individually), fish, and other food).

Because consumers tend to adjust food spending behavior as incomes rise, it is appropriate to adjust income elasticities over time in long-term

projections. For China, these adjustments were based on analyst judgment. For higher-income urban consumers, most income elasticities of food demand are expected to decline over time as a rising share of new income is spent on nonfood items. For generally lower income rural consumers, income elasticities for food staples are expected to decline, while those for animal products, fruits, and vegetable products are expected to remain high, or even rise.

The elasticity estimates used in the China projections are summarized in the table below. They show relatively low income and price responsiveness for food staples, but relatively high income and price-responsiveness for animal products, fish, fruits, and vegetables. It should be noted, however, that the data used for the estimation procedure were not always complete, sometimes necessitating estimation of missing values and/or instances where data observations were not sufficient to ensure robust results.

China: Estimates and assumptions of income and own-price elasticities for food demand

Commodity	Urban			Rural		
	Income		Own-price	Income		Own-price
	1998	2007		1998	2007	
Rice	-0.10	-0.20	-0.30	0.05	-0.10	-0.20
Wheat	-0.05	-0.20	-0.30	0.20	0.05	-0.12
Coarse grains	-0.14	-0.20	-0.30	-0.10	-0.20	-0.05
Soybeans	-0.10	-0.20	-0.50	0.05	-0.10	-0.45
Sugar	0.46	0.20	-1.05	0.90	0.90	-1.25
Beef & veal	1.75	1.60	-1.70	1.80	2.00	-1.40
Lamb & mutton	1.75	1.60	-1.75	1.80	1.50	-1.33
Pork	0.50	0.45	-0.96	0.80	0.70	-0.65
Poultry meat	0.99	0.80	-1.16	1.10	1.00	-0.80
Fish	0.93	0.85	-0.96	0.93	1.00	-0.75
Eggs	0.31	0.27	-0.80	0.52	0.45	-0.55
Edible vegetable oil	0.51	0.45	-0.85	0.70	0.55	-0.80
Fruits	0.76	0.80	-1.10	0.90	1.15	-0.75
Vegetables	0.45	0.40	-0.49	0.70	0.85	-0.60
Other food	0.35	0.50	-0.70	0.70	0.70	-0.39

Source: ERS estimates.

## Potential Impacts on Agricultural Trade Arising from China's and Taiwan's Accession to WTO

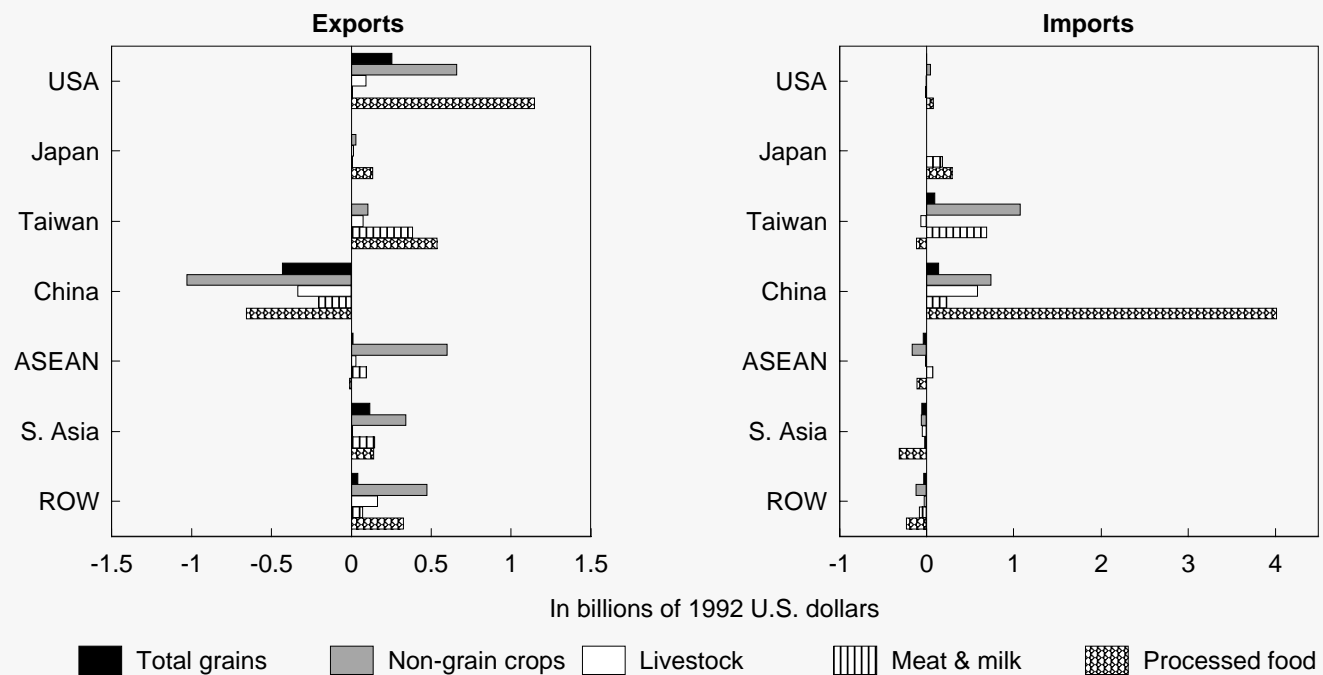
China and Taiwan are negotiating terms of accession to the World Trade Organization (WTO). There is still significant uncertainty about both the timing of accession and the extent of policy reform that will be required. Both economies are undertaking changes to bring their policy regimes into conformity with WTO standards. China is taking steps to reduce tariffs, make its currency convertible, and reform its state-owned enterprises. However, there are still specific disagreements regarding access to China's agriculture, automobile, and services markets. For Taiwan, a number of significant problems remain in agriculture, including rice, chicken, and pork. Taiwan's admission to the WTO will be contingent on China's entry.

Because of uncertainty regarding the timing and terms of accession, the impacts of accession are not accounted for in the baseline projections. ERS has, however, estimated the impacts on the world economy of China's and Taiwan's joining the WTO

versus their continued exclusion from membership.\* The results indicate that WTO accession by China and Taiwan would have a modest impact on the overall world economy, representing a modest acceleration of current trends toward increasing integration with world markets, and the freer play of comparative advantage in world markets. Policy reforms by China in the late 1970s and early 1980s were far more fundamental changes than those assumed in the study's accession scenario. China and Taiwan themselves would be, by far, the biggest gainers from aligning their policies with other WTO members and capturing the benefits of increased access to apparel, textile, and other markets. The key gain to other WTO members may be from the greater predictability of the two Chinese economies playing by internationally accepted trading rules.

\* Zhi Wang, *The Impact of China and Taiwan Joining the World Trade Organization on U.S. and World Agricultural Trade*. ERS, USDA, Technical Bulletin No. 1858, May 1997.

### China and Taiwan WTO accession: Estimated impacts on agricultural trade

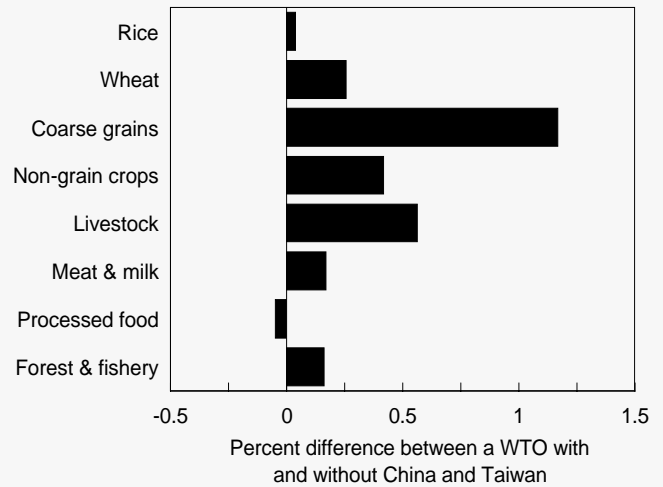


Under the WTO accession scenario, total world agricultural trade would increase 3 percent. The key change would be a \$9 billion increase in China's net agricultural imports, as production factors are bid away from agriculture by an expanding, labor-intensive, light manufacturing sector. Net food and agricultural imports would also increase in Taiwan, Japan, and Korea, as these economies shift resources from agriculture to manufacturing in order to meet China's stepped-up demand for imported capital inputs. On the other hand, labor-intensive manufacturing sectors in South and Southeast Asia will shrink due to increased competition from China, leading to increased production and exports of agricultural products.

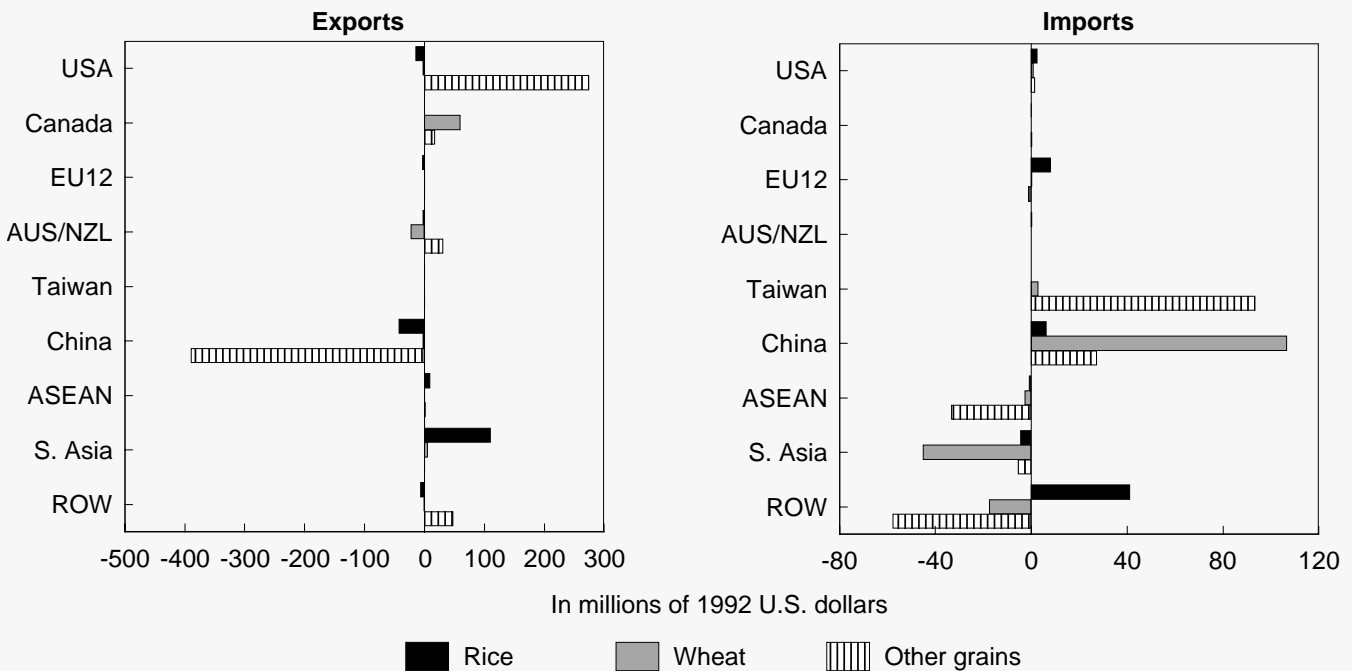
WTO accession would raise world agricultural product prices modestly, led by a 1-percent increase in coarse grains. Changes in world grain trade would parallel changes in total agricultural trade, with increased exports from North America, Southeast Asia, and South Asia and declines from China. Grain imports would increase in Taiwan and China and decline in Southeast Asia and South Asia. U.S. agriculture would benefit modestly from higher exports (\$2.2 billion), and higher farm income and export

prices. In addition to farmers, U.S. consumers, food processing firms and capital- and technology-intensive manufacturers would gain. But U.S. textile and apparel production would decline by about 10 percent.

**China and Taiwan WTO accession: Estimated impacts on world prices**



**China and Taiwan WTO accession: Estimated impacts on world grain trade**



to be sufficient to support the projected future increases in agricultural output and trade flows.

Agricultural policy is assumed to continue to be gradually liberalized, increasing the role of market forces in all aspects of China's agricultural sector. Government planning is assumed to diminish gradually for most crops, with a rising (but less than 100 percent) share of farm gate, wholesale, and retail transactions occurring at market rather than government-set prices. Intermittent state intervention to stabilize markets will likely still occur, but with declining frequency.

China's agricultural trade system is assumed to continue to be slowly reformed. Although central government control over trade in key commodities (food grains and cotton) is not expected to be eliminated, the share handled by private and joint private-public trade companies will likely expand. The baseline assumes China will not become a member of the WTO. China has applied for WTO membership, but negotiations are ongoing and the ultimate provisions and timing of a final agreement are very uncertain.

Production of most major crops is expected to increase as rising domestic prices boost yields by stimulating more use of improved varieties, fertilizer, and better management. Reduced agricultural investment during the 1980s is expected to induce a modest slowdown in the rate of yield growth over the projection period. Total cultivated land continues its current decline under pressure from non-agricultural uses, but the rate of decline is assumed to slow in response to more effective government policies.

Assumptions regarding future meat production and the expansion of commercial feeding remain key to the China projections. The projections incorporate the expectation that capital and infrastructural constraints will affect growth in China's meat production. Reflecting recent trends, however, the projections also incorporate relatively fast growth in commercial feeding of corn and soybean meal. As a result, commercial feeding and imports of corn, soybeans, and soybean meal are projected to show strong growth.

Rapid income growth, and its expected impact on meat, feed, and edible oil demand, is the key factor in China's future agricultural trade patterns. However, there is a great deal of uncertainty in the agricultural trade projections for China. Unanticipated shifts in government agricultural or trade policy would likely

result in significantly altered trade patterns. Likewise, small changes in China's income growth, technical parameters (e.g., feed-meat conversion rate), or supply trend assumptions result in dramatic changes in trade projections for a country with 1.2 billion people.

**East Asia.** South Korea and Japan continue to open their livestock sectors to foreign competition as dictated by the Uruguay Round agreement, using deficiency payments to assist the beef cattle sector and encouraging pork and poultry production with indirect subsidies. Japan will also make maximum use of the pork and beef safeguard mechanisms negotiated in the Uruguay Round, which raise tariffs and levies on those meats on a quarterly basis. South Korea, Japan, and Taiwan are expected to retain bans on beef and pork imports from areas with foot-and-mouth disease. The outbreak of foot-and-mouth disease in Taiwan in March 1997, however, has completely shut down Taiwan's pork exports. It is assumed that Taiwan's exports of pork will not resume until 2003, and that they will recover to only about a third of their average level for 1990-1996 by the end of the baseline.

All three East Asian economies are assumed to maintain tight state control over the trade in rice. Rice production in South Korea will continue to be insufficient to meet domestic needs and maintain adequate stocks, but Korea's aversion to imports is so strong that it is assumed to take the risk of low stock levels through much of the projection period. Japan will continue to meet its minimum access commitment, but will not import above those levels. Rice imports of Japan and South Korea are projected to remain at the final levels set by the Uruguay Round for the years after 2000 and 2004, respectively.

Japan's wheat, barley, and soybean production, and South Korea's barley and soybean production are maintained through border protection and the use of domestic products by processors in response to government mandates or subsidies. The quota for corn for new industrial uses introduced during the Uruguay Round should expand Japan's nonfeed imports of corn.

The projections were made before the financial crisis of 1997 hit East Asia, and assume that the East Asian governments will continue enormous expenditures designed to help domestic agriculture restructure itself. A continued steady outflow of labor from farming will help full-time farmers achieve larger operations and economies of size. Despite the restructuring, produc-



tion of some key commodities will decline in some countries, including rice in South Korea and pork and poultry in Japan. In South Korea, declining rice consumption will mean that production declines may not lead to increased imports, but in Japan, greater pork and poultry imports will be needed to offset the production decline.

**Southeast Asia.** The region's financial crisis is expected to result in continued exchange rate instability and slowed economic growth during 1997-2000. The economic assumptions underlying the projections call for the slowdown to be a temporary phenomenon, with a recovery to near previous rates of economic growth by 2000 (see Asia Crisis box, page 12, for further discussion). With the region's rapidly expanding consumption of farm commodities predicated on rising incomes, urbanization, and population growth, agricultural import demand is expected to slow during 1997-2000. Higher local consumer and producer prices stemming from currency devaluations across the region will also play a key role in slowing imports by reducing consumer demand and raising domestic producer incentives.

With recovery to near previous growth rates by about 2000, demand is expected to resume outpacing production, as it did during the early 1990s. Rice importers in the region are expected to continue to increase their imports as production remains handicapped by slow increases in yields, expanding use of rice land for producing vegetables and fruits, and conversion for urban and industrial development. With their devalued currencies, Thailand and Vietnam are expected to remain very competitive rice exporters.

Although slower income growth and higher local currency prices should slow wheat import growth somewhat in the near term, longer term prospects are for strong import growth as wheat continues to account for a growing share of diets in the region. Recent rapid growth in the region's production and consumption of livestock products, and in consumption and imports of feed grains and proteins, also are expected to slow in response to income and price shocks associated with the current crisis. Because consumer demand for meats is relatively more responsive to changes in incomes and prices than is demand for other food items, derived demand for imports of corn, soybeans, and soymeal may be relatively more affected by the crisis in the near term. In the longer term, however, the expected economic recovery in the region, combined with

limited capacity for efficient production of corn and soybeans, should lead to sustained high growth in meat demand and feed imports.

Agricultural exports from the region, including rice (mostly Thailand and Vietnam), palm oil (Malaysia and Indonesia), and poultry (Thailand) will be more competitive following the devaluation of local currencies.

**South Asia.** India's farm sector is expected to continue to benefit from improving terms of trade as agricultural price incentives are maintained and liberalizing reforms steadily reduce protection in nonfarm sectors. A strong policy emphasis on improving producer price incentives is, however, unlikely during the baseline because relatively fragile coalition governments are likely to give priority to assuring consumer price stability.

Food grain production is expected to receive a boost from reduced protection of oilseeds resulting from the recent shift from state trading to tariffication of vegetable oil imports. India's exports of soymeal are expected to continue to grow, as soybean producer incentives are less affected than other oilseeds by lower internal oil prices and domestic feed demand remains limited. Domestic surpluses of rice continue in the baseline, with India's relatively low-quality rice maintaining a significant global market share. While some wheat exports are projected, any Indian surpluses of relatively low-quality wheat are more likely to be disposed of in the domestic market. With the reform of vegetable oil trade remaining in place, vegetable oil imports will grow rapidly. Price incentives and productivity gains will sustain strong growth in cotton production, with most production consumed domestically to meet domestic and export demand for cotton-based products.

Producer incentives in Pakistan will continue to support gains in cotton area, leading to stagnation of wheat yields due to late planting on double-cropped land. Trade policy permits rising dependence on imported wheat. Cotton yields are expected to recover gradually from current pest-related problems. As with India, most cotton production is processed domestically, with strong growth in exports of cotton-based products. Relatively liberal import policies will likely permit continued growth in vegetable oil imports. Growing livestock product demand is expected to lead to growing soybean meal imports and, possibly, the emergence of feed corn imports during the baseline.

## Africa and the Middle East

**Sub-Saharan Africa.** In Sub-Saharan Africa, per capita food grain consumption is projected to continue to decline because of little or no growth in per capita incomes, strong population growth, slow gains in production, and constrained import capacity. Capacity to import food commercially is expected to rise only slowly, consistent with sluggish gains in total export earnings and slower declines in real food prices. The region is projected to receive a growing share of available global food aid. However, with global food aid budgets assumed to be fixed at current levels, food aid to the region will not be sufficient to maintain per capita consumption.

**North Africa.** Stronger growth in import demand for grains and feeds is projected in most of North Africa, based on the outlook for improved economic growth in most countries, limited production potential and, for some countries, more open trade policies. Political unrest is expected to constrain economic growth in Algeria, but wheat and corn imports are projected to rise as crop production is hampered by high input prices, input shortages, and lack of credit. In Egypt, average annual real GDP growth of 4 to 5 percent, along with recent policy reforms, is projected to generate more growth in wheat, corn, soymeal, and vegetable oil imports. Since joining the WTO in 1995, Egypt has been reducing producer and consumer subsidies in agriculture and has opened up trade to the private sector for some grains, cotton, and other commodities.

Morocco's real GDP growth of about 5 percent annually, coupled with a continuation of recent steps to liberalize trade and phase out grain, oilseed, and sugar subsidies, should also spark stronger growth in import demand. In Tunisia, which began liberalizing its domestic markets and trade in 1992, real GDP growth of 5 to 6 percent a year is expected to generate expanding imports of wheat, rice, soybean oil, and livestock products.

**Middle East.** Many Middle Eastern economies are also projected to experience stronger economic growth during 1998-2007, in part due to the outlook for stronger petroleum prices. Prospects for Iran are highly dependent on both oil prices and the implementation of structural reform. Moderate economic growth, together with limited success in improving yields, and an ambitious livestock/dairy development

program, lead to the projected growth in wheat, rice, corn, and barley imports. The situation in Iraq, both economic and political, is extremely uncertain. Under the assumption of 3 to 4 percent annual real GDP growth and the continued recovery in petroleum export revenues, food consumption is projected to recover gradually from the sharp drop following the 1991 Persian Gulf War, driving moderate growth in imports of food and feed grains. If, however, Iraq's imports remain constrained by the terms of the current UN Security Council Resolution, imports would be significantly lower (see box, page 29).

The Saudi Arabian economy is also expected to benefit from stronger oil prices. Saudi grain output is expected to continue to decline due to cuts in government subsidies and continuing concern about the depletion of water resources. Rising imports of rice and wheat are projected, and ambitious plans to expand the livestock and poultry sectors will also boost feed imports. Turkey's agricultural trade outlook will be shaped by its expanding and urbanizing population, large external debt, and lack of commitment to privatization and restructuring in the farm sector. Steady growth in rice imports is likely, and reduced producer subsidies will likely raise wheat imports. Continued strong expansion of the poultry sector and livestock development is expected to result in increased imports of feed grains and oil meals.

## Western Hemisphere

**Canada.** A major factor affecting baseline production projections for Canadian crops is the shift over the past several years into the production of canola. Encouraged by development of new varieties, canola acreage rose from a range of 2.5 to 3.7 million hectares during 1984-92, to a range of 5.3 to 5.75 million hectares during 1994-95. Canola plantings significantly affect area and production of other crops, particularly wheat and barley. Wheat acreage, for example, has been below 12.3 million hectares every year since 1993 after remaining well above 13 million hectares over the 1984-92 period. Rotational constraints on canola plantings are, however, assumed to limit canola acreage.

Canada's 1996/97 budget projected a reduction in annual domestic support programs for agriculture from C\$854 million to C\$600 million over 3 years. In redesigning agricultural support programs to meet the new budget restrictions, emphasis is being placed on

## Iraq: Baseline assumptions and alternate projections

Before the 1991 Gulf War, Iraq was among the largest and fastest growing Middle Eastern importers of agricultural commodities, including wheat, feed grains, and rice. This trade was virtually halted by the economic sanctions imposed on Iraq due to the war. The future path of Iraq's agricultural trade remains uncertain, and the impact of alternate assumptions on the trade projections is significant, both for Iraq and for the region as a whole.

Prior to the Gulf War, per capita consumption of many food items in Iraq was among the highest in the Middle East region. High consumption was driven by the relative prosperity of Iraqi consumers, and by the ability to import large quantities of food afforded by petroleum export earnings. At that time, annual food imports were \$2.5-\$3 billion and met approximately two-thirds of Iraq's food requirements. The imposition of UN sanctions, however, sharply curtailed the country's import capacity by restricting its ability to export oil and earn foreign exchange. Food imports plunged, and the ensuing food shortages became increasingly severe as the sanctions were maintained.

In 1996, the UN and Iraq arrived at an agreement, under Security Council Resolution (SCR) 986, permitting Iraq to export \$2 billion worth of oil every 6 months. It was further agreed that 40 percent of these export earnings, approximately \$1.6 billion annually, would be used for imports of food and agricultural inputs. The remaining 60 percent was to be

spent on other essential imports identified in the agreement and compensation for war damages.

The current USDA baseline projections assume that Iraq's food imports will not remain bound by the terms of SCR 986 throughout the 1998-2007 projection period. Rather, the projections are based on the assumption that Iraq will be gradually reintegrated into the world economy over the projection period, involving either a removal or relaxation of the current sanctions. With this policy assumption, Iraq's economy is projected to recover, with real GDP assumed to grow 4-5 percent annually, implying 1-2 percent annual growth in real per capita incomes. Recovering consumer demand and rising oil exports lead to significant growth in imports of wheat, feed grains, rice, poultry, vegetable oils, sugar, and other commodities.

It is possible, however, that continued noncompliance with U.N. resolutions could result in Iraq's imports of food and farm inputs continuing to be constrained at or near the SCR 986 annual limit of \$1.6 billion. In this event, Iraq's total food imports in 2007 would be about \$1.0 billion below the \$2.3 billion level implied by the current USDA projection. In volume terms, this translates into import reductions for 2007 of about 1.9 million tons of wheat and 0.3-0.4 million tons each for coarse grain and rice.

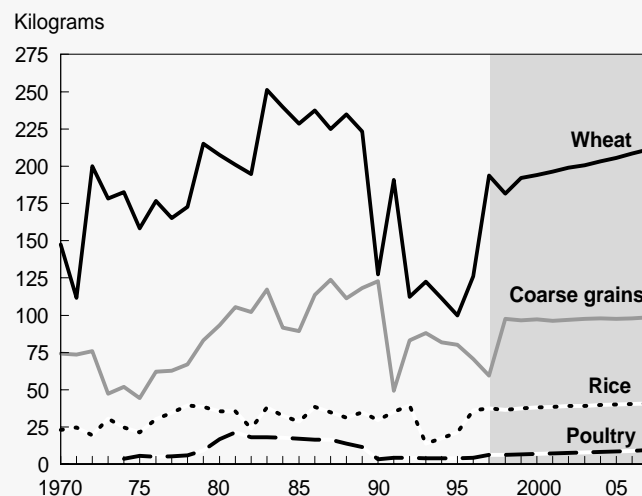
Iraq: Imports under alternate scenarios

Commodity	1989-91 avg.	1995-97 avg.	2007 projected		
			Baseline	SCR 986	Difference
			1,000 tons		
Corn	342	67	448	210	-238
Barley	238	1	371	259	-112
Wheat	1,959	1,570	4,270	2,406	-1,864
Rice	402	479	850	496	-353
Poultry	0	9	92	27	-65
Vegetable oil	31	3/ 114	350	207	-143
Sugar	2/ 418	3/ 230	699	432	-267

1/ Food imports limited to approximately \$1.3 billion, with the remainder of the \$1.6 billion for food and farm inputs under SCR 986 allocated to farm inputs. Quantities calculated based on estimated 1996-97 commodity import shares, baseline price projections, and estimated transport and handling costs.

2/ FAO estimates.  
3/ FAO estimates, 1995-96 avg.

Iraq: Baseline per capita consumption projections



providing whole-farm insurance (such as the recently developed whole-farm savings plan program—the Net Income Stabilization Account), rather than crop-specific and production-distorting subsidies. The baseline assumes that government subsidies to crop and revenue insurance programs will be “production neutral” and that Canadian grains and oilseed production will fully respond to market forces.

Canada’s 1995/96 budget eliminated the C\$561 million Western Grain Transportation Act (WGTA) freight subsidy for prairie grains and oilseeds, effective August 1, 1995. The elimination of the WGTA freight subsidy meets Canada’s commitment under the Uruguay Round export subsidy reduction requirements. Elimination of the subsidy means that the cost of transportation of prairie province crops (such as wheat, barley, and canola) to export positions has increased, estimated at about C\$17 per metric ton at the time of the subsidy elimination. This increase in transportation costs reduces farmers’ incentives to plant grains and oilseeds and reduces production. At the same time, prairie processing and livestock sectors benefit from reductions in local prices. The WGTA subsidy removal has reinforced recent trends toward more value-added processing in the Canadian prairie region. Substantial increases in livestock feeding and canola crushing are projected to continue in the baseline.

Increases in Canada’s wheat exports to the United States over the 1990-94 period led to the negotiation of a bilateral agreement to govern wheat trade with a tariff-rate quota for 1 year, from September 12, 1994 to September 11, 1995. The agreement also established a joint commission to study all aspects of U.S. and Canadian grain marketing systems. With expiration of the TRQ in September of 1995, USTR and USDA announced that the United States now plans to “monitor” imports of Canadian wheat using the expired TRQ as a benchmark for comparison, and to ask for consultations with the Canadian government if there is a surge in imports. The baseline assumes that these provisions will prove sufficient and that no new restrictions on U.S. grain imports from Canada will be imposed.

Several commodities grown in Canada have unique characteristics that are likely to guarantee certain export markets for the future. Canadian canola is preferred by Japanese importers. Canadian oats are an indispensable import for U.S. processors. Canadian and Australian barley malt are positioned to benefit from

increasing demand from importers in China and Latin America. Because of these market niches, projections for Canadian production of these three commodities is favored in the later years of the baseline.

**Mexico.** The Mexican economy continues to recover from the economic crisis of 1995, triggered by the December 1994 peso devaluation, and has bounced back relatively quickly. Annual real GDP growth will be near 6 percent in 1997 and is expected to average near 5 percent through 2007. Fundamentally, the long-term outlook for Mexican agriculture remains unchanged with its productive capacity limited by scarce water and land, and low levels of technology. Mexico is projected as a progressively larger importer of grains, oilseed products, and meats over the next decade. Growing demand for meats will spur domestic meat production and demand for imported feed ingredients. Trade liberalization also will provide opportunities for greater imports of meats, almost entirely from the United States.

Agricultural policy continues to be driven by the *Alianza para el Campo*, of which the PROCAMPO program is a major component, and by NAFTA. Under PROCAMPO, the government continues to reduce its role in supporting grain prices. With lower import duties on corn, sorghum, and wheat, there will be more price transmission between the world and the Mexican domestic grain markets. PROCAMPO direct payments, which require planting but are otherwise decoupled, will continue to be phased out. Under NAFTA, all tariffs on baseline commodities will be eliminated by 2008. Because of the price-competitiveness and quality of U.S. corn, pork, poultry, and eggs, particularly to the border areas, it is assumed that Mexico will import at least the tariff-rate quota quantities. Mexico continues to reduce consumer subsidies, and the main subsidies that continue will be those on tortillas and milk. Feed compounders will now procure corn directly from farmers, thus eliminating CONASUPO subsidies for animal feed.

**South America.** Strong overall economic growth is expected in South America, led by the two largest economies in the region, Argentina and Brazil. Many countries in the region continue to benefit from their successful evolution from semi-authoritarian political systems and managed economies to political pluralism and market-oriented economies.

For Argentina, the key assumptions are on the supply side and involve the availability of land for crop production and the level of yields obtainable. In 1996, Argentine producers harvested almost 22 million hectares of grains, oilseeds, and cotton. This was almost 3 million hectares above the previous year's total, which itself had been an all-time high. The baseline assumes that cropped area can continue to expand when market conditions provide adequate incentives. Crop yield response in recent years has also indicated stronger response to prices than in the past, with the use of inputs increasing sharply. Consequently, the baseline assumes faster growth in use of fertilizer and other inputs than has been the case historically. Finally, Argentina has begun the process of attaining foot-and-mouth-free status. It is assumed that market access in foot-and-mouth free areas, and foreign consumer acceptance of Argentine beef, will increase gradually during the baseline.

In Brazil, the economic stabilization program begun in mid 1994 continues to hold down inflation. Controlling inflation through tight monetary and fiscal policy remains the primary goal of the government, along with attempts to manage a gradual devaluation in the real exchange rate in an effort to get the growing trade deficit under control. Recent government efforts to reign in the trade deficit include restrictions on the use of short-term import financing while simultaneously increasing the availability of credit for exports. With policies such as these and a continued gradual real depreciation of the exchange rate, Brazilian producers should continue to face stronger price incentives in local currency terms, thus encouraging growth in Brazilian exports. In the case of soybeans, expansion will be accommodated by a continued northward and westward movement of Brazil's agricultural frontier, aided by low land costs and improvements in infrastructure that have reduced the transportation costs of soybeans destined for export.

## Transition Economies

**Former Soviet Union.** Between 1997 and 2000, real GDP growth for the countries of the FSU is assumed to be very sluggish, with currencies appreciating slightly in real terms. After 2000, real GDP growth across the region is assumed to be 3 to 4 percent per year, with the exchange value of the region's currencies remaining roughly constant in real terms. The projections assume that liberalization of the markets and restructuring of agricultural enterprises of the FSU

will continue at their current slow pace. Commodity-specific trade policies remain mostly unchanged, with tariffs remaining at relatively low levels, and no quotas imposed. Price transmission between world and domestic markets for major commodities is assumed to be about 50 percent, meaning that a 1-percent change in the world price will result in about a 0.5-percent change in the domestic price.

The primary policy uncertainty in the outlook concerns the possibility of more protectionist trade measures for agricultural commodities. Higher tariffs and/or tariff-rate quotas may be announced in Russia for livestock products. Significantly higher tariffs, or imposition of quotas, could drastically change the meat import projections. Some increase in tariffs is anticipated, but more drastic changes that could affect meat imports are assumed to be avoided, in part because of some limited foreign direct investment in the Russian livestock industry.

Crop productivity gains in the FSU are expected to be small. Progress in land reform that could lead to more significant productivity gains is not anticipated. FSU livestock production is assumed to recover very slowly, at least until the process of economic reform reduces production costs and increases the competitiveness of the sector. The current high cost of meat production in the FSU suggests that livestock inventory declines of recent years will not be fully recouped in the foreseeable future and some meat demand will continue to be satisfied by imports. It is also anticipated that state grain imports will be minimal in the baseline because slow growth in livestock production will limit feed demand. The Central Asian countries of the FSU are expected to meet their grain needs primarily from Kazakhstan and Ukraine, rather than by importing from abroad.

**Central and Eastern Europe.** The economic outlook for the region calls for continued positive income growth and falling inflation. As the economic transition proceeds, it is assumed that most of the rigidities inherited from the Communist period will be removed, leading to fuller transmission of world market prices to internal markets. The projections are based on the assumption that most world agricultural commodity prices will be fully transmitted to domestic markets and that import tariffs in most cases will not exceed 30 percent. In the short term, the impact of protectionist policies in the Visegrad countries (Poland, Hungary, the Czech Republic, and Slovakia) has mainly been to

keep domestic producer prices at world levels. These measures have tended to counter the downward pressures on prices coming from the lingering bottlenecks in the downstream sectors. As a result, it is assumed that domestic producer prices will not differ greatly from world market prices. Pressure to keep state budgets in balance is expected to remain the principal constraint on agricultural policy. Of the Visegrad Four countries, only Hungary seeks to be a major grain exporter. Others aim for self-sufficiency.

The projections also incorporate the assumption of a steady increase in efficiency in the agricultural sector, reflected in moderate gains in crop yields and greater feeding efficiency in the livestock sector. These productivity increases are expected to come about as a result of continuing progress toward market reform in

all the CEEs. Rising incomes and lower interest rates will bring badly needed investment to both agriculture and food processing. There will likely be some consolidation of the small fragmented farms that currently dominate much of the landscape. It is anticipated that land tenure will become more permanent, bottlenecks in issuing titles will be resolved, and true land markets will develop as capital markets improve.

The baseline assumes that none of the CEE countries will join the EU during the projection period. Although some CEE countries may join the EU by 2007, the timing and terms of accession are uncertain. When CEE countries do accede to the EU, significant changes in domestic and trade policies from those assumed here are likely.

# Wheat

World wheat production is expected to increase by an average of almost 10 million tons per year between 1998 and 2007. Above-trend yields in China, the United States, Former Soviet Union (FSU), and Eastern Europe produced a dramatic record global yield in 1997, and a return to trend means lower yields for several years in these key wheat-producing countries. World area is projected to expand gradually after 1998, as wheat prices strengthen relative to most other crops. However, world area will not exceed the 1997 level until 2001 and, at the end of the baseline, will remain 6 million hectares below the 1981 record. Land availability is constrained in most countries by climate and increased urbanization. Wheat area declined in the 1980s and 1990s in the FSU and Eastern Europe, as unprofitable area went out of production when the role of centralized planning was reduced. Much of that area is expected to remain out of production through the baseline.

Foreign consumption growth for wheat is projected to average almost 10 million tons per year between 1997 and 2007, twice the rate posted during the previous 10 years. Food demand is expected to account for most foreign consumption growth, but feed and industrial use also will expand slowly. Wheat feed use will fall in many regions as wheat prices rise relative to feed grains, but wheat feeding will increase in the FSU and the EU. In the FSU, increased livestock production will boost wheat feeding, while in the EU, wheat that fails to meet milling standards will not be eligible for

price supports and will move into feed channels. Per capita food use of wheat is projected to rise in regions with modest but growing incomes.

World wheat trade (including the wheat equivalent of wheat flour) is projected to grow an average of more than 3 million tons annually during 1997-2007. Projected growth is well above that of the 1980s, but less than during the 1970s. Wheat trade is projected to rebound from the unusually low levels in 1997 due to increased imports by China, and then return to trend growth, with some acceleration toward the end of the baseline.

Projected world import growth is broad-based among the lower- and middle-income countries that are expected to show relatively strong economic growth over the next 10 years, including much of Asia, Latin America, North Africa, and the Middle East. Gains in incomes and urbanization will continue to shift consumer preferences away from rice, coarse grains (for food use), and tubers, and toward wheat-based foods and meat. Per capita wheat consumption is expected to continue to increase relative to rice in China and Southeast Asia. In North Africa, rising incomes and market-oriented farm reforms, including privatization of trade, are expected to boost imports.

China's wheat imports are projected to rebound from a 1997 low of 2 million tons, as yields return to trend

Figure 3  
**Wheat: Historical and projected world area and yield**

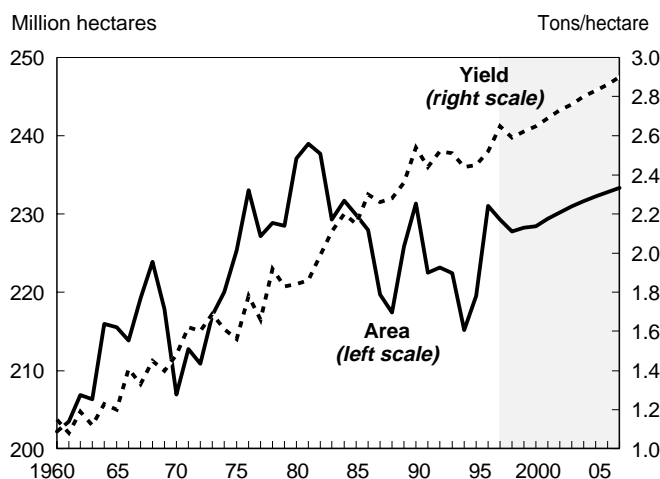


Figure 4  
**Wheat: Historical and projected world supply and use**

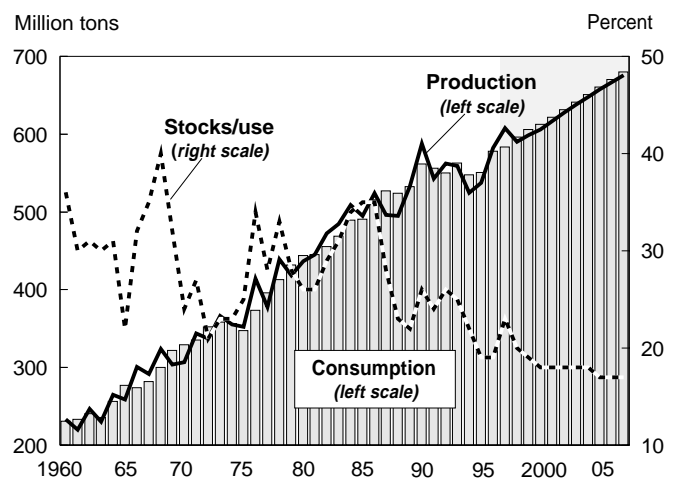
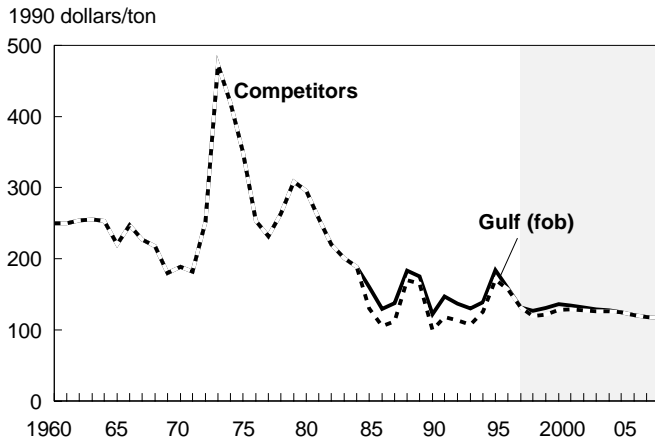


Figure 5

**Wheat: Historical and projected real prices**



Gulf (fob)=average U.S. gulf fob price  
 Competitors=estimated average competitors price

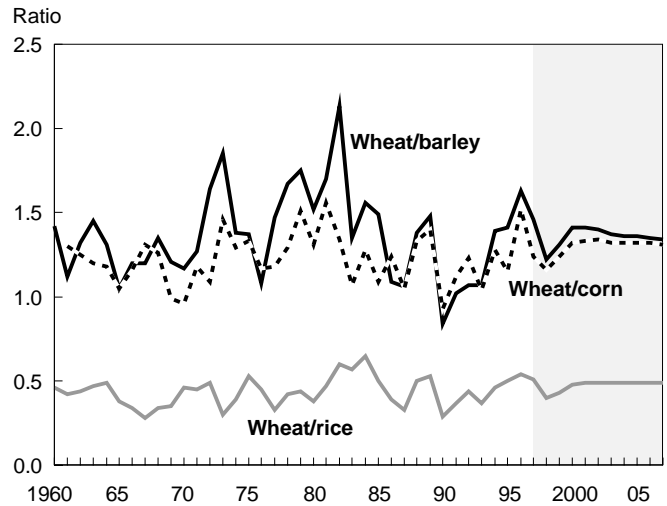
and limited area reduces production, and then to increase gradually through the baseline as demand outstrips production. China is a key source of uncertainty in global wheat import prospects because of the uncertain impacts of potential water constraints, yield improvements, dietary shifts toward meats, and policies toward grain imports.

In the past, many importers benefited from exporter subsidies, credit, or food aid. Under the Uruguay Round agreement, subsidized exports will fall from about 40 percent of world trade in 1994 to about 25 percent by 2000. However, budgeted EEP funds are assumed to be spent starting in 1998/99, so targeted countries will receive larger exporter subsidies than in recent years. Some countries will be affected by the outlook for no increase in the nominal value of credit and food aid. Wheat imports by the least developed countries, particularly the Sub-Saharan Africa region, are likely to decline relative to imports by the higher income developing countries.

U.S. wheat exports are projected to grow fairly rapidly in the early years of the baseline, but flatten when prices get high enough for the EU to export without subsidy in 2000/01. U.S. export growth will recover late in the baseline, reaching 42.2 million tons in 2007, still lower than in 1981 and 1987. The U.S. share of world trade will increase until 2000 and then decline slowly to less than one-third. In the early years of the baseline, U.S. exports will benefit from rebounding U.S. production, the use of EEP, and Uruguay Round limits on EU wheat exports. As time progresses, however, slow U.S. yield growth and large acreage in

Figure 6

**Wheat: Historical and projected price ratios**



the CRP will limit the U.S. ability to expand production relative to competitors.

Compared with the 1980s and early 1990s, the EU is a less significant competitor in world wheat trade, particularly during 1998-2000, because of internal policy reforms and Uruguay Round constraints on subsidized exports. After 2000, although the EU is expected to be able to consistently export some wheat without subsidy, the EU land set aside is expected to remain at about 10 percent in order to avoid building excess grain stocks.

Initially, land constraints and competitive prices for other crops are expected to limit wheat exports by Argentina, Australia, and Canada. But later, Argentina and Australia are projected to find it increasingly profitable to increase wheat production and exports. Canada's exports will stay relatively flat, largely because of expected slow yield growth. In the early years of the baseline, Canada will maintain wheat exports by reducing stocks, but then wheat area will increase in response to strengthening prices. Minor exporters, like Eastern Europe, will become more important in the latter part of the baseline.

**Highlights for Major Importers**

Higher incomes and population growth is expected to fuel strong demand for wheat in most regions. Gains in incomes and urbanization will continue to shift consumer preferences away from coarse grains (for food use), rice, and tubers, and toward wheat-based



Table 6--Wheat trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
1,000 tons														
<b>Exporters</b>														
United States	32,340	33,778	27,254	29,257	30,657	35,393	36,733	37,415	37,414	38,111	39,453	40,138	40,815	42,178
Argentina	7,300	4,457	10,500	9,400	7,914	7,881	8,333	8,812	9,341	9,828	10,226	10,631	11,049	11,441
Australia	6,343	13,300	18,710	14,000	13,088	14,293	14,584	14,956	15,331	15,576	15,790	15,991	16,257	16,405
Canada	20,850	16,341	19,500	19,000	18,923	17,961	17,961	18,062	18,109	18,145	18,162	18,222	18,222	18,246
Central/East Europe	2,606	4,900	654	2,900	2,765	2,554	2,780	2,781	3,262	3,599	4,014	4,507	4,580	4,846
Czech Republic	515	356	50	100	255	242	287	322	389	468	528	607	622	745
Slovakia	200	201	50	50	125	0	0	20	51	81	105	155	159	204
Hungary	1,286	1,599	400	1,200	1,121	1,125	1,404	1,485	1,678	1,756	1,867	1,937	1,943	1,955
Poland	5	136	150	200	123	0	0	0	0	0	67	178	256	348
Other Central/East Europe	600	2,608	4	1,350	1,141	1,187	1,089	954	1,144	1,294	1,447	1,580	1,600	1,594
European Union-15 1/	16,800	15,354	19,650	15,000	16,701	17,830	16,688	17,811	18,903	19,833	21,007	21,880	23,200	24,268
Former Soviet Union 2/	3,922	5,764	3,450	5,000	4,534	5,648	5,914	6,066	6,431	6,666	6,860	7,137	7,392	7,662
Russia	395	177	600	1,250	606	500	500	550	600	650	700	750	800	850
Ukraine	27	1,100	500	400	507	1,648	1,714	1,716	1,831	1,916	1,960	2,087	2,192	2,412
Other Former Soviet Union	3,500	4,487	2,350	3,350	3,422	3,500	3,700	3,800	4,000	4,100	4,200	4,300	4,400	4,400
India	75	595	1,612	0	571	0	522	614	774	803	841	909	906	752
Other N. Africa & M. East	6	358	500	400	316	0	0	0	0	0	0	0	0	0
Saudi Arabia	1,651	181	0	0	458	2	1	0	0	0	0	0	0	0
Turkey	1,761	963	1,000	1,000	1,181	1,000	1,000	1,016	1,036	1,057	1,078	1,100	1,122	1,144
Other	1,285	1,569	150	1,900	1,226	908	912	916	920	923	926	928	930	932
Total	94,939	97,560	102,980	97,857	98,334	103,446	105,428	108,449	111,521	114,541	118,357	121,448	124,473	127,874
<b>Importers</b>														
United States	2,502	1,849	2,513	2,449	2,328	3,130	3,266	3,266	3,130	3,130	2,994	2,994	2,994	2,994
Algeria	5,653	3,401	3,600	4,800	4,364	4,129	4,209	4,295	4,390	4,488	4,672	4,807	4,939	5,068
Brazil	6,545	5,470	5,178	5,700	5,723	6,250	6,318	6,423	6,488	6,488	6,601	6,667	6,777	6,856
C. America & Caribbean	2,880	2,368	2,677	2,795	2,680	2,849	2,846	2,862	2,877	2,897	2,916	2,935	2,954	2,969
China	10,241	12,522	2,800	2,000	6,891	5,689	6,184	6,816	7,376	7,880	8,844	9,561	10,282	11,248
Central/East Europe	1,928	1,563	3,579	1,300	2,093	1,756	1,343	1,029	910	826	795	791	789	788
Czech Republic	5	5	150	0	40	0	0	0	0	0	0	0	0	0
Slovakia	2	5	250	100	89	42	2	0	0	0	0	0	0	0
Hungary	7	435	15	0	114	0	0	0	0	0	0	0	0	0
Poland	990	553	1,714	400	914	712	541	423	309	228	200	200	200	200
Other Central/East Europe	924	565	1,450	800	935	1,002	800	606	601	598	595	591	589	588
Egypt	5,856	5,919	7,000	7,200	6,494	7,287	7,448	7,531	7,737	7,955	8,198	8,393	8,589	8,786
European Union-15 1/	2,082	5,225	4,495	2,900	3,676	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Former Soviet Union 2/	7,674	9,448	6,275	6,020	7,354	6,293	6,097	6,963	7,740	8,035	8,391	8,433	8,442	8,107
Russia	1,879	4,991	1,980	2,000	2,713	2,015	1,818	2,044	2,235	2,442	2,713	2,784	2,845	2,843
Ukraine	274	200	200	50	181	200	200	200	200	200	200	200	200	250
Other Former Soviet Union	5,521	4,257	4,095	3,970	4,461	4,078	4,079	4,719	5,305	5,393	5,478	5,449	5,397	5,214
India	30	50	1,161	1,500	685	100	100	100	100	100	100	100	100	100
Indonesia	3,800	3,600	4,195	4,500	4,024	4,967	5,323	5,648	5,899	6,173	6,555	6,900	7,258	7,679
Iran	3,200	2,750	6,849	5,000	4,450	5,128	5,331	5,534	5,709	5,894	6,147	6,335	6,488	6,692
Japan	6,310	6,101	6,264	6,200	6,219	6,171	6,172	6,168	6,163	6,155	6,145	6,132	6,117	6,098
Malaysia	1,157	1,065	1,139	1,200	1,140	1,203	1,254	1,310	1,369	1,430	1,494	1,560	1,627	1,696
Mexico	1,374	1,581	1,936	1,500	1,893	1,709	1,818	1,999	2,083	2,161	2,239	2,316	2,397	2,481
Morocco	1,221	2,431	1,520	2,400	1,893	2,940	3,098	3,172	3,250	3,346	3,443	3,515	3,564	3,612
Other N. Africa & M. East	7,131	6,535	8,000	9,310	7,744	9,276	9,689	10,037	10,416	10,792	11,164	11,553	11,898	12,371
Pakistan	2,123	1,903	3,012	4,000	2,760	3,681	3,834	4,068	4,496	4,496	4,839	5,139	5,423	5,754
Philippines	2,051	1,964	2,156	2,100	2,068	2,470	2,555	2,555	2,742	2,865	3,009	3,162	3,300	3,483
Saudi Arabia	29	43	200	300	143	598	667	719	793	876	932	1,003	1,064	1,127
South Africa	900	900	700	800	800	662	672	674	682	695	708	716	728	739
South Korea	4,293	2,554	3,465	3,800	3,528	3,000	2,814	2,759	2,712	2,679	2,659	2,644	2,636	2,633
Sub-Saharan Africa	4,600	3,975	4,742	4,450	4,442	4,371	4,343	4,256	4,201	4,268	4,262	4,242	4,225	4,363
Taiwan	895	1,092	1,016	1,100	1,026	1,119	1,129	1,139	1,149	1,159	1,169	1,179	1,188	1,197
Thailand	686	785	664	800	734	892	833	860	892	926	963	1,002	1,045	1,090
Tunisia	1,511	938	900	1,400	1,187	1,072	1,071	1,077	1,094	1,114	1,137	1,158	1,176	1,193
Turkey	444	2,080	2,326	1,500	1,588	1,352	1,481	1,648	1,697	1,818	1,922	2,017	2,118	2,225
Other	9,994	8,988	9,357	10,315	9,664	12,434	12,533	12,648	12,973	13,137	13,137	13,271	13,436	13,609
Total	97,110	97,100	97,719	97,239	97,292	103,446	105,428	108,449	111,521	114,541	118,357	121,448	124,473	127,874
Exports-Imports	-2,171	460	5,261	618	1,042	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

foods. China remains the largest source of uncertainty regarding wheat import prospects.

**China.** For the entire baseline, China's wheat imports are projected to remain below the 12.5 million tons imported in 1995, but grow from a low of 2 million forecast for 1997/98, reaching 11 million by 2007. Consumption, driven mostly by increased population, is expected to grow faster than production because declining area partly offsets rapidly increasing yields. From 1998 to 2007, China's wheat production is projected to increase only 7 million tons compared with the exceptional 39-million-ton increase from 1988 to 1997. It is expected that China's future wheat imports will be based more on economic factors than on self-sufficiency goals.

The projections of China's future trade create, perhaps, the greatest amount of uncertainty in the wheat trade outlook. During the 1990s, China's wheat imports have ranged from 2 million tons to over 15 million. There is considerable uncertainty regarding such factors as water constraints and future yield improvements, foreign exchange earnings, the pace of dietary shifts toward meats, and the pace of market liberalization. The baseline projections represent what is considered the most likely path of future trade, but the recent history suggests that a wide range of trade outcomes is plausible.

**Former Soviet Union.** The FSU is expected to be a small net importer of wheat during the next 10 years. Demand for grain will be low compared with the 1980s and early 1990s because of low livestock inventories and sluggish economic growth. After 2000, economic growth is expected to accelerate and boost demand, but yield growth is also expected to pick up, resulting in little trade growth.

**Southeast Asia.** In the baseline scenario (developed in the fall of 1997), wheat imports by Southeast Asia (*Indonesia, Malaysia, the Philippines, and Thailand*) show strong growth as rising incomes and urbanization boost food demand and lead to dietary shifts away from rice, tubers, and coarse grains (for food use). These trends will likely be slowed in the near term by changes in macroeconomic prospects (see the Asia Crisis box page 12)), but the effects on wheat will be less than those for most other commodities.

**Latin America.** Most countries in Latin America are wheat importers, because limited crop area has a

climate well suited to wheat production. Per capita wheat consumption is expected to increase modestly, except in the Central America/Caribbean region. Steady consumption growth gradually boosts imports. *Brazil* is expected to remain one of the world's largest wheat importers. Despite yield-driven gains in production, Brazil's wheat imports are projected to grow by just over 1 percent per year over the baseline.

**North Africa and the Middle East.** Prospects for increased wheat production in North Africa and the Middle East are limited by the shortage of cropland. Strong population growth is boosting consumption and, while per capita food consumption may decline in *Iran*, it is expected to increase slowly in most of the rest of the region, including *Iraq*. Wheat imports by the region are projected to grow from about 30 million tons in 1998 to more than 40 million by 2007. *Egypt* and *Iran* remain among the world's largest importers, and by 2007 *Algeria* is expected to import more than 5 million tons. By 2007, the region is likely to account for almost a third of world wheat imports, with the growth in regional demand helping to underpin projected gains in world trade.

### Highlights for Major Foreign Exporters

Compared with the 1980s and early 1990s, the EU is expected to be a smaller wheat exporter until 2002, because of internal policy reforms and the Uruguay Round agreement. U.S. exports capture about a third of world trade for the entire baseline period, because land constraints and the profitability of alternative crops limit competing exporters' production.

**European Union.** EU policy changes implemented as part of the 1992/93 CAP reform, and the Uruguay Round commitments to reduce subsidized exports will limit EU wheat exports until world prices reach intervention levels. In the baseline, the EU is projected to be able to consistently export wheat without subsidy by 2000/01. However, the timing of unsubsidized EU exports is a major uncertainty in the projections that will have a significant impact on U.S. wheat exports. Recent history has shown that seasonal or annual variations in market conditions may result in periods of relatively high world prices and unsubsidized exports prior to 2000, as well as periods of tight EU supplies that lead to export taxes on wheat. Potential changes in EU intervention or set-aside policies also contribute uncertainty to the projections.

## Details of EU Wheat Export Projections

The EU is projected to begin exporting some wheat without the aid of export subsidies by about 2000/01. Unsubsidized EU wheat exports are expected to occur as projected real world prices and internal EU market prices converge, allowing the EU to export beyond the limits set for subsidized exports during the Uruguay Round. In the early years of the projections, EU market prices of wheat are expected to remain above world prices, with EU wheat exports projected at or below the UR limits. By 2000/01, firm world prices and declining internal prices are expected to permit the EU to export wheat without subsidy, with exports exceeding the UR limits by about 45 percent, or 7.6 million tons by 2007.

It is important to note that the projections do not account for annual or seasonal variability in market conditions that, as has occurred in the last 3 years, may result in periods of relatively high world prices and unsubsidized wheat exports prior to 2000, as well as periods of tight EU supplies that lead to export taxes on wheat.

Several key factors and assumptions affect the projections. First, with the assumption that no significant reforms will be made to the Common Agricultural Policy (CAP), the EU is expected to

maintain a 5-percent land set-aside through 1999/2000, then increase to 10 percent for the duration of the projection period. A lower set-aside rate could allow the EU to produce and export more wheat. However, because the set-aside is not crop specific, a smaller set-aside would also likely lead to excess supplies of coarse grains, primarily barley, that would exceed the EU's UR limits on coarse grain exports and that could not be exported without subsidy. Revision of the CAP to alter the set-aside mechanism or to reduce internal coarse grain prices closer to world prices would appear to be needed to push EU wheat exports significantly higher than the current projections.

Finally, the projections incorporate the assumption that the European Currency Unit (ECU) will strengthen relative to the dollar during 1998-2007, reflecting tighter fiscal and monetary policies in EU member states as they prepare for the European Monetary Union. A strong ECU means that EU farmers will face prices that decline more (or increase less) than prices denominated in U.S. dollars. The strengthening ECU tends to reduce producer and export incentives, particularly toward the end of the projection period.

Baseline EU wheat production is high enough that the EU is able to export up to its Uruguay Round limit in the first years of the baseline. In response to high production, the EU is assumed to raise the land set-aside rate from 5 percent during 1997-1999 to 10 percent in 2000/01 and maintain that level for the remainder of the projection period. The world market price for wheat is projected to strengthen and match the EU market price by 2000/01, allowing the EU to export wheat without subsidy in that year and thereafter. The EU is assumed to retain the 10-percent set-aside option in the later years because barley exports will remain constrained by the Uruguay Round subsidized export limits, and a lower set-aside would likely generate large barley surpluses.

EU wheat export supplies are also expected to be affected by expanding internal demand for feed wheat. Grain feed demand is projected to remain relatively

strong because of rising production of pork and poultry. Demand for these meats, whose production is more feed-intensive than beef, is expected to remain stronger than for beef, both due to the effects of the BSE scare on domestic demand, and due to rising, unsubsidized exports of pork and poultry.

**Canada.** Wheat area and production are expected to remain steady, at a level slightly higher than the 1993-97 average. Projected exports range from 17.9-18.4 million tons. Canola plantings significantly affect area and production of other crops, particularly wheat. For the near term, strength in grain prices will encourage substitution back out of canola. In later years, the projections assume that rotational constraints on canola plantings will limit canola acreage to a maximum of approximately 5.8 million hectares.

## Food Aid Assumptions and Sub-Saharan Africa Grain Import Projections

The long-term outlook for Sub-Saharan Africa's food grain imports is closely linked to the assumptions on global availability of grain food aid, and prospects for the region's chronically limited capacity to import food commercially. Baseline assumptions for the United States and other donors indicate a gradual decline in the global availability of grain food aid (see table). For Sub-Saharan Africa, however, this decline is expected to be offset by an increasing share of global aid allocated to the region as needs decline in the transition economies of the CEE and FSU. If historical patterns hold, wheat will account for about 66 percent of grain food aid available to the region, corn 22 percent, and rice 12 percent.

The macroeconomic assumptions for Sub-Saharan Africa suggest little improvement in the rate of income growth or inflows of investment or export earnings. With the baseline indicating a slower decline in real food grain prices than in the past, and assuming that the share of available foreign exchange that countries in the region spend on commercial

food grain imports remains near present levels, growth in commercial imports will be limited.

These food aid and commercial import assumptions, combined with the modest projected growth in food grain production, result in a gradual decline in the already-low average level of per capita food grain consumption in Sub-Saharan Africa. For the region as a whole, per capita food grain consumption is projected to fall from an average of about 128 kgs in 1994-96 to about 121 kgs by 2007. This indicates further deterioration of the nutritional status in at least some parts of the region. Alternate assumptions that increase the availability of food aid for Sub-Saharan Africa, or the share of commercial import capacity allocated to food grains, would increase projected imports and consumption. A larger food aid allocation would come at the cost of donor budgets or other aid recipients. Allocation of a larger share of commercial import capacity to food grains could reduce imports of investment goods and tax future growth prospects.

Sub-Saharan Africa: Details of food grain import projections

	World food grain aid 1/											
	S.S. Africa			Wheat			Rice			Corn		
	Food grain aid	Share of world grain aid	Percent	Food aid 2/	Com-mercial	Total imports	Food aid 2/	Com-mercial	Total imports	Food aid 2/	Com-mercial	Total imports
	---	1,000 tons	---				---	1,000 tons		---		
1993	12,615	3,567	28	2,242	2,861	5,103	405	2,153	2,558	920	955	1,875
1994	8,657	3,058	35	1,900	2,700	4,600	400	1,957	2,357	760	1,249	2,009
1995	7,343	2,414	33	1,672	2,303	3,975	278	2,654	2,932	465	262	727
1996	4,900	2,254	46	1,585	2,902	4,487	270	2,211	2,481	400	1,594	1,994
1997	5,319	2,250	42	1,485	2,835	4,320	270	2,462	2,732	495	1,190	1,685
1998	5,114	2,202	43	1,453	3,231	4,684	264	2,891	3,155	484	796	1,280
1999	5,014	2,198	44	1,450	2,921	4,371	264	2,782	3,046	483	586	1,069
2000	4,898	2,186	45	1,443	2,900	4,343	262	2,787	3,049	481	562	1,043
2001	4,901	2,226	45	1,469	2,787	4,256	267	2,712	2,979	490	549	1,039
2002	4,931	2,281	46	1,505	2,696	4,201	274	2,596	2,870	502	526	1,028
2003	4,963	2,337	47	1,542	2,726	4,268	280	2,506	2,786	514	511	1,025
2004	4,969	2,381	48	1,572	2,690	4,262	286	2,396	2,682	524	449	973
2005	5,003	2,441	49	1,611	2,631	4,242	293	2,358	2,651	537	345	882
2006	5,064	2,515	50	1,660	2,565	4,225	302	2,251	2,553	553	285	838
2007	5,100	2,579	51	1,702	2,661	4,363	309	2,197	2,506	567	235	802

1/ USDA baseline assumptions. U.S. assumptions are for constant nominal U.S. P.L. 480, Title I budget and 2.1 percent annual growth in P.L. 480, Titles II and III budgets for FY 1999-2007. Assumes constant real budget for Australia and Canada, and constant tonnage donations by the EU, Japan, and other donors.

2/ Based on historical shares of food aid in the form of wheat (66 percent), corn (22 percent), and rice (12 percent).

**Australia.** Australia is projected to increase wheat exports gradually over the baseline period, from 14 million tons to more than 16 million by 2007, well above the 12.4 million tons averaged during 1992-1996. Export subsidy disciplines affecting other exporters under the Uruguay Round and strong demand growth for Australia's white wheat are expected to maintain favorable returns to Australian wheat producers.

**Argentina.** Argentina's wheat exports are expected to increase dramatically as wheat prices rise relative to competing crops in the latter year of the baseline. In the early years of the baseline, Argentina is projected to export less than 8 million tons of wheat, less than in 1996/97 and 1997/98, but more than the 1992-1996 average of 6.6 million. Argentina is expected to

be quite sensitive to relative price changes between wheat, oilseeds, and feed grains. With projected wheat prices strengthening later in the baseline, wheat exports are expected to exceed 11 million tons by 2007.

**Central and Eastern Europe.** In the first years of the baseline, the Central and Eastern Europe region is projected to be small net exporter of wheat but, by 2007, the region's projected net wheat exports rise to more than 4 million tons. Production is expected to expand in response to higher world prices and productivity gains. The timing and volume of increases in wheat exports from this region, will depend, however, on highly uncertain agricultural policies and investments in marketing and transportation infrastructure.

Table 7--Wheat Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	215,177	2.44	524,602	97,110	94,939	548,233	430,374	75.5	72,059	118,383
1995	219,524	2.45	537,532	97,100	97,560	550,859	437,930	75.7	72,973	105,425
1996	230,733	2.52	582,552	97,719	102,980	579,162	451,408	77.0	72,744	109,770
1997	229,150	2.66	609,351	97,239	97,857	585,424	461,369	77.6	71,717	133,412
1994-97 ave.	223,646	2.52	563,509	97,292	98,334	565,920	445,270	76.5	72,373	116,748
1999	227,507	2.59	588,867	103,446	103,446	590,387	464,608	76.1	72,280	110,584
2000	227,991	2.62	597,392	105,428	105,428	598,749	473,907	76.6	72,676	109,227
2001	229,424	2.66	610,247	108,449	108,449	609,846	483,027	77.0	73,004	109,628
2002	229,789	2.70	619,303	111,521	111,521	618,724	490,651	77.2	73,303	110,206
2003	229,998	2.73	628,014	114,541	114,541	627,149	497,604	77.4	73,566	111,071
2004	229,845	2.77	635,800	118,357	118,357	635,702	504,662	77.5	73,839	111,169
2005	230,208	2.80	644,804	121,448	121,448	644,096	511,482	77.6	74,094	111,878
2006	230,557	2.83	653,467	124,473	124,473	652,810	518,464	77.7	74,352	112,535
2007	230,893	2.87	662,075	127,874	127,874	661,796	525,922	77.8	74,581	112,814
<b>United States</b>										
1994	24,998	2.53	63,167	2,502	32,340	35,014	23,215	88.3	9,373	13,787
1995	24,664	2.41	59,400	1,849	33,778	31,024	24,059	90.6	4,164	10,234
1996	25,466	2.44	62,191	2,513	27,254	35,611	24,276	90.6	8,544	12,073
1997	25,729	2.67	68,761	2,449	29,257	35,678	24,766	91.6	8,165	18,348
1994-97 ave.	25,214	2.51	63,380	2,328	30,657	34,332	24,079	90.3	7,562	13,611
1999	25,344	2.57	65,072	3,130	35,393	34,101	25,310	92.1	6,124	16,610
2000	25,506	2.58	65,834	3,266	36,733	33,728	25,583	92.3	5,443	15,249
2001	25,870	2.60	67,304	3,266	37,415	34,026	25,855	92.5	5,443	14,378
2002	26,032	2.62	68,257	3,130	37,414	34,300	26,127	92.7	5,443	14,051
2003	26,235	2.64	69,318	3,130	38,111	34,309	26,399	92.9	5,171	14,079
2004	26,397	2.66	70,271	2,994	39,453	34,357	26,671	93.2	4,899	13,534
2005	26,761	2.68	71,767	2,994	40,138	34,650	26,943	93.4	4,899	13,507
2006	26,923	2.70	72,747	2,994	40,815	34,953	27,216	93.6	4,899	13,480
2007	27,125	2.72	73,863	2,994	42,178	35,115	27,488	93.7	4,763	13,044
<b>Algeria</b>										
1994	900	0.83	750	5,653	0	5,900	5,700	199.7	200	1,196
1995	1,400	0.89	1,250	3,401	5	5,600	5,140	176.1	100	242
1996	1,500	1.47	2,200	3,600	0	5,693	5,200	174.3	100	349
1997	1,300	0.50	650	4,800	0	5,600	5,050	165.7	50	199
1994-97 ave.	1,275	0.95	1,213	4,364	1	5,698	5,273	179.0	113	497
1999	1,398	0.96	1,340	4,129	0	5,435	5,351	168.3	83	543
2000	1,405	0.96	1,353	4,209	0	5,550	5,467	168.5	83	555
2001	1,412	0.97	1,367	4,295	0	5,652	5,567	168.1	83	565
2002	1,419	0.97	1,380	4,390	0	5,759	5,675	168.0	83	576
2003	1,426	0.98	1,394	4,488	0	5,871	5,786	168.0	83	587
2004	1,433	0.98	1,408	4,672	0	6,061	5,975	170.1	83	606
2005	1,440	0.99	1,422	4,807	0	6,214	6,128	171.2	83	621
2006	1,448	0.99	1,437	4,939	0	6,361	6,274	172.0	83	636
2007	1,455	1.00	1,451	5,068	0	6,505	6,417	172.8	83	650
<b>Argentina</b>										
1994	5,100	2.22	11,300	19	7,300	4,318	4,165	121.5	150	150
1995	4,500	1.91	8,600	33	4,457	4,176	4,130	119.1	150	150
1996	7,100	2.24	15,900	30	10,500	4,780	4,230	120.7	350	800
1997	5,700	2.44	13,900	20	9,400	4,800	4,350	122.8	350	520
1994-97 ave.	5,600	2.22	12,425	26	7,914	4,519	4,219	121.0	250	405
1999	5,649	2.21	12,468	0	7,881	4,586	4,424	122.2	161	218
2000	5,736	2.26	12,937	0	8,333	4,597	4,441	121.4	157	225
2001	5,804	2.32	13,453	0	8,812	4,632	4,472	121.0	160	234
2002	5,925	2.37	14,022	0	9,341	4,670	4,505	120.6	165	245
2003	6,038	2.41	14,552	0	9,828	4,714	4,543	120.4	171	255
2004	6,108	2.45	14,985	0	10,226	4,751	4,575	120.1	176	263
2005	6,172	2.50	15,427	0	10,631	4,788	4,607	119.7	181	271
2006	6,244	2.54	15,887	0	11,049	4,828	4,641	119.4	188	281
2007	6,319	2.58	16,319	0	11,441	4,870	4,675	119.2	195	289

See note at end of table.

Continued---

Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Australia</b>											
1994	8,003	1.11	8,903	35	6,343	3,900	2,274	125.8	1,633	2,405	
1995	9,721	1.70	16,504	20	13,300	3,654	1,838	100.7	1,778	1,975	
1996	11,327	2.08	23,586	20	18,710	4,790	3,322	180.2	1,178	2,081	
1997	10,800	1.76	19,000	30	14,000	4,900	2,250	120.9	2,600	2,211	
1994-97 ave.	9,963	1.71	16,998	26	13,088	4,311	2,421	131.9	1,797	2,168	
1999	10,763	1.73	18,631	32	14,293	4,387	2,295	121.1	2,092	2,742	
2000	10,750	1.76	18,928	33	14,584	4,433	2,307	120.7	2,126	2,686	
2001	10,910	1.78	19,431	34	14,956	4,510	2,322	120.5	2,187	2,685	
2002	11,054	1.80	19,892	35	15,331	4,584	2,339	120.4	2,245	2,697	
2003	11,121	1.82	20,228	35	15,576	4,676	2,356	120.3	2,322	2,708	
2004	11,148	1.84	20,515	36	15,790	4,761	2,372	120.2	2,389	2,708	
2005	11,187	1.86	20,806	37	15,991	4,840	2,389	120.2	2,453	2,720	
2006	11,286	1.88	21,166	38	16,257	4,916	2,406	120.2	2,510	2,751	
2007	11,288	1.89	21,378	38	16,405	4,990	2,423	120.2	2,568	2,772	
<b>Brazil</b>											
1994	1,365	1.60	2,185	6,545	0	8,100	8,100	50.4	300	1,306	
1995	1,034	1.49	1,540	5,470	0	8,100	8,100	49.8	300	216	
1996	1,800	1.78	3,200	5,178	0	8,100	8,100	49.2	300	494	
1997	1,550	1.81	2,800	5,700	0	8,500	8,200	49.3	600	494	
1994-97 ave.	1,437	1.69	2,431	5,723	0	8,200	8,125	49.7	375	628	
1999	1,344	1.65	2,221	6,250	0	8,476	8,121	50.0	355	670	
2000	1,384	1.70	2,352	6,318	0	8,659	8,323	50.6	336	681	
2001	1,392	1.75	2,442	6,334	0	8,767	8,418	50.8	349	690	
2002	1,406	1.80	2,529	6,423	0	8,938	8,580	51.3	358	704	
2003	1,408	1.84	2,591	6,488	0	9,068	8,701	51.7	367	715	
2004	1,401	1.88	2,639	6,601	0	9,228	8,852	52.1	376	727	
2005	1,402	1.93	2,704	6,667	0	9,360	8,975	52.5	385	738	
2006	1,393	1.97	2,748	6,777	0	9,511	9,115	52.9	396	752	
2007	1,391	2.01	2,800	6,856	0	9,644	9,239	53.3	405	764	
<b>Canada</b>											
1994	10,838	2.13	23,122	111	20,850	7,821	3,800	133.3	4,035	5,679	
1995	11,141	2.25	25,037	131	16,341	7,778	3,801	131.9	3,900	6,728	
1996	12,262	2.43	29,801	275	19,500	8,218	3,975	136.5	4,193	9,086	
1997	11,400	2.13	24,300	200	19,000	8,500	4,000	136.0	4,500	6,086	
1994-97 ave.	11,410	2.24	25,565	179	18,923	8,079	3,894	134.4	4,157	6,895	
1999	11,859	2.20	26,045	127	17,937	8,153	3,758	125.3	4,395	6,361	
2000	11,962	2.20	26,269	128	17,961	8,312	3,800	125.6	4,511	6,485	
2001	11,948	2.20	26,268	130	18,062	8,326	3,838	125.7	4,487	6,495	
2002	11,953	2.20	26,312	131	18,109	8,330	3,866	125.5	4,464	6,499	
2003	11,939	2.20	26,315	132	18,145	8,315	3,879	124.9	4,435	6,486	
2004	11,961	2.21	26,388	134	18,162	8,340	3,895	124.4	4,445	6,506	
2005	11,982	2.21	26,466	135	18,227	8,359	3,912	123.9	4,447	6,521	
2006	11,936	2.21	26,408	136	18,222	8,338	3,928	123.5	4,410	6,505	
2007	11,930	2.22	26,432	138	18,246	8,330	3,941	122.9	4,389	6,499	
<b>Central America &amp; Caribbean</b>											
1994	14	1.57	22	2,880	0	2,910	2,760	40.6	160	195	
1995	6	1.67	10	2,368	0	2,386	2,216	32.1	160	187	
1996	4	1.75	7	2,677	0	2,654	2,472	35.2	170	217	
1997	4	1.50	6	2,795	0	2,805	2,650	37.2	110	213	
1994-97 ave.	7	1.61	11	2,680	0	2,689	2,525	36.3	150	203	
1999	5	1.66	8	2,849	0	2,858	2,744	37.3	114	193	
2000	5	1.68	8	2,846	0	2,856	2,743	36.8	113	191	
2001	5	1.68	9	2,862	0	2,870	2,756	36.4	114	192	
2002	5	1.69	9	2,877	0	2,885	2,770	36.0	115	193	
2003	5	1.70	9	2,897	0	2,905	2,789	35.8	116	194	
2004	5	1.71	9	2,916	0	2,924	2,807	35.5	117	195	
2005	5	1.72	9	2,935	0	2,943	2,825	35.2	118	196	
2006	5	1.73	9	2,954	0	2,962	2,843	34.9	119	197	
2007	5	1.74	9	2,969	0	2,978	2,857	34.6	121	198	

See note at end of table.

Continued---

Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Central &amp; Eastern Europe</b>										
1994	10,072	3.37	33,962	1,928	2,606	32,226	20,141	167.3	11,662	6,684
1995	9,706	3.60	34,979	1,563	4,900	31,230	19,926	165.8	11,150	7,096
1996	8,755	3.02	26,400	3,579	654	30,800	20,301	169.1	10,400	5,621
1997	9,968	3.49	34,751	1,300	2,900	33,095	21,785	181.5	11,275	5,677
1994-97 ave.	9,625	3.38	32,523	2,093	2,765	31,838	20,538	170.9	11,122	6,270
1999	9,748	3.45	33,608	1,756	2,554	32,776	21,800	181.1	10,976	4,452
2000	9,922	3.51	34,844	1,343	2,780	33,322	22,246	184.3	11,078	4,537
2001	10,047	3.54	35,578	1,029	2,781	33,773	22,379	184.9	11,393	4,591
2002	10,084	3.57	35,980	910	3,262	33,634	22,335	184.1	11,299	4,584
2003	10,080	3.59	36,227	826	3,599	33,478	22,189	182.5	11,287	4,560
2004	10,067	3.63	36,531	795	4,014	33,326	22,150	181.8	11,175	4,546
2005	10,073	3.66	36,846	791	4,507	33,154	22,092	180.9	11,061	4,523
2006	10,071	3.67	37,011	789	4,580	33,209	22,139	181.0	11,072	4,534
2007	10,057	3.70	37,182	788	4,846	33,151	22,022	179.9	11,128	4,507
<b>China</b>										
1994	28,981	3.43	99,300	10,241	2	110,525	107,525	89.7	3,000	21,744
1995	28,860	3.54	102,215	12,522	185	112,000	108,800	89.9	3,200	24,296
1996	29,610	3.73	110,570	2,800	200	113,000	109,500	89.6	3,500	24,466
1997	30,000	4.13	124,000	2,000	200	114,000	109,000	88.4	3,700	36,266
1994-97 ave.	29,363	3.71	109,021	6,891	147	112,381	108,706	89.4	3,350	26,693
1999	28,193	3.58	100,921	5,689	200	106,867	103,917	82.9	2,950	25,431
2000	27,479	3.65	100,167	6,184	200	106,642	103,410	81.9	3,232	24,940
2001	27,795	3.68	102,405	6,816	200	108,870	105,206	82.7	3,664	25,091
2002	27,801	3.73	103,643	7,376	200	110,886	106,810	83.4	4,076	25,024
2003	27,926	3.77	105,220	7,880	200	112,901	108,428	84.1	4,473	25,023
2004	27,602	3.82	105,314	8,844	200	114,262	109,281	84.2	4,982	24,719
2005	27,541	3.86	106,301	9,561	200	115,785	110,330	84.4	5,455	24,596
2006	27,514	3.90	107,344	10,282	200	117,539	111,616	84.9	5,923	24,483
2007	27,517	3.94	108,370	11,248	200	119,535	113,053	85.4	6,482	24,366
<b>Czech Republic</b>										
1994	851	4.58	3,897	5	515	3,290	1,490	144.3	1,800	1,199
1995	831	4.60	3,823	5	356	3,500	1,700	164.7	1,800	1,171
1996	799	4.66	3,727	150	50	3,827	1,760	170.6	2,000	1,171
1997	824	4.47	3,681	0	100	3,800	1,780	172.4	2,000	952
1994-97 ave.	826	4.58	3,782	40	255	3,604	1,683	163.0	1,900	1,123
1999	824	4.65	3,833	0	242	3,574	1,748	168.8	1,826	1,054
2000	851	4.71	4,010	0	287	3,689	2,030	195.5	1,659	1,088
2001	852	4.75	4,045	0	322	3,716	2,019	194.0	1,696	1,095
2002	852	4.77	4,066	0	389	3,685	1,977	189.7	1,709	1,087
2003	846	4.80	4,060	0	468	3,614	1,832	175.5	1,782	1,065
2004	845	4.84	4,087	0	528	3,571	1,769	169.3	1,803	1,053
2005	846	4.86	4,114	0	657	3,483	1,667	159.4	1,816	1,027
2006	842	4.88	4,112	0	622	3,488	1,628	155.6	1,861	1,029
2007	839	4.90	4,115	0	745	3,397	1,481	141.6	1,916	1,002
<b>Egypt</b>										
1994	730	5.62	4,100	5,856	0	9,956	9,856	158.1	100	830
1995	1,055	5.40	5,700	5,919	5	11,614	11,640	183.1	60	830
1996	1,016	5.64	5,735	7,000	0	12,735	12,675	195.6	60	830
1997	1,044	5.60	5,850	7,200	0	13,050	13,040	197.5	60	830
1994-97 ave.	961	5.56	5,346	6,494	1	11,839	11,803	183.6	70	830
1999	857	5.62	4,814	7,287	0	12,087	11,761	171.9	326	843
2000	874	5.62	4,912	7,448	0	12,343	12,002	172.3	332	860
2001	899	5.65	5,076	7,531	0	12,590	12,241	172.7	338	877
2002	908	5.67	5,144	7,737	0	12,862	12,505	173.4	345	896
2003	915	5.68	5,199	7,955	0	13,135	12,770	174.1	351	915
2004	916	5.70	5,221	8,198	0	13,401	13,027	174.7	357	933
2005	929	5.72	5,310	8,393	0	13,684	13,301	175.5	364	953
2006	945	5.73	5,417	8,589	0	13,985	13,592	176.5	373	974
2007	958	5.75	5,510	8,786	0	14,276	13,872	177.3	381	994

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>EU-15</b>										
1994	15,786	5.36	84,541	2,082	16,800	74,335	33,905	90.9	32,594	11,706
1995	16,161	5.33	86,161	5,225	15,354	77,018	33,997	90.8	34,490	10,720
1996	16,772	5.88	98,551	4,495	19,650	79,631	35,020	93.2	37,050	14,485
1997	17,094	5.57	95,194	2,900	15,000	83,250	34,687	92.1	38,265	14,329
1994-97 ave.	16,453	5.54	91,112	3,676	16,701	78,559	34,402	91.7	35,600	12,810
1999	17,365	5.72	99,346	3,000	17,830	84,307	35,327	93.1	41,081	14,332
2000	16,709	5.82	97,233	3,000	16,688	83,656	35,595	93.5	40,222	14,221
2001	16,789	5.91	99,299	3,000	17,811	84,367	35,858	93.9	40,525	14,342
2002	16,855	6.00	101,129	3,000	18,903	85,101	36,157	94.4	40,828	14,467
2003	16,891	6.09	102,873	3,000	19,833	85,903	36,434	94.9	41,207	14,604
2004	16,942	6.19	104,793	3,000	21,007	86,658	36,689	95.4	41,547	14,732
2005	16,928	6.28	106,331	3,000	21,880	87,336	36,941	95.8	41,827	14,847
2006	17,052	6.36	108,511	3,000	23,200	88,169	37,222	96.4	42,253	14,989
2007	17,034	6.45	109,923	3,000	24,268	88,585	37,480	97.0	42,274	15,059
<b>Former Soviet Union</b>										
1994	42,599	1.42	60,698	7,674	3,922	76,545	46,241	158.0	30,353	19,941
1995	45,766	1.32	60,282	9,448	5,764	72,650	46,247	158.0	26,871	11,257
1996	47,954	1.34	64,339	6,275	3,450	71,573	46,350	158.2	23,066	6,848
1997	48,105	1.68	81,030	6,020	5,000	73,649	51,365	175.1	22,730	15,249
1994-97 ave.	46,106	1.44	66,587	7,354	4,534	73,604	47,551	162.3	25,755	13,324
1999	46,830	1.59	74,495	6,293	5,648	75,867	48,779	165.3	27,088	8,789
2000	47,293	1.62	76,561	6,097	5,914	77,539	50,801	171.6	26,740	7,994
2001	47,059	1.64	77,242	6,963	6,066	78,088	51,068	171.8	27,020	8,045
2002	46,788	1.66	77,896	7,740	6,431	79,079	51,704	173.3	27,375	8,171
2003	46,442	1.69	78,539	8,035	6,666	79,820	51,843	173.1	27,978	8,259
2004	46,202	1.72	79,534	8,391	6,860	80,941	52,474	174.5	28,465	8,383
2005	45,960	1.75	80,612	8,433	7,137	81,808	52,816	174.9	28,993	8,483
2006	45,712	1.79	81,787	8,442	7,392	82,732	53,213	175.5	29,520	8,588
2007	45,515	1.83	83,286	8,107	7,662	83,623	53,497	175.7	30,128	8,696
<b>Hungary</b>										
1994	1,059	4.59	4,860	7	1,286	3,750	2,150	213.5	1,600	834
1995	1,080	4.26	4,600	435	1,599	3,570	2,225	222.4	1,500	700
1996	1,193	3.27	3,900	15	400	3,615	2,325	234.0	1,300	600
1997	1,200	4.33	5,200	0	1,200	3,700	2,275	230.3	1,400	900
1994-97 ave.	1,133	4.10	4,640	114	1,121	3,659	2,244	225.1	1,450	759
1999	1,182	4.21	4,979	0	1,125	3,836	2,305	235.3	1,530	537
2000	1,215	4.28	5,195	0	1,404	3,796	2,348	240.4	1,448	532
2001	1,226	4.33	5,303	0	1,485	3,815	2,378	244.2	1,437	535
2002	1,230	4.37	5,371	0	1,678	3,708	2,270	233.8	1,437	520
2003	1,222	4.41	5,387	0	1,756	3,641	2,155	222.7	1,485	510
2004	1,220	4.45	5,428	0	1,867	3,571	2,052	212.7	1,518	500
2005	1,223	4.49	5,494	0	1,937	3,558	2,034	211.6	1,524	499
2006	1,223	4.52	5,532	0	1,943	3,586	2,044	213.5	1,541	502
2007	1,215	4.56	5,538	0	1,955	3,583	1,995	209.2	1,588	502
<b>India</b>										
1994	25,100	2.38	59,840	30	75	57,695	50,283	53.7	200	10,900
1995	25,600	2.56	65,470	50	595	63,300	55,088	57.9	300	12,525
1996	25,100	2.49	62,620	1,161	1,612	65,920	57,330	59.2	350	8,774
1997	25,900	2.65	68,700	1,500	0	67,300	57,528	58.5	350	11,674
1994-97 ave.	25,425	2.52	64,158	685	571	63,554	55,057	57.3	300	10,968
1999	26,966	2.79	75,190	100	0	75,324	64,477	63.7	302	9,683
2000	27,432	2.91	79,879	100	522	79,138	67,779	66.0	279	10,002
2001	27,674	3.00	82,936	100	614	82,450	70,644	67.8	263	9,974
2002	27,529	3.07	84,524	100	774	83,873	71,882	68.0	249	9,951
2003	27,341	3.14	85,832	100	803	85,149	72,989	68.1	238	9,931
2004	27,240	3.21	87,368	100	841	86,643	74,286	68.4	227	9,915
2005	27,243	3.26	88,877	100	909	88,080	75,532	68.7	217	9,903
2006	27,279	3.30	89,967	100	906	89,165	76,474	68.7	208	9,899
2007	27,387	3.34	91,364	100	752	90,587	77,706	68.9	199	10,024

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Indonesia</b>										
1994	0	0.00	0	3,800	0	3,500	3,360	16.5	140	450
1995	0	0.00	0	3,600	1	3,749	3,610	17.5	140	300
1996	0	0.00	0	4,195	0	4,095	3,860	18.4	140	400
1997	0	0.00	0	4,500	0	4,500	4,360	20.5	140	400
1994-97 ave.	0	0.00	0	4,024	0	3,961	3,798	18.2	140	388
1999	0	0.00	0	4,967	0	4,960	4,819	22.0	141	165
2000	0	0.00	0	5,323	0	5,311	5,170	23.2	141	177
2001	0	0.00	0	5,648	0	5,637	5,496	24.4	141	188
2002	0	0.00	0	5,899	0	5,891	5,750	25.1	141	196
2003	0	0.00	0	6,173	0	6,164	6,023	26.0	141	206
2004	0	0.00	0	6,555	0	6,542	6,401	27.3	142	218
2005	0	0.00	0	6,900	0	6,889	6,746	28.4	142	230
2006	0	0.00	0	7,258	0	7,246	7,103	29.5	143	242
2007	0	0.00	0	7,679	0	7,665	7,521	30.8	144	256
<b>Iran</b>										
1994	7,600	1.51	11,500	3,200	0	14,200	13,700	212.0	500	4,800
1995	7,600	1.49	11,300	2,750	0	15,100	14,350	217.1	750	3,750
1996	7,600	1.45	11,000	6,849	0	16,000	15,200	225.1	1,000	5,599
1997	7,400	1.35	10,000	5,000	0	16,500	16,000	232.0	750	4,099
1994-97 ave.	7,550	1.45	10,950	4,450	0	15,450	14,813	221.5	750	4,562
1999	7,601	1.45	11,042	5,128	0	15,922	15,272	212.5	650	3,264
2000	7,637	1.46	11,149	5,331	0	16,225	15,569	211.7	650	3,519
2001	7,657	1.47	11,234	5,534	0	16,564	15,898	211.3	650	3,723
2002	7,672	1.47	11,313	5,709	0	16,889	16,226	211.1	650	3,856
2003	7,688	1.48	11,393	5,894	0	17,185	16,521	210.4	650	3,958
2004	7,708	1.49	11,480	6,147	0	17,467	16,800	209.6	650	4,118
2005	7,724	1.50	11,561	6,335	0	17,751	17,081	208.9	650	4,263
2006	7,738	1.50	11,639	6,488	0	18,049	17,375	208.4	650	4,341
2007	7,755	1.51	11,723	6,692	0	18,336	17,658	207.7	650	4,420
<b>Japan</b>										
1994	152	3.72	565	6,310	452	6,400	5,487	43.8	913	1,275
1995	151	2.94	444	6,101	559	6,061	5,146	41.0	915	1,200
1996	159	3.01	478	6,264	400	6,342	5,350	42.6	992	1,200
1997	158	3.63	573	6,200	400	6,373	5,360	42.5	940	1,200
1994-97 ave.	155	3.32	515	6,219	453	6,294	5,336	42.5	940	1,219
1999	177	3.06	541	6,171	400	6,311	5,380	42.5	931	1,202
2000	178	3.07	547	6,172	400	6,318	5,389	42.5	930	1,203
2001	179	3.09	554	6,168	400	6,321	5,398	42.5	923	1,204
2002	180	3.11	560	6,163	400	6,323	5,406	42.5	916	1,204
2003	181	3.12	566	6,155	400	6,321	5,414	42.5	908	1,204
2004	183	3.14	573	6,145	400	6,318	5,419	42.5	900	1,204
2005	184	3.16	580	6,132	400	6,313	5,422	42.4	892	1,203
2006	185	3.17	587	6,117	400	6,306	5,422	42.4	883	1,201
2007	187	3.18	594	6,098	400	6,294	5,421	42.4	874	1,199
<b>Malaysia</b>										
1994	0	0.00	0	1,157	129	1,058	995	50.9	60	230
1995	0	0.00	0	1,065	112	1,083	947	47.4	50	100
1996	0	0.00	0	1,139	100	1,039	850	41.7	50	100
1997	0	0.00	0	1,200	100	1,100	950	45.7	50	100
1994-97 ave.	0	0.00	0	1,140	110	1,070	936	46.4	53	133
1999	0	0.00	0	1,203	109	1,088	1,033	47.8	54	108
2000	0	0.00	0	1,254	113	1,134	1,078	49.0	56	115
2001	0	0.00	0	1,310	117	1,185	1,127	50.3	59	122
2002	0	0.00	0	1,369	121	1,240	1,179	51.6	61	130
2003	0	0.00	0	1,430	124	1,297	1,234	53.1	63	139
2004	0	0.00	0	1,494	127	1,358	1,292	54.6	66	149
2005	0	0.00	0	1,560	129	1,421	1,353	56.3	68	159
2006	0	0.00	0	1,627	131	1,485	1,415	57.9	71	169
2007	0	0.00	0	1,696	133	1,552	1,478	59.4	74	180

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Mexico</b>											
1994	965	4.30	4,151	1,374	84	5,324	4,974	52.9	350	567	
1995	929	3.73	3,468	1,581	302	4,869	4,700	49.1	200	445	
1996	809	4.17	3,375	1,936	0	5,000	4,750	48.7	200	756	
1997	919	4.13	3,800	1,500	0	5,200	4,800	48.3	300	856	
1994-97 ave.	906	4.08	3,699	1,598	97	5,098	4,806	49.7	263	656	
1999	872	4.14	3,613	1,709	0	5,301	5,094	49.5	206	737	
2000	878	4.18	3,672	1,818	0	5,467	5,258	50.2	209	760	
2001	886	4.22	3,740	1,919	0	5,636	5,425	51.0	211	783	
2002	895	4.26	3,815	1,999	0	5,792	5,580	51.6	213	805	
2003	904	4.31	3,894	2,083	0	5,955	5,739	52.2	215	828	
2004	914	4.35	3,976	2,161	0	6,115	5,897	52.8	217	850	
2005	925	4.39	4,062	2,239	0	6,278	6,059	53.4	219	873	
2006	935	4.44	4,152	2,316	0	6,445	6,223	54.1	222	896	
2007	945	4.49	4,243	2,397	0	6,616	6,393	54.7	224	920	
<b>Morocco</b>											
1994	3,050	1.81	5,523	1,221	0	5,321	5,121	175.6	200	1,516	
1995	1,700	0.65	1,100	2,431	0	4,887	4,706	158.0	100	160	
1996	3,220	1.83	5,900	1,520	0	5,256	5,000	164.5	200	2,324	
1997	2,500	0.84	2,100	2,400	0	5,400	5,200	167.7	200	1,424	
1994-97 ave.	2,618	1.40	3,656	1,893	0	5,216	5,007	166.5	175	1,356	
1999	2,593	1.05	2,720	2,940	0	5,629	5,393	167.3	235	792	
2000	2,612	1.03	2,693	3,098	0	5,772	5,523	168.2	239	811	
2001	2,623	1.05	2,757	3,172	0	5,910	5,657	169.1	244	830	
2002	2,632	1.07	2,820	3,250	0	6,050	5,791	169.9	248	850	
2003	2,648	1.09	2,886	3,346	0	6,210	5,945	171.3	252	872	
2004	2,672	1.10	2,949	3,443	0	6,370	6,099	172.7	256	894	
2005	2,694	1.12	3,027	3,515	0	6,521	6,244	173.7	260	915	
2006	2,715	1.16	3,145	3,564	0	6,686	6,404	175.1	264	938	
2007	2,738	1.20	3,273	3,612	0	6,861	6,573	176.7	268	962	
<b>Pakistan</b>											
1994	8,034	1.89	15,212	2,123	6	18,137	17,691	129.8	450	2,900	
1995	8,170	2.08	17,002	1,903	0	18,905	18,450	131.8	450	2,900	
1996	8,376	2.02	16,907	3,012	0	20,119	19,650	136.6	450	2,700	
1997	8,100	2.10	17,000	4,000	300	19,850	19,750	133.6	300	3,550	
1994-97 ave.	8,170	2.02	16,530	2,760	77	19,253	18,885	133.0	413	3,013	
1999	8,502	2.15	18,244	3,681	0	21,811	21,341	136.8	471	2,767	
2000	8,614	2.18	18,765	3,834	0	22,492	22,012	137.4	480	2,874	
2001	8,743	2.20	19,261	4,068	0	23,215	22,726	138.2	488	2,988	
2002	8,861	2.23	19,730	4,280	0	23,899	23,403	138.7	496	3,099	
2003	8,952	2.25	20,141	4,496	0	24,532	24,027	138.8	504	3,204	
2004	9,025	2.27	20,519	4,839	0	25,241	24,730	139.3	511	3,321	
2005	9,089	2.30	20,888	5,139	0	25,913	25,396	139.5	518	3,435	
2006	9,152	2.32	21,230	5,423	0	26,544	26,018	139.4	525	3,544	
2007	9,212	2.34	21,593	5,754	0	27,228	26,697	139.6	532	3,663	
<b>Philippines</b>											
1994	0	0.00	0	2,051	0	2,051	1,551	21.3	500	145	
1995	0	0.00	0	1,964	0	1,964	1,700	22.8	400	145	
1996	0	0.00	0	2,156	0	2,156	2,000	26.3	200	145	
1997	0	0.00	0	2,100	0	2,100	2,000	25.7	200	145	
1994-97 ave.	0	0.00	0	2,068	0	2,068	1,813	24.0	325	145	
1999	0	0.00	0	2,470	0	2,468	2,342	28.9	127	149	
2000	0	0.00	0	2,555	0	2,554	2,443	29.6	111	150	
2001	0	0.00	0	2,617	0	2,616	2,523	30.0	93	151	
2002	0	0.00	0	2,742	0	2,741	2,659	31.0	81	152	
2003	0	0.00	0	2,865	0	2,863	2,789	31.9	74	154	
2004	0	0.00	0	3,009	0	3,008	2,942	33.0	65	155	
2005	0	0.00	0	3,162	0	3,160	3,104	34.2	57	157	
2006	0	0.00	0	3,300	0	3,299	3,249	35.2	50	158	
2007	0	0.00	0	3,483	0	3,481	3,438	36.6	43	160	

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area 1,000 ha	Yield Tons/ha	Production	Imports ---	Exports 1,000 tons	Consumption			Feed ---	Ending stocks ---
						Total	Food	Food/cap Kgs.		
<b>Poland</b>										
1994	2,407	3.18	7,659	990	5	8,797	5,102	132.2	3,600	917
1995	2,407	3.60	8,668	553	136	9,002	5,393	139.6	3,650	1,000
1996	2,480	3.46	8,579	1,714	150	9,143	5,500	142.1	3,500	2,000
1997	2,549	3.24	8,250	400	200	9,450	5,700	147.0	3,800	1,000
1994-97 ave.	2,461	3.37	8,289	914	123	9,098	5,424	140.2	3,638	1,229
1999	2,453	3.51	8,605	712	0	9,317	5,709	146.3	3,609	1,217
2000	2,473	3.56	8,810	541	0	9,351	5,707	145.7	3,645	1,217
2001	2,470	3.60	8,890	423	0	9,313	5,711	145.3	3,601	1,217
2002	2,467	3.63	8,955	309	0	9,264	5,717	144.9	3,547	1,217
2003	2,464	3.66	9,020	228	0	9,248	5,723	144.5	3,525	1,217
2004	2,466	3.70	9,115	200	67	9,248	5,727	144.1	3,521	1,217
2005	2,468	3.73	9,197	200	178	9,219	5,731	143.7	3,488	1,217
2006	2,463	3.75	9,236	200	256	9,180	5,736	143.4	3,445	1,217
2007	2,463	3.78	9,302	200	348	9,154	5,738	143.0	3,415	1,217
<b>Russia</b>										
1994	22,184	1.45	32,100	1,879	395	42,616	22,221	149.8	20,426	7,693
1995	23,909	1.26	30,100	4,991	177	39,420	21,500	145.1	17,920	3,187
1996	25,721	1.36	34,900	1,980	600	37,814	22,200	150.0	14,650	1,653
1997	25,700	1.72	44,200	2,000	1,250	38,814	24,000	162.4	14,650	7,789
1994-97 ave.	24,379	1.45	35,325	2,713	606	39,666	22,480	151.8	16,912	5,081
1999	24,867	1.49	36,942	2,015	500	38,406	22,822	154.3	15,584	2,880
2000	25,024	1.51	37,703	1,818	500	38,978	23,716	160.1	15,263	2,923
2001	24,822	1.52	37,805	2,044	550	39,276	24,007	161.9	15,270	2,946
2002	24,602	1.54	37,899	2,235	600	39,516	24,177	162.9	15,339	2,964
2003	24,343	1.56	37,990	2,442	650	39,764	24,185	162.7	15,579	2,982
2004	24,138	1.58	38,251	2,713	700	40,229	24,486	164.4	15,743	3,017
2005	23,934	1.61	38,559	2,784	750	40,567	24,630	165.1	15,938	3,043
2006	23,729	1.64	38,924	2,845	800	40,941	24,804	166.0	16,138	3,071
2007	23,549	1.68	39,449	2,643	850	41,221	24,827	165.9	16,394	3,092
<b>Saudi Arabia</b>										
1994	599	4.47	2,679	29	1,651	1,878	1,678	91.9	200	1,229
1995	465	4.30	2,000	43	181	1,850	1,600	84.9	200	1,241
1996	265	4.53	1,200	200	0	1,800	1,700	87.2	100	841
1997	330	4.55	1,500	300	0	1,800	1,700	84.1	100	841
1994-97 ave.	415	4.45	1,845	143	458	1,832	1,670	87.0	150	1,038
1999	305	4.52	1,376	598	2	1,968	1,840	84.9	128	770
2000	299	4.56	1,363	667	1	2,004	1,874	83.8	132	795
2001	293	4.61	1,349	719	0	2,050	1,916	83.0	136	813
2002	284	4.66	1,321	793	0	2,097	1,961	82.4	138	830
2003	275	4.70	1,293	876	0	2,143	2,005	81.8	140	856
2004	269	4.75	1,279	932	0	2,189	2,048	81.1	143	878
2005	264	4.80	1,265	1,003	0	2,239	2,095	80.5	145	907
2006	258	4.85	1,251	1,064	0	2,290	2,145	80.0	147	932
2007	253	4.89	1,237	1,127	0	2,341	2,192	79.4	151	955
<b>Slovakia</b>										
1994	442	4.85	2,145	2	200	1,823	668	124.7	1,162	450
1995	437	4.43	1,938	5	201	1,817	690	128.4	1,150	375
1996	415	4.13	1,713	250	50	1,838	850	157.6	1,000	450
1997	415	4.70	1,950	100	50	2,000	930	171.8	1,000	450
1994-97 ave.	427	4.53	1,937	89	125	1,870	785	145.6	1,078	431
1999	418	4.34	1,814	42	0	1,850	932	170.3	918	452
2000	432	4.41	1,907	2	0	1,898	1,019	185.1	879	463
2001	433	4.46	1,929	0	20	1,907	1,022	184.6	885	466
2002	432	4.50	1,946	0	51	1,897	1,015	182.3	883	463
2003	429	4.54	1,949	0	81	1,874	981	175.3	892	457
2004	429	4.59	1,968	0	105	1,865	978	173.9	887	455
2005	429	4.63	1,987	0	155	1,839	952	168.5	886	449
2006	427	4.66	1,992	0	159	1,834	940	165.6	895	448
2007	426	4.70	2,000	0	204	1,803	908	159.4	896	441

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>South Africa</b>										
1994	1,035	1.77	1,832	900	140	2,474	2,464	59.4	10	403
1995	1,363	1.43	1,950	900	160	2,650	2,690	63.5	10	443
1996	1,294	2.09	2,700	700	150	3,050	3,090	71.3	10	643
1997	1,380	1.67	2,300	700	150	3,050	3,285	74.2	15	443
1994-97 ave.	1,268	1.73	2,196	800	150	2,806	2,882	67.1	11	483
1999	1,363	1.87	2,544	662	100	3,069	3,068	66.3	1	585
2000	1,386	1.89	2,626	672	100	3,187	3,124	66.1	1	596
2001	1,403	1.92	2,698	674	100	3,258	3,200	66.3	1	610
2002	1,418	1.95	2,761	682	100	3,327	3,281	66.6	1	626
2003	1,434	1.97	2,826	695	100	3,405	3,363	66.8	1	642
2004	1,451	2.00	2,895	708	100	3,488	3,442	67.0	1	657
2005	1,466	2.02	2,963	716	100	3,563	3,526	67.3	1	673
2006	1,481	2.05	3,031	728	100	3,642	3,615	67.6	1	690
2007	1,498	2.07	3,103	739	100	3,726	3,701	67.9	1	706
<b>South Korea</b>										
1994	2	1.00	2	4,293	0	4,294	2,207	49.0	2,087	742
1995	2	5.00	10	2,554	0	2,561	2,289	50.3	272	745
1996	3	3.67	11	3,465	0	3,412	2,200	47.9	1,212	809
1997	2	5.00	10	3,800	0	3,800	2,200	47.4	1,500	819
1994-97 ave.	2	3.67	8	3,528	0	3,517	2,224	48.7	1,268	779
1999	2	5.00	10	3,000	0	3,040	2,379	50.2	662	525
2000	2	5.00	10	2,814	0	2,856	2,304	48.2	552	494
2001	2	5.00	10	2,759	0	2,782	2,321	48.1	461	481
2002	2	5.00	10	2,712	0	2,731	2,346	48.2	385	472
2003	2	5.00	10	2,679	0	2,695	2,374	48.4	321	466
2004	2	5.00	10	2,659	0	2,673	2,405	48.6	268	462
2005	2	5.00	10	2,644	0	2,657	2,433	48.8	224	459
2006	2	5.00	10	2,636	0	2,648	2,461	49.0	187	458
2007	2	5.00	10	2,633	0	2,644	2,487	49.2	156	457
<b>Sub-Saharan Africa</b>										
1994	1,540	1.57	2,417	4,600	0	7,138	7,046	13.0	3	400
1995	1,657	1.61	2,661	3,975	0	6,786	6,735	12.1	0	250
1996	2,097	1.59	3,324	4,742	0	7,943	7,186	12.5	0	373
1997	2,084	1.62	3,383	4,450	0	7,733	6,908	11.7	0	473
1994-97 ave.	1,845	1.60	2,946	4,442	0	7,400	6,969	12.3	1	374
1999	1,809	1.70	3,072	4,371	0	7,377	7,375	11.8	2	370
2000	1,847	1.72	3,183	4,343	0	7,518	7,537	11.8	2	379
2001	1,897	1.75	3,317	4,256	0	7,571	7,577	11.5	2	381
2002	1,922	1.77	3,411	4,201	0	7,609	7,642	11.3	2	384
2003	1,962	1.80	3,535	4,268	0	7,794	7,829	11.3	2	393
2004	1,992	1.83	3,644	4,262	0	7,903	7,882	11.0	2	396
2005	2,019	1.86	3,748	4,242	0	7,986	7,962	10.9	2	400
2006	2,057	1.88	3,875	4,225	0	8,095	8,068	10.7	2	405
2007	2,084	1.91	3,986	4,363	0	8,337	8,305	10.7	2	417
<b>Taiwan</b>										
1994	1	4.00	4	895	0	900	857	40.3	43	99
1995	1	3.00	3	1,092	0	1,080	1,037	48.3	43	114
1996	0	0.00	0	1,016	0	1,000	955	44.1	45	130
1997	1	5.00	5	1,100	0	1,100	1,055	48.3	45	135
1994-97 ave.	1	4.00	3	1,026	0	1,020	976	45.2	44	120
1999	0	0.00	0	1,119	0	1,120	1,076	48.4	44	121
2000	0	0.00	0	1,129	0	1,129	1,085	48.5	44	121
2001	0	0.00	0	1,139	0	1,138	1,095	48.5	43	122
2002	0	0.00	0	1,149	0	1,149	1,106	48.6	43	122
2003	0	0.00	0	1,159	0	1,159	1,117	48.7	42	122
2004	0	0.00	0	1,169	0	1,169	1,128	48.8	42	122
2005	0	0.00	0	1,179	0	1,179	1,138	48.9	41	122
2006	0	0.00	0	1,188	0	1,188	1,148	48.9	40	122
2007	0	0.00	0	1,197	0	1,197	1,158	49.0	39	122

See note at end of table.

Continued---

Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Thailand</b>											
1994	0	0.00	0	686	0	736	536	9.2	200	50	
1995	0	0.00	0	785	0	785	535	9.1	200	50	
1996	0	0.00	0	664	0	664	565	9.5	200	50	
1997	0	0.00	0	800	0	800	565	9.4	200	50	
1994-97 ave.	0	0.00	0	734	0	746	550	9.3	200	50	
1999	0	0.00	0	810	0	810	575	9.4	235	51	
2000	0	0.00	0	833	0	832	596	9.7	235	52	
2001	0	0.00	0	860	0	858	624	10.0	235	54	
2002	0	0.00	0	892	0	890	655	10.4	235	56	
2003	0	0.00	0	926	0	924	689	10.9	235	58	
2004	0	0.00	0	963	0	961	725	11.4	235	60	
2005	0	0.00	0	1,002	0	1,000	764	11.9	235	63	
2006	0	0.00	0	1,045	0	1,042	808	12.5	235	65	
2007	0	0.00	0	1,090	0	1,087	853	13.1	235	68	
<b>Tunisia</b>											
1994	470	1.06	500	1,511	0	2,211	2,211	249.6	0	500	
1995	750	0.71	530	938	0	1,768	1,650	182.9	0	200	
1996	1,100	1.82	2,000	900	0	2,406	2,300	250.5	0	694	
1997	800	1.13	900	1,400	0	2,300	2,350	251.4	0	694	
1994-97 ave.	780	1.26	983	1,187	0	2,171	2,128	233.6	0	522	
1999	896	1.53	1,370	1,072	0	2,422	2,422	250.4	0	558	
2000	903	1.55	1,400	1,071	0	2,463	2,459	250.1	0	566	
2001	904	1.57	1,423	1,077	0	2,493	2,489	249.0	0	573	
2002	903	1.60	1,443	1,094	0	2,529	2,525	248.6	0	581	
2003	903	1.62	1,465	1,114	0	2,570	2,564	248.4	0	590	
2004	904	1.63	1,475	1,137	0	2,604	2,600	248.0	0	599	
2005	904	1.66	1,497	1,158	0	2,646	2,639	248.0	0	608	
2006	903	1.68	1,518	1,176	0	2,685	2,679	248.0	0	617	
2007	903	1.71	1,542	1,193	0	2,726	2,718	247.9	0	626	
<b>Turkey</b>											
1994	8,600	1.71	14,700	444	1,761	15,183	14,583	239.7	600	703	
1995	8,550	1.81	15,500	2,080	963	16,420	15,650	253.2	800	900	
1996	8,450	1.89	16,000	2,326	1,000	17,326	16,300	259.7	800	900	
1997	8,500	1.88	16,000	1,500	1,000	16,600	15,900	249.4	700	800	
1994-97 ave.	8,525	1.82	15,550	1,588	1,181	16,382	15,608	250.5	725	826	
1999	8,370	1.89	15,823	1,352	1,000	15,991	15,224	231.6	767	1,014	
2000	8,391	1.90	15,958	1,481	1,000	16,190	15,318	229.6	847	1,263	
2001	8,360	1.91	15,995	1,648	1,016	16,368	15,457	228.4	883	1,522	
2002	8,327	1.92	16,026	1,697	1,036	16,541	15,606	227.4	907	1,668	
2003	8,295	1.94	16,061	1,818	1,057	16,729	15,749	226.4	947	1,761	
2004	8,275	1.95	16,118	1,922	1,078	16,882	15,880	225.4	965	1,841	
2005	8,243	1.96	16,153	2,017	1,100	17,027	16,017	224.5	970	1,884	
2006	8,202	1.97	16,169	2,118	1,122	17,169	16,161	223.9	960	1,880	
2007	8,172	1.98	16,206	2,225	1,144	17,320	16,295	223.2	974	1,847	
<b>Ukraine</b>											
1994	4,507	3.07	13,857	274	27	15,844	10,455	204.6	5,390	5,868	
1995	5,479	2.97	16,273	200	1,100	16,100	10,800	212.3	5,200	5,141	
1996	5,892	2.30	13,550	200	500	16,450	10,060	198.5	5,200	1,941	
1997	6,500	2.83	18,400	50	400	16,975	11,925	235.9	5,000	3,016	
1994-97 ave.	5,595	2.77	15,520	181	507	16,342	10,810	212.8	5,198	3,992	
1999	6,364	2.94	18,726	200	1,648	17,584	10,879	215.9	6,705	1,934	
2000	6,461	3.00	19,365	200	1,714	17,824	11,217	222.8	6,608	1,961	
2001	6,450	3.04	19,607	200	1,716	18,065	11,365	226.0	6,699	1,987	
2002	6,431	3.08	19,818	200	1,831	18,175	11,380	226.4	6,795	1,999	
2003	6,403	3.13	20,012	200	1,916	18,284	11,353	226.1	6,932	2,011	
2004	6,391	3.17	20,277	200	1,960	18,494	11,455	228.3	7,039	2,034	
2005	6,380	3.22	20,542	200	2,087	18,639	11,494	229.3	7,145	2,050	
2006	6,366	3.27	20,798	200	2,192	18,789	11,546	230.5	7,243	2,067	
2007	6,362	3.32	21,109	250	2,412	18,931	11,580	231.4	7,352	2,083	

See note at end of table.

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Table 7--Wheat Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Other Central &amp; Eastern Europe</b>											
1994	5,313	2.90	15,401	924	600	14,566	10,731	191.4	3,500	3,284	
1995	4,951	3.22	15,950	565	2,608	13,341	9,918	177.6	3,050	3,850	
1996	3,868	2.19	8,481	1,450	4	12,377	9,866	177.1	2,600	1,400	
1997	4,980	3.15	15,670	800	1,350	14,145	11,100	199.6	3,075	2,375	
1994-97 ave.	4,778	2.90	13,876	935	1,141	13,607	10,404	186.4	3,056	2,727	
1999	4,871	2.95	14,377	1,002	1,187	14,199	11,106	199.3	3,093	1,192	
2000	4,951	3.01	14,922	800	1,089	14,588	11,142	199.4	3,447	1,237	
2001	5,066	3.04	15,411	606	954	15,022	11,249	200.8	3,774	1,278	
2002	5,103	3.07	15,642	601	1,144	15,080	11,356	202.2	3,723	1,297	
2003	5,119	3.09	15,811	598	1,294	15,101	11,498	204.3	3,603	1,311	
2004	5,107	3.12	15,933	595	1,447	15,071	11,624	206.1	3,446	1,321	
2005	5,107	3.14	16,054	591	1,580	15,055	11,708	207.3	3,347	1,331	
2006	5,116	3.15	16,139	589	1,600	15,121	11,791	208.5	3,330	1,338	
2007	5,114	3.17	16,227	588	1,594	15,214	11,900	210.2	3,313	1,345	
<b>Other Former Soviet Union</b>											
1994	15,908	0.93	14,741	5,521	3,500	18,085	13,565	145.5	4,537	6,380	
1995	16,378	0.85	13,909	4,257	4,487	17,130	13,947	148.8	3,751	2,929	
1996	16,341	0.97	15,889	4,095	2,350	17,309	14,090	149.3	3,216	3,254	
1997	15,905	1.16	18,430	3,970	3,350	17,860	15,440	162.4	3,080	4,444	
1994-97 ave.	16,133	0.98	15,742	4,461	3,422	17,596	14,261	151.5	3,646	4,252	
1999	15,599	1.21	18,827	4,078	3,500	19,877	15,078	155.9	4,799	3,975	
2000	15,808	1.23	19,493	4,079	3,700	20,737	15,868	162.4	4,869	3,110	
2001	15,787	1.26	19,830	4,719	3,800	20,747	15,696	159.1	5,051	3,112	
2002	15,755	1.28	20,179	5,305	4,000	21,388	16,147	162.1	5,241	3,208	
2003	15,696	1.31	20,537	5,393	4,100	21,772	16,305	162.0	5,467	3,266	
2004	15,673	1.34	21,006	5,478	4,200	22,218	16,533	162.6	5,683	3,332	
2005	15,646	1.37	21,511	5,449	4,300	22,602	16,692	162.5	5,910	3,390	
2006	15,617	1.41	22,065	5,397	4,400	23,002	16,863	162.5	6,139	3,450	
2007	15,604	1.46	22,728	5,214	4,400	23,471	17,090	162.9	6,382	3,521	
<b>Other N. Africa &amp; Middle East</b>											
1994	3,839	1.48	5,689	7,131	6	12,414	11,891	158.0	565	3,619	
1995	3,917	1.62	6,360	6,535	358	12,067	11,540	148.7	400	4,089	
1996	3,916	1.58	6,185	8,000	500	13,786	11,856	148.0	600	3,988	
1997	3,653	1.31	4,795	9,310	400	14,455	14,050	170.0	600	3,238	
1994-97 ave.	3,831	1.50	5,757	7,744	316	13,181	12,334	156.2	541	3,734	
1999	3,950	1.57	6,183	9,276	0	15,403	14,822	168.6	581	4,400	
2000	4,020	1.60	6,439	9,689	0	15,952	15,377	169.7	569	4,576	
2001	4,079	1.63	6,663	10,037	0	16,521	15,953	171.0	562	4,755	
2002	4,111	1.66	6,829	10,416	0	17,077	16,514	171.9	554	4,923	
2003	4,144	1.69	6,998	10,792	0	17,630	17,075	172.7	547	5,083	
2004	4,169	1.72	7,155	11,164	0	18,166	17,617	173.2	539	5,236	
2005	4,197	1.74	7,323	11,553	0	18,722	18,178	173.9	532	5,390	
2006	4,228	1.77	7,487	11,898	0	19,248	18,711	174.2	525	5,527	
2007	4,256	1.80	7,653	12,371	0	19,859	19,329	175.3	517	5,692	

Note: Food category includes other uses in some countries.

Rice trade is projected to grow about 2 percent annually from 1997 (marketing year 1997/98) through 2007, with growth strengthening after 2000. Anticipated growth is about the same as in the 1980s and the early 1990s, but slower than in the 1970s. World trade is projected at 21.1 million tons by 2001 and 24.6 million tons by 2007. Trade is expected to continue to consist predominantly of long-grain varieties, despite anticipated gains in medium-grain (japonica) rice imports by Japan and South Korea under the Uruguay Round Agreement. Nominal prices are expected to rise throughout the projection period, while real prices continue to fall, although less rapidly than in the past. Global medium-grain prices are expected to rise relative to long-grain prices due to limited world export supplies of high-quality japonica rice and greater import demand.

Foreign production is forecast to rise gradually, growing a little less than 1.2 percent per year. Projected growth is slower than in the 1970s and 1980s, when irrigation expanded more rapidly in Asia and Green Revolution technology was widely adopted. Slower production growth stems primarily from a projected slowdown in yield increases. Global acreage growth is expected to remain extremely small, as it has since 1975.

Foreign consumption is also projected to rise about 1.2 percent per year, markedly slower than during the

1980s. Consumption in higher income Asian countries has been declining, and is expected to continue to decline, as larger portions of the population achieve middle-class incomes and consumption of rice declines in favor of other foods, such as wheat products and meat. Per capita rice use in other countries, including China and India, is projected to reach the stage where it flattens or declines during the coming decade as consumers primarily shift from lower-quality to higher-quality rice varieties and some begin to diversify their diets away from rice in response to higher incomes. These developments are expected to offset consumption gains in other regions, primarily lower income rice-producing countries and higher income nonproducing countries, where per capita rice use is still rising.

The rice export market share for the United States between 1991 and 1995 varied from 15 to 18 percent, and averaged about 13.5 percent in 1996 and 1997. It is projected to average 13.6 percent during 1997-2000 and then decline gradually to just over 11 percent by 2007. Small U.S. production gains, strong domestic use, and high prices relative to competitors are expected to limit the volume of U.S. rice exports. Total U.S. exports are projected at 2.8 million tons, while total imports rise to 0.5 million tons, leaving the U.S. a net exporter of 2.3 million tons of rice in 2007.

As a major exporter of medium-grain rice, the United States will benefit significantly from the Uruguay

Figure 7  
**Rice: Historical and projected world area and yield**

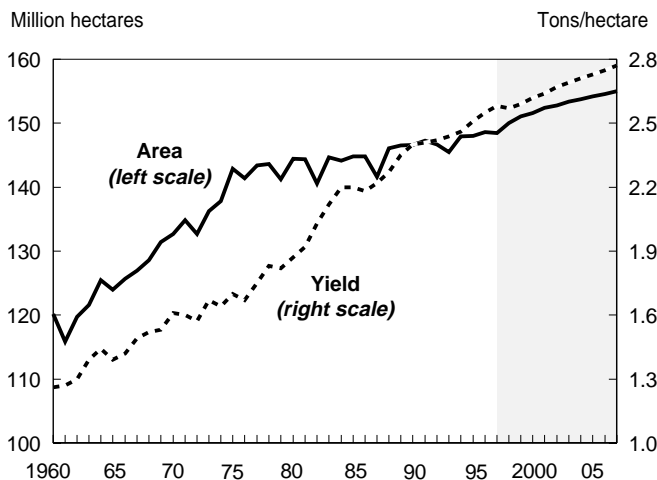


Figure 8  
**Rice: Historical and projected world supply and use**

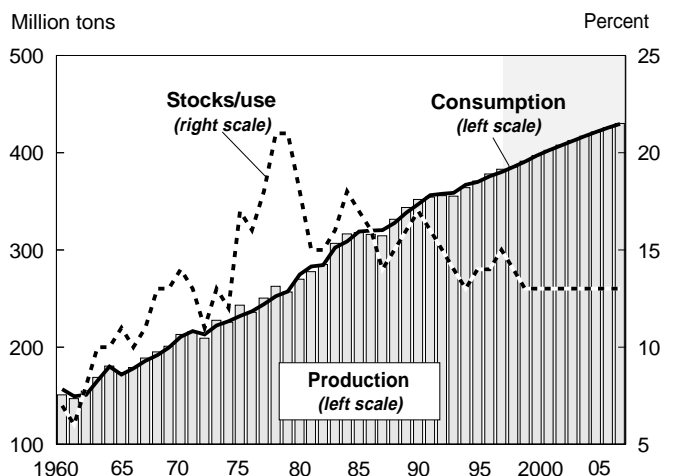




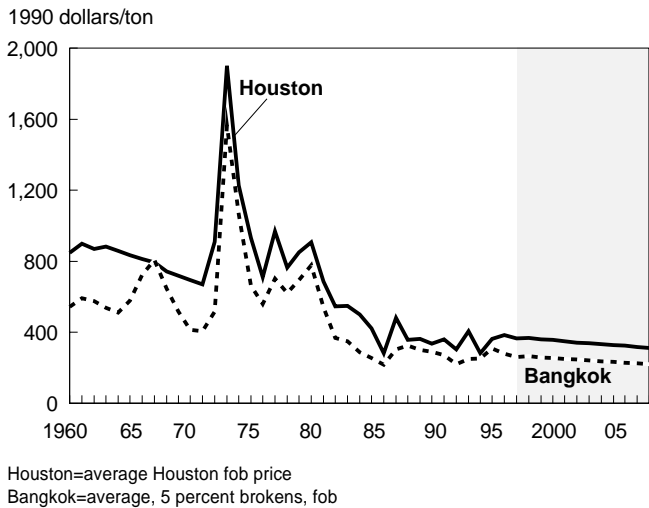
Table 8--Rice trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	3,341	2,687	2,495	2,580	2,776	2,717	2,726	2,739	2,742	2,753	2,758	2,766	2,772	2,783
Argentina	350	395	525	600	468	721	789	868	944	1,026	1,108	1,192	1,287	1,395
Australia	600	475	700	650	606	753	747	752	754	754	752	750	750	750
Burma	645	265	15	100	256	149	193	221	262	316	370	422	466	505
China	32	265	900	1,500	674	726	713	667	646	603	580	548	528	501
European Union-15 1/	200	197	175	204	194	202	220	235	256	280	304	336	205	205
Egypt	150	75	150	75	113	203	105	141	94	106	81	83	98	110
India	4,000	3,500	1,750	1,750	2,750	1,711	1,826	1,993	2,230	2,338	2,485	2,659	2,849	2,971
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	410	200	300	200	278	200	200	200	200	200	200	200	200	200
Other Asia and Oceania	85	0	100	50	59	50	50	50	49	49	49	49	48	48
Other S. America	952	1,043	1,135	1,065	1,049	1,089	1,093	1,089	1,090	1,087	1,086	1,087	1,088	1,086
Pakistan	1,660	1,634	1,750	1,775	1,705	1,920	1,934	1,977	2,015	2,062	2,098	2,134	2,178	2,228
South Korea	150	0	0	0	38	0	0	0	0	0	0	0	0	0
Thailand	5,931	5,280	5,275	5,800	5,572	6,020	6,268	6,541	6,713	6,917	7,105	7,303	7,504	7,718
Taiwan	117	189	50	50	102	9	1	5	3	2	31	49	53	55
Vietnam	2,308	3,040	3,500	3,500	3,087	3,571	3,431	3,498	3,542	3,727	3,792	3,878	3,904	3,986
Other	113	152	91	76	108	72	74	76	79	81	84	87	91	94
Total	21,044	19,397	18,911	19,975	19,832	20,113	20,370	21,052	21,619	22,301	22,883	23,543	24,021	24,635
<b>Importers</b>														
United States	223	236	317	286	266	360	378	397	417	438	460	483	507	532
Algeria	26	25	40	35	32	46	48	48	50	53	53	55	57	59
Australia	30	35	35	40	35	40	40	40	40	40	40	40	40	40
Bangladesh	813	1,575	200	100	672	359	369	380	388	395	402	411	417	425
Brazil	680	786	1,000	1,500	992	1,513	1,524	1,576	1,606	1,652	1,692	1,733	1,762	1,805
Canada	214	223	235	225	224	233	237	240	244	248	251	255	258	261
C. America & Caribbean	795	941	881	1,060	919	980	1,010	1,048	1,081	1,119	1,157	1,195	1,231	1,274
China	1,964	850	500	750	1,016	1,147	1,176	1,231	1,267	1,322	1,372	1,432	1,484	1,549
Central/East Europe	179	136	180	145	160	158	161	163	167	171	175	178	179	184
Czech Republic	5	11	10	15	10	15	15	15	16	16	16	16	16	16
Slovakia	5	10	15	15	11	15	16	16	16	16	17	17	17	18
Hungary	35	20	20	20	24	21	21	21	22	23	23	24	24	25
Poland	67	50	75	40	58	41	42	42	43	44	45	46	46	47
Other Central/East Europe	67	45	60	55	57	66	67	69	70	72	74	75	76	78
European Union-15 1/	500	550	600	504	539	444	446	459	473	486	500	514	553	561
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Former Soviet Union 2/	215	459	395	285	339	227	231	241	245	249	252	256	261	266
Russia	125	369	300	200	249	139	141	145	146	147	148	149	149	150
Ukraine	54	40	50	40	46	39	39	40	40	39	38	37	39	39
Other Former Soviet Union	36	50	45	45	44	49	51	56	59	63	66	70	73	77
Hong Kong	352	349	350	350	350	358	361	365	368	372	375	379	382	385
Indonesia	3,011	1,233	800	3,000	2,011	923	753	835	958	1,081	1,185	1,291	1,332	1,374
Iran	1,633	1,294	1,000	1,250	1,294	1,279	1,264	1,364	1,441	1,528	1,612	1,699	1,772	1,862
Iraq	92	236	640	600	392	584	622	652	683	715	749	783	815	851
Japan	9	451	600	600	415	758	758	758	758	758	758	758	758	758
Malaysia	317	402	572	625	479	585	595	606	619	631	644	656	668	681
Mexico	245	300	275	250	268	312	320	329	337	346	356	366	377	390
Other Asia	1,318	1,114	1,322	1,155	1,227	1,232	1,279	1,340	1,388	1,449	1,492	1,530	1,553	1,589
Other N. Africa & M. East	687	733	787	717	731	748	765	785	803	822	842	860	878	897
Other S. America	575	645	576	740	634	566	600	655	692	742	780	819	860	907
Sub-Saharan Africa	2,357	2,932	2,621	2,782	2,673	3,046	3,049	2,979	2,870	2,786	2,682	2,651	2,553	2,506
Philippines	0	975	700	1,150	706	863	950	1,027	1,097	1,171	1,255	1,325	1,384	1,463
Saudi Arabia	698	615	786	750	712	809	835	866	895	926	957	990	1,021	1,055
South Africa	402	634	709	550	574	539	549	567	581	598	614	630	642	659
South Korea	3	115	77	90	71	103	128	154	180	205	205	205	205	205
Turkey	450	350	250	250	325	325	331	341	349	359	368	378	385	394
Other	606	2,048	2,084	1,521	1,565	1,576	1,591	1,606	1,622	1,639	1,655	1,671	1,687	1,703
Total	18,394	20,242	18,532	21,310	19,619	20,113	20,370	21,052	21,619	22,301	22,883	23,543	24,021	24,635
Exports-Imports	2,650	-845	379	-1,335	212	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Figure 9

**Rice: Historical and projected real prices**

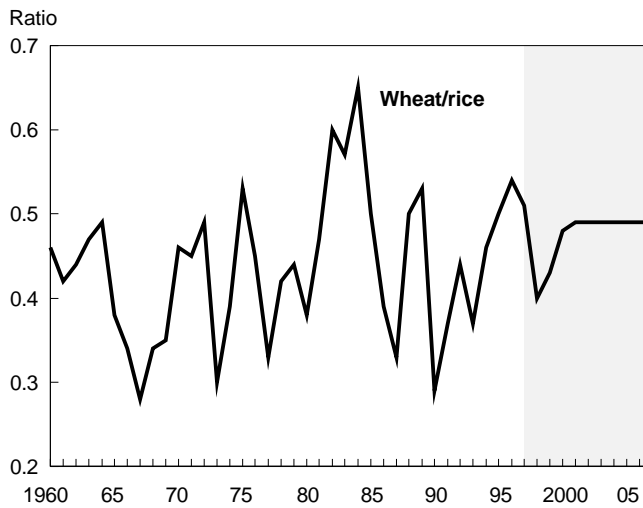


Round Agreement. But, despite significant market access gains in East Asian medium-grain markets under the agreement, total U.S. rice export volume expands only slightly in the baseline. The extent of U.S. gains in medium-grain markets depends on U.S. capacity to expand production and exports on a sustainable basis. California, the primary U.S. producer of high-quality japonica rice, faces increasing environmental restrictions on expanding acreage and yields. Other U.S. growing regions have yet to develop suitable japonica-type varieties for cultivation. The outlook for a widening long-grain export price premium compared with top-quality Asian exports implies that the United States will lose some of its long-grain exports in the more “price-sensitive” markets such as the Middle East. Further, under fixed budget levels, higher domestic prices imply lower program-assisted exports.

Historically, rice trade and prices have exhibited greater volatility than those of other cereals. This volatility stems from the dependence of many large producers and traders, including Burma, India, Indonesia, Thailand, the Philippines, and Vietnam, on rainfall during the Asian monsoon season, and from the fact that only a small share (about 5 percent) of world rice production is traded. These factors will continue to affect the world rice market during the next 10 years, with the potential to create dramatic annual swings in trade and prices that could deviate significantly from the trends projected in this baseline.

Figure 10

**Rice: Historical and projected price ratios**



**Highlights for Major Importers**

Rice import growth will be fueled by the needs of Brazil, China, Indonesia, the Middle East, and Central America and the Caribbean. Iran will continue to face strong demand growth with only little expansion in production. Brazil will also experience faster gains in consumption than production. And while Indonesia is expected to be a steady—and important—net rice importer, its import growth is expected to be small as consumption growth slows and area and yields continue to rise. China is also projected to be a net rice importer. Developing countries, particularly in Asia, will continue to account for the bulk of the gains in import demand.

**Indonesia.** Indonesia’s rice imports are expected to drop in 1999 and 2000 as the country recovers from the 1997 and 1998 El Niño related production difficulties. Imports are projected to flatten and then expand slightly, reaching almost 1.4 million tons by 2007. This would still be below imports of 1.5 million tons in 1997 and 1998. Rice area and yields are projected to continue to expand as the country again moves toward more stable rice supplies. But, area growth will slow over time reflecting the increasingly higher costs of expanding irrigation on areas off the major island of Java. Consumption is projected to exceed production, with consumption growth rising slightly faster, nudging the production shortfall up slowly again after 2001. The current financial and economic troubles will likely limit Indonesia’s long-term imports, a result of higher rice prices, combined with less credit and foreign exchange.

Indonesian rice trade has historically been volatile, with the country ranging from the world's leading importer during the 1970s, to virtual self-sufficiency in the late 1980s, and back to one of the largest importers in recent years. Significant imports are projected to continue, but the outlook is heavily dependent on trade and producer policies, as well as foreign reserves and credit availability. In addition, the progress of expanding rice area and technology off Java will be a major factor determining the level of rice imports.

**China.** China is projected to continue to be an annual net rice importer with total imports of 1-1.2 million tons through 2001, and then slowly rising to 1.5 million by 2007. Much of the growth in imports will likely be in high-priced fragrant rices from Thailand which already account for a major share of China's imports. Rice area is forecast to continue to fall, as demand growth slows, prices for competing crops rise, and nonfarming uses absorb more agricultural land. Southern China's lower-quality indica rice will likely account for much of the area decline as demand declines, and imports of indica from Vietnam or Thailand are an attractive option in this region. At the same time, demand will likely strengthen for higher-quality japonica rice produced in northern China, even as rice land in this region is also pressured by competing uses. Japonica demand is expected to be driven by increased quality consciousness among higher income Chinese consumers and the lucrative Japanese and Korean export markets.

China's future rice trade will be heavily affected by policy and technology factors. The extent to which China becomes a net importer of low-cost Southeast Asian indica rice depends on whether future policies are guided by objectives of self-sufficiency or comparative advantage. Further, because of China's size and the fact that its rice trade is currently a very small portion of production or consumption, small adjustments in China's supply or demand projections can yield globally significant changes in trade.

**Other Asia.** Other Asian countries are projected to account for much of the gains in developing-country rice imports during the next decade. Production growth will be unable to match expanding consumption in the *Philippines*, causing imports to slowly rise after 1999. Imports are projected to reach almost 1.5 million tons by 2007, up from nearly 900,000 in 1999. Imports were around 1 million tons in 1997 and 1998, partly due to El Niño related production difficulties. The

*Philippines* faces low yields and slow yield growth, as well as only marginal potential for area expansion, thus limiting production growth. The Government of the *Philippines* will be very careful not to let retail rice prices rise as happened in 1995 when a poor crop led to shortages and high consumer prices. *Malaysia's* rice imports are projected to rise only slightly over the next decade as continued small increases in rice area are combined with modest yield gains resulting from more efficient production systems and higher yielding varieties. Import gains are also limited as diet diversification leads to declining per capita rice use.

**East Asia.** Under the terms of the Uruguay Round Agreement, minimum access in the high-valued japonica markets of *Japan* and *South Korea* will grow from an initial 565,000 tons in 1995 to almost 1 million tons by 2005, straining the world's japonica supplies. Judging from Japan's 1994 experience, there is very limited consumer acceptance of substitute long-grain rice varieties for food use in these countries, so most of these imports will come from one of the major japonica exporters—the U.S., Australia, or China. No imports beyond the required minimum access amounts are projected for either Japan or South Korea over the next decade.

**Middle East.** An already large regional import demand is projected to grow rapidly, driven by per-capita income growth and stable-to-rising per-capita consumption. Income growth in most Middle Eastern countries is expected to be faster than during the 1980s and early 1990s. *Iran* will account for the bulk of the region's imports, as consumption expands at more than twice the pace of production—a result of negligible yield growth and very small area increases. *Iran's* imports are projected to expand from under 1.2 million tons in 1998 to almost 1.9 million in 2007, making *Iran* the largest single importer that year.

Imports by *Saudi Arabia* will expand as well, but at a slower rate than for *Iran*. *Saudi Arabia*, which does not grow any rice, will remain a major rice importer as consumption is projected to rise faster than population. *Saudi Arabia* is projected to import almost 1.1 million tons in 2007, up from over 800,000 in 1999. Imports by *Iraq* are projected to expand at a rapid pace as well, rising from almost 600,000 tons in 1999 to over 850,000 in 2007, largely driven by strong consumption growth. Although production growth is projected to be impressive in *Iraq*, it will continue to account for only a small share of consumption.

**Central America and the Caribbean.** Consumption growth is expected to outpace the rate of production growth, resulting in steady import gains through 2007. Imports are projected to rise from 935,000 tons in 1998 to almost 1.3 million tons in 2007. Strong population growth and slight expansion in per capita consumption are behind the steady import growth.

**Brazil.** Brazil's imports are projected to show solid expansion, rising from 1.5 million tons in 1998 to over 1.8 million in 2007. Very slow growth in production will be more than offset by consumption gains driven by population growth and an improving economy. A small drop in area and only small yield growth account for the small production gain. Because of high costs of production in Brazil, with MERCOSUR in effect it is more efficient for Brazil to import rice from Argentina and Uruguay than to produce it.

**Sub-Saharan African and Former Soviet Union.** Relatively high prices are expected to dampen growth of commercial sales of rice to developing markets with limited resources, preventing conversion of all of their potential demand into actual imports. Limited import growth by *Sub-Saharan African* countries, as well as the central Asian republics of the *FSU*, stems largely from limited financing for commercial imports. Growth in consumption and imports for these and other low-income countries often depends on availability of credit or food aid, particularly from the United States. Funding for U.S. food and credit guarantees for rice have declined in recent years and now account for a smaller share of U.S. exports than earlier in the decade. Higher rice prices further reduce the actual quantities shipped under these programs. Given the outlook for U.S. rice to sell at an increasing premium in the world market, U.S. market share in these regions could decline further if the availability of U.S. credit and food aid is less than assumed.

**Other Countries.** Total import demand for rice in *Canada*, the *EU*, *Other Western Europe*, and *Eastern Europe* is projected to expand from about 785,000 tons in 1999 to 939,000 tons by 2007, a slow, but steady, annual rate of growth. The EU and Canada will account for the bulk of consumption and expanding use.

### Highlights for Major Foreign Exporters

Exports from many of the major rice producers are projected to increase as demand for rice rises and prices strengthen. Thailand is projected to remain the

largest exporter, with solid export growth expected. Vietnam is projected to remain the second largest exporter, but growth will be much slower than for Thailand. India is expected to slowly expand exports, overtaking Pakistan and ranking third after 2001. Although Burma and Pakistan are expected to expand exports, they are projected to slip slightly in importance as Vietnam and India increase exports at faster rates. Outside of Asia, Argentina is projected to nearly double exports over the decade, while little expansion is projected for Uruguay. Only Australia, China, and the United States are expected to be viable longrun sources of supply of japonica rice for Japan and South Korea to meet their minimum access requirements under the Uruguay Round Agreement.

**Thailand.** Thailand's production growth is projected to exceed expansion in consumption—which is actually expected to decline after 2001—enabling exports to post steady increases. While rice area is projected to show virtually no long-term growth, yields are projected to rise with improved technology, additional inputs, and stronger producer prices following devaluation of the baht. Per capita rice consumption is projected to decline steadily as consumer preferences begin shifting toward higher consumption of other grains, vegetables, and meats. Thai exports are projected to average 4 percent growth annually, more than keeping pace with gains in world trade, maintaining Thailand's share of world trade at just over 30 percent.

**India.** India has been a net exporter of rice most years since the mid-1970s, with exports of more than a million tons on several occasions when domestic and world market conditions permitted. India's annual rice exports are projected at almost 1.9 million tons in 1999, rising to almost 3 million tons, or 12 percent of world exports, by 2007. India currently accounts for about 9 percent of world rice exports. India's exports are expected to remain below the high levels achieved in 1995 and 1996, when abnormally high stocks and a tight world market pushed up exports. Although exports of aromatic basmati rice, which formerly accounted for about half of rice exports, will continue, non-basmati varieties are expected to account for most of India's export gains through 2007.

India's ability to supply the projected level of exports is a key uncertainty in the outlook. First, it is uncertain if government policy will be consistently supportive of an export orientation by maintaining producer incentives and promoting improved stan-

dards and grading. Second, it is uncertain how rice consumption will respond to the relatively high sustained growth in incomes that is projected for India during 1998-2007, and the extent to which the government will use subsidized public distribution to moderate domestic rice prices.

**Burma.** Burma has recently changed its paddy procurement policy to one with a more market-oriented emphasis, likely leading to greater exports in the future. Production growth is expected to outstrip consumption growth, even with rising per capita consumption. In recent years Burma's exports—primarily from the main monsoon crop rice harvest—have been extremely small. This has been partly due to below-market prices for mandated quota sales to the government, which discouraged farmers from planting rice and improving quality. Burma has apparently backed away from its policy begun in 1992/93 of promoting greater exports by encouraging a second monsoon crop and the planting of a summer—or dry season crop. This policy was not successful in increasing exports and likely led to a more volatile domestic market. Farmers prefer to plant pulses, a traditional second crop, which are better suited for dry season growing and are significantly more profitable. It is expected that rice will be exported only after domestic needs are filled. Exports are projected to expand from just over 100,000 tons in 1998 to 500,000 tons by 2007, with most of the gains occurring after 1999. In previous decades, Burma exported over 1.5 million tons of rice annually.

Burma's agricultural policy is not market-oriented and export levels are highly dependent on domestic policy developments. Actual policies could result in rice exports that are significantly higher or lower than projected.

**Pakistan.** The government of Pakistan continues to promote rice production and exports. Rice exports are projected to increase from 1.9 million tons in 1999 to over 2.2 million tons by 2007. Production is projected to rise due to small increases in area and yields. Yield growth will be slowed by the expansion of area of higher-priced, but lower-yielding, basmati rice, as well as a plateauing in the fertilizer response levels of the higher yielding varieties introduced during the green revolution. Expanding exports are the result of modest production expansion and continued declines in per capita consumption.

**Vietnam.** In Vietnam, growth in exportable surpluses is expected to be limited by rising consumption generated by expanding population and income growth, and by a government-imposed export quota, despite projected gains in production. Land availability for further increases in rice cultivation is quite limited and modest yield increases will have to be brought about by increased cropping intensity or higher yielding varieties. Rice exports are projected to increase gradually from almost 3.6 million tons in 1999 to about 4 million by 2007. By 2007, Vietnam is projected to remain the second largest exporter, accounting for 16 percent of world rice trade.

**South America.** Higher production is expected to generate more exports by South American countries, particularly after the year 2000. However, most of these exports are intra-Latin American, going to Brazil and Peru from Uruguay and Argentina. Guyana is the principal exception, exporting rice to Central America, the Caribbean, and the EU.

**Australia.** In Australia, exports of japonica rice are expected to remain virtually constant at about 750,000 tons per year from 1999 through 2007. Virtually no area expansion and only marginal yield growth are projected after 1999. Production already is near capacity because of limited water availability, and yields are high. Domestic demand and per capita consumption are rising, partly a result of the increasing numbers of immigrants from Asia. As a result, Australia likely will be forced to shift exports away from existing markets to respond to the greater demand from Japan.

**China.** China's rice exports are projected to decline over the next decade, dropping from 726,000 tons in 1999 to 500,000 in 2007, a result of consumption growth outstripping production. Despite the poor acceptance of China's japonica rice in Japan in 1993/94, China is still expected to be a small, but important supplier of japonica rice to Japan and South Korea. While China's disadvantages in this market are numerous, including its current inadequate infrastructure for reliable delivery and poor-quality processing, its advantage is the proximity of north China production to the Japanese and South Korean markets. Greater investment would likely improve quality and export prospects in this high-priced market. China also exports indica rice to Southeast Asia, the Middle East, FSU, and Sub-Saharan Africa.

Table 9--Rice Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	147,924	2.46	364,475	17,833	21,044	366,790	322,890	54.2	29,553	49,019
1995	148,049	2.51	371,192	18,237	19,397	369,612	325,267	56.3	32,393	50,175
1996	148,652	2.55	378,429	16,489	18,911	375,441	327,821	55.9	33,884	53,294
1997	147,917	2.58	381,806	19,838	19,975	379,309	332,330	55.9	35,021	55,773
1994-97 ave.	148,136	2.52	373,976	18,099	19,832	372,788	327,077	56.2	32,713	52,065
1999	152,222	2.59	394,920	20,113	20,113	394,166	342,115	56.0	38,648	53,254
2000	152,782	2.61	398,953	20,370	20,370	398,843	348,764	56.4	36,597	53,363
2001	153,094	2.64	403,608	21,052	21,052	403,485	352,156	56.2	37,712	53,486
2002	153,322	2.66	408,205	21,619	21,619	408,037	355,584	56.0	38,728	53,654
2003	153,754	2.69	413,226	22,301	22,301	412,943	359,168	55.8	39,903	53,938
2004	154,291	2.71	417,849	22,883	22,883	417,596	363,737	55.8	39,844	54,191
2005	154,573	2.73	422,087	23,543	23,543	421,917	367,170	55.7	40,532	54,360
2006	154,781	2.75	426,067	24,021	24,021	425,926	369,995	55.4	41,604	54,502
2007	155,074	2.77	430,134	24,635	24,635	430,025	373,053	55.2	42,523	54,611
<b>United States</b>										
1994	1,342	4.95	6,648	223	3,341	3,344	2,434	9.3	0	1,051
1995	1,252	4.50	5,631	236	2,687	3,420	2,532	9.5	0	811
1996	1,133	4.81	5,451	317	2,495	3,217	2,582	9.6	0	867
1997	1,228	4.76	5,843	286	2,580	3,494	2,729	10.1	0	922
1994-97 ave.	1,239	4.76	5,893	266	2,776	3,369	2,569	9.6	0	913
1999	1,234	4.96	6,117	360	2,717	3,735	2,861	10.4	0	841
2000	1,240	4.98	6,174	378	2,726	3,816	2,927	10.6	0	851
2001	1,246	5.00	6,234	397	2,739	3,882	2,996	10.7	0	861
2002	1,252	5.03	6,292	417	2,742	3,957	3,065	10.9	0	871
2003	1,258	5.05	6,353	438	2,753	4,027	3,137	11.0	0	882
2004	1,264	5.08	6,416	460	2,758	4,107	3,213	11.2	0	893
2005	1,270	5.10	6,475	483	2,766	4,181	3,285	11.4	0	904
2006	1,276	5.12	6,535	507	2,772	4,259	3,361	11.6	0	915
2007	1,282	5.15	6,598	532	2,783	4,336	3,440	11.7	0	926
<b>Algeria</b>										
1994	1	1.00	1	26	0	57	57	2.0	0	0
1995	1	1.00	1	25	0	26	26	0.9	0	0
1996	1	1.00	1	40	0	41	41	1.4	0	0
1997	1	1.00	1	35	0	36	36	1.2	0	0
1994-97 ave.	1	1.00	1	32	0	40	40	1.4	0	0
1999	1	1.00	1	46	0	47	47	1.5	0	0
2000	1	1.00	1	48	0	49	49	1.5	0	0
2001	1	1.00	1	48	0	49	49	1.5	0	0
2002	1	1.00	1	50	0	51	51	1.5	0	0
2003	1	1.00	1	53	0	54	54	1.6	0	0
2004	1	1.00	1	53	0	54	54	1.5	0	0
2005	1	1.00	1	55	0	56	56	1.6	0	0
2006	1	1.00	1	57	0	58	58	1.6	0	0
2007	1	1.00	1	59	0	60	60	1.6	0	0
<b>Argentina</b>										
1994	180	3.36	605	2	350	185	185	5.4	0	114
1995	182	3.13	570	3	395	195	195	5.6	0	97
1996	230	3.39	780	2	525	225	200	5.7	0	129
1997	235	3.53	830	2	600	250	200	5.6	0	111
1994-97 ave.	207	3.37	696	2	468	214	195	5.6	0	113
1999	268	3.46	928	0	721	201	201	5.6	0	70
2000	284	3.53	1,003	0	789	209	209	5.7	0	76
2001	302	3.61	1,088	0	868	214	214	5.8	0	82
2002	318	3.68	1,167	0	944	217	217	5.8	0	87
2003	334	3.75	1,253	0	1,026	221	221	5.9	0	94
2004	351	3.82	1,340	0	1,108	226	226	5.9	0	100
2005	366	3.90	1,427	0	1,192	229	229	6.0	0	106
2006	384	3.97	1,524	0	1,287	230	231	5.9	0	112
2007	404	4.06	1,637	0	1,395	234	234	6.0	0	120

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Australia</b>											
1994	128	6.35	813	30	600	275	275	15.2	0	91	
1995	149	4.56	680	35	475	275	275	15.1	0	56	
1996	166	6.06	1,006	35	700	280	280	15.2	0	117	
1997	140	6.07	850	40	650	290	290	15.6	0	67	
1994-97 ave.	146	5.74	837	35	606	280	280	15.3	0	83	
1999	160	6.29	1,009	40	753	297	297	15.6	0	172	
2000	158	6.32	1,000	40	747	300	300	15.7	0	165	
2001	159	6.34	1,010	40	752	293	293	15.2	0	170	
2002	161	6.35	1,021	40	754	300	300	15.5	0	177	
2003	161	6.37	1,022	40	754	308	308	15.7	0	177	
2004	160	6.39	1,024	40	752	311	311	15.7	0	178	
2005	160	6.41	1,027	40	750	313	313	15.8	0	182	
2006	160	6.43	1,030	40	750	319	319	15.9	0	183	
2007	160	6.45	1,029	40	750	321	321	15.9	0	181	
<b>Bangladesh</b>											
1994	9,922	1.70	16,833	813	0	17,780	17,780	147.2	0	150	
1995	9,941	1.78	17,687	1,575	0	18,337	18,326	148.9	0	1,075	
1996	10,030	1.84	18,420	200	0	18,520	18,500	147.6	0	1,175	
1997	10,000	1.85	18,500	100	0	18,700	18,650	146.1	0	1,075	
1994-97 ave.	9,973	1.79	17,860	672	0	18,334	18,314	147.5	0	869	
1999	10,144	1.85	18,773	359	0	19,130	19,130	144.8	0	1,085	
2000	10,185	1.87	19,007	369	0	19,370	19,370	144.2	0	1,091	
2001	10,239	1.88	19,269	380	0	19,639	19,639	143.9	0	1,101	
2002	10,256	1.90	19,459	388	0	19,839	19,839	143.1	0	1,109	
2003	10,270	1.91	19,641	395	0	20,028	20,028	142.2	0	1,117	
2004	10,284	1.93	19,818	402	0	20,212	20,212	141.4	0	1,125	
2005	10,299	1.94	19,998	411	0	20,401	20,401	140.7	0	1,133	
2006	10,313	1.96	20,173	417	0	20,582	20,582	139.9	0	1,141	
2007	10,323	1.97	20,340	425	0	20,757	20,757	139.2	0	1,149	
<b>Brazil</b>											
1994	4,242	1.74	7,402	680	0	7,900	7,900	49.1	0	1,277	
1995	3,880	1.76	6,834	786	0	7,911	7,911	48.6	0	986	
1996	3,570	1.86	6,628	1,000	0	7,950	7,950	48.3	0	664	
1997	3,550	1.83	6,500	1,500	0	8,000	8,000	48.1	0	664	
1994-97 ave.	3,811	1.80	6,841	992	0	7,940	7,940	48.6	0	898	
1999	3,613	1.83	6,606	1,513	0	8,110	8,110	47.8	0	387	
2000	3,555	1.86	6,618	1,524	0	8,144	8,144	47.6	0	385	
2001	3,552	1.89	6,709	1,576	0	8,282	8,282	48.0	0	388	
2002	3,528	1.92	6,768	1,606	0	8,372	8,372	48.1	0	390	
2003	3,529	1.94	6,859	1,652	0	8,508	8,508	48.5	0	393	
2004	3,505	1.97	6,917	1,692	0	8,608	8,608	48.6	0	394	
2005	3,501	2.00	7,000	1,733	0	8,730	8,730	49.0	0	397	
2006	3,498	2.02	7,083	1,762	0	8,843	8,843	49.2	0	399	
2007	3,509	2.05	7,183	1,805	0	8,984	8,984	49.6	0	403	
<b>Canada</b>											
1994	0	0.00	0	214	0	214	214	7.5	0	0	
1995	0	0.00	0	223	0	223	220	7.6	0	0	
1996	0	0.00	0	235	0	235	220	7.6	0	0	
1997	0	0.00	0	225	0	225	225	7.6	0	0	
1994-97 ave.	0	0.00	0	224	0	224	220	7.6	0	0	
1999	0	0.00	0	233	0	233	233	7.8	0	0	
2000	0	0.00	0	237	0	237	237	7.8	0	0	
2001	0	0.00	0	240	0	240	240	7.9	0	0	
2002	0	0.00	0	244	0	244	244	7.9	0	0	
2003	0	0.00	0	248	0	248	248	8.0	0	0	
2004	0	0.00	0	251	0	251	251	8.0	0	0	
2005	0	0.00	0	255	0	255	255	8.1	0	0	
2006	0	0.00	0	258	0	258	258	8.1	0	0	
2007	0	0.00	0	261	0	261	261	8.1	0	0	

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Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Central America &amp; Caribbean</b>											
1994	497	2.01	999	795	0	1,772	1,772	26.1	0	178	
1995	469	2.14	1,006	941	0	1,942	1,942	28.1	0	183	
1996	505	2.15	1,084	881	0	1,948	1,948	27.8	0	200	
1997	485	1.98	960	1,060	0	2,050	2,050	28.8	0	170	
1994-97 ave.	489	2.07	1,012	919	0	1,928	1,928	27.7	0	183	
1999	486	2.09	1,015	980	0	1,989	1,989	27.1	0	194	
2000	490	2.10	1,028	1,010	0	2,034	2,033	27.2	0	199	
2001	494	2.11	1,043	1,048	0	2,086	2,085	27.5	0	204	
2002	496	2.12	1,053	1,081	0	2,130	2,129	27.7	0	208	
2003	499	2.13	1,064	1,119	0	2,178	2,178	27.9	0	213	
2004	501	2.14	1,073	1,157	0	2,225	2,225	28.1	0	217	
2005	503	2.15	1,083	1,195	0	2,273	2,273	28.3	0	222	
2006	505	2.16	1,093	1,231	0	2,320	2,319	28.5	0	227	
2007	507	2.17	1,103	1,274	0	2,372	2,372	28.7	0	232	
<b>Central &amp; Eastern Europe</b>											
1994	26	1.85	48	179	0	227	227	1.9	0	0	
1995	19	2.37	45	136	0	181	181	1.5	0	0	
1996	23	1.83	42	180	0	222	187	1.6	0	0	
1997	25	1.92	48	145	0	193	193	1.6	0	0	
1994-97 ave.	23	1.97	46	160	0	206	197	1.6	0	0	
1999	25	1.80	44	158	0	202	202	1.7	0	0	
2000	25	1.80	44	161	0	205	205	1.7	0	0	
2001	25	1.80	44	163	0	207	207	1.7	0	0	
2002	25	1.80	44	167	0	211	211	1.7	0	0	
2003	25	1.79	44	171	0	215	215	1.8	0	0	
2004	25	1.80	44	175	0	219	219	1.8	0	0	
2005	25	1.79	44	178	0	222	222	1.8	0	0	
2006	25	1.79	44	179	0	223	223	1.8	0	0	
2007	25	1.79	44	184	0	228	227	1.9	0	0	
<b>China</b>											
1994	30,171	4.08	123,151	1,964	32	129,000	98,765	82.4	28,953	21,256	
1995	30,745	4.22	129,650	850	265	130,035	96,926	80.1	31,768	21,456	
1996	31,406	4.35	136,570	500	900	132,070	97,406	79.7	33,259	25,556	
1997	31,400	4.41	138,500	750	1,500	135,000	98,767	80.1	34,402	28,306	
1994-97 ave.	30,931	4.27	131,968	1,016	674	131,526	97,966	80.6	32,096	24,144	
1999	32,227	4.36	140,413	1,147	726	140,120	100,749	80.4	38,001	27,405	
2000	32,299	4.35	140,591	1,176	713	140,901	103,596	82.0	35,932	27,558	
2001	31,859	4.44	141,360	1,231	667	141,757	103,370	81.2	37,032	27,725	
2002	31,528	4.52	142,382	1,267	646	142,799	103,428	80.7	38,031	27,929	
2003	31,330	4.59	143,718	1,322	603	144,169	103,649	80.4	39,189	28,197	
2004	31,364	4.62	144,852	1,372	580	145,403	104,957	80.8	39,112	28,438	
2005	31,106	4.68	145,595	1,432	548	146,303	105,199	80.5	39,782	28,614	
2006	30,807	4.75	146,412	1,484	528	147,193	105,049	79.9	40,836	28,789	
2007	30,528	4.82	147,019	1,549	501	147,925	104,892	79.3	41,735	28,931	
<b>Czech Republic</b>											
1994	0	0.00	0	5	0	5	5	0.5	0	0	
1995	0	0.00	0	11	0	11	11	1.1	0	0	
1996	0	0.00	0	10	0	10	10	1.0	0	0	
1997	0	0.00	0	15	0	15	15	1.5	0	0	
1994-97 ave.	0	0.00	0	10	0	10	10	1.0	0	0	
1999	0	0.00	0	15	0	15	15	1.5	0	0	
2000	0	0.00	0	15	0	15	15	1.5	0	0	
2001	0	0.00	0	15	0	15	15	1.4	0	0	
2002	0	0.00	0	16	0	16	16	1.5	0	0	
2003	0	0.00	0	16	0	16	16	1.6	0	0	
2004	0	0.00	0	16	0	16	16	1.6	0	0	
2005	0	0.00	0	16	0	16	16	1.5	0	0	
2006	0	0.00	0	16	0	16	16	1.5	0	0	
2007	0	0.00	0	16	0	16	16	1.6	0	0	

Continued---



Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Egypt</b>											
1994	575	4.92	2,830	0	150	2,500	2,500	40.1	0	283	
1995	560	4.64	2,600	0	75	2,375	2,375	37.4	0	433	
1996	591	5.06	2,989	0	150	2,739	2,739	42.3	0	533	
1997	630	4.69	2,955	0	75	2,900	2,900	43.9	0	513	
1994-97 ave.	589	4.83	2,844	0	113	2,629	2,629	40.9	0	441	
1999	580	5.23	3,034	0	203	2,848	2,848	41.6	0	427	
2000	574	5.25	3,014	0	105	2,901	2,901	41.7	0	435	
2001	579	5.27	3,049	0	141	2,933	2,933	41.4	0	410	
2002	584	5.29	3,088	0	94	2,986	2,986	41.4	0	418	
2003	592	5.31	3,144	0	106	3,032	3,032	41.3	0	424	
2004	596	5.32	3,175	0	81	3,086	3,086	41.4	0	432	
2005	605	5.34	3,231	0	83	3,141	3,141	41.4	0	440	
2006	615	5.36	3,295	0	98	3,190	3,190	41.4	0	447	
2007	624	5.38	3,355	0	110	3,238	3,238	41.4	0	453	
<b>EU-15</b>											
1994	363	3.59	1,304	500	200	1,525	1,525	4.1	0	280	
1995	357	3.43	1,225	550	197	1,480	1,480	4.0	0	378	
1996	409	3.91	1,600	600	175	2,084	2,084	5.5	0	319	
1997	410	3.89	1,595	504	204	1,880	1,880	5.0	0	334	
1994-97 ave.	385	3.72	1,431	539	194	1,742	1,742	4.6	0	328	
1999	423	3.97	1,676	444	202	1,952	1,952	5.1	0	55	
2000	434	4.00	1,735	446	220	1,982	1,981	5.2	0	35	
2001	440	4.03	1,772	459	235	2,011	2,011	5.3	0	20	
2002	447	4.06	1,815	473	256	2,040	2,040	5.3	0	12	
2003	454	4.10	1,862	486	280	2,070	2,069	5.4	0	10	
2004	462	4.13	1,908	500	304	2,098	2,098	5.5	0	16	
2005	471	4.17	1,963	514	336	2,128	2,127	5.5	0	29	
2006	435	4.20	1,829	553	205	2,157	2,156	5.6	0	49	
2007	438	4.24	1,857	561	205	2,185	2,185	5.7	0	78	
<b>Former Soviet Union</b>											
1994	550	1.81	993	215	91	1,117	1,117	3.8	0	0	
1995	507	1.53	778	459	35	1,112	1,112	3.8	0	90	
1996	484	1.45	703	395	50	1,045	1,045	3.6	0	93	
1997	446	1.74	775	285	50	1,060	950	3.2	0	43	
1994-97 ave.	497	1.64	812	339	57	1,084	1,056	3.6	0	57	
1999	489	1.53	749	227	50	926	926	3.1	0	0	
2000	481	1.54	741	231	50	922	922	3.1	0	0	
2001	476	1.55	739	241	50	930	930	3.1	0	0	
2002	475	1.56	743	245	50	938	938	3.1	0	0	
2003	471	1.58	744	249	50	943	943	3.1	0	0	
2004	468	1.59	743	252	50	945	945	3.1	0	0	
2005	466	1.60	745	256	50	951	951	3.1	0	0	
2006	465	1.61	750	261	50	961	961	3.2	0	0	
2007	463	1.63	754	266	50	970	970	3.2	0	0	
<b>Hong Kong</b>											
1994	0	0.00	0	352	0	352	352	56.9	0	0	
1995	0	0.00	0	349	0	349	349	55.3	0	0	
1996	0	0.00	0	350	0	350	350	54.6	0	0	
1997	0	0.00	0	350	0	350	350	53.7	0	0	
1994-97 ave.	0	0.00	0	350	0	350	350	55.1	0	0	
1999	0	0.00	0	358	0	358	358	53.5	0	0	
2000	0	0.00	0	361	0	361	361	53.4	0	0	
2001	0	0.00	0	365	0	365	365	53.4	0	0	
2002	0	0.00	0	368	0	368	368	53.2	0	0	
2003	0	0.00	0	372	0	372	372	53.2	0	0	
2004	0	0.00	0	375	0	375	375	53.1	0	0	
2005	0	0.00	0	379	0	379	379	53.1	0	0	
2006	0	0.00	0	382	0	382	382	53.1	0	0	
2007	0	0.00	0	385	0	385	385	53.0	0	0	

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Hungary</b>											
1994	10	1.50	15	35	0	50	50	5.0	0	0	
1995	5	2.00	10	20	0	30	30	3.0	0	0	
1996	5	2.00	10	20	0	30	30	3.0	0	0	
1997	5	2.00	10	20	0	30	30	3.0	0	0	
1994-97 ave.	6	1.80	11	24	0	35	35	3.5	0	0	
1999	5	2.00	10	21	0	31	31	3.1	0	0	
2000	5	1.99	10	21	0	31	31	3.2	0	0	
2001	5	1.97	10	21	0	31	31	3.2	0	0	
2002	5	1.96	10	22	0	32	31	3.2	0	0	
2003	5	1.95	10	23	0	33	33	3.4	0	0	
2004	5	1.94	10	23	0	33	33	3.4	0	0	
2005	5	1.93	10	24	0	34	33	3.5	0	0	
2006	5	1.91	10	24	0	34	34	3.5	0	0	
2007	5	1.90	10	25	0	35	34	3.6	0	0	
<b>India</b>											
1994	42,500	1.91	81,160	0	4,000	77,307	68,417	73.1	0	14,083	
1995	42,300	1.88	79,620	0	3,500	78,000	69,030	72.5	0	12,203	
1996	42,700	1.89	80,540	0	1,750	79,250	70,358	72.7	0	11,743	
1997	42,200	1.93	81,500	0	1,750	80,250	71,420	72.7	0	11,243	
1994-97 ave.	42,425	1.90	80,705	0	2,750	78,702	69,806	72.7	0	12,318	
1999	43,277	1.97	85,060	0	1,711	83,312	73,732	72.8	0	10,964	
2000	43,501	2.00	87,046	0	1,826	85,184	75,388	73.4	0	11,000	
2001	43,784	2.03	88,678	0	1,993	86,650	76,685	73.6	0	11,035	
2002	44,014	2.05	90,221	0	2,230	87,955	77,841	73.7	0	11,071	
2003	44,237	2.07	91,740	0	2,338	89,367	79,089	73.8	0	11,106	
2004	44,411	2.10	93,213	0	2,485	90,694	80,264	73.9	0	11,140	
2005	44,604	2.12	94,655	0	2,659	91,961	81,386	74.0	0	11,175	
2006	44,798	2.14	95,935	0	2,849	93,052	82,351	73.9	0	11,209	
2007	45,001	2.16	97,291	0	2,971	94,285	83,443	74.0	0	11,244	
<b>Indonesia</b>											
1994	11,439	2.83	32,333	3,011	0	34,011	34,011	167.2	0	1,858	
1995	11,570	2.87	33,215	1,233	0	33,691	33,691	163.1	0	2,615	
1996	11,100	2.84	31,525	800	0	33,410	33,410	159.3	0	1,530	
1997	11,000	2.82	31,000	3,000	0	34,050	34,050	159.9	0	1,480	
1994-97 ave.	11,277	2.84	32,018	2,011	0	33,791	33,791	162.3	0	1,871	
1999	11,884	2.94	34,905	923	0	35,836	35,836	163.4	0	1,069	
2000	11,949	2.95	35,231	753	0	35,986	35,986	161.8	0	1,067	
2001	12,028	2.95	35,527	835	0	36,358	36,358	161.2	0	1,071	
2002	12,087	2.96	35,814	958	0	36,766	36,766	160.8	0	1,077	
2003	12,153	2.97	36,116	1,081	0	37,191	37,191	160.4	0	1,083	
2004	12,213	2.98	36,421	1,185	0	37,601	37,601	160.1	0	1,088	
2005	12,272	2.99	36,724	1,291	0	38,010	38,010	159.8	0	1,093	
2006	12,327	3.00	37,025	1,332	0	38,353	38,353	159.2	0	1,097	
2007	12,382	3.02	37,333	1,374	0	38,704	38,704	158.7	0	1,100	
<b>Iran</b>											
1994	560	2.68	1,500	1,633	0	2,650	2,650	41.0	0	602	
1995	570	2.72	1,550	1,294	0	2,700	2,700	40.9	0	746	
1996	600	2.67	1,600	1,000	0	2,750	2,750	40.7	0	596	
1997	600	2.67	1,600	1,250	0	2,900	2,900	42.1	0	546	
1994-97 ave.	583	2.68	1,563	1,294	0	2,750	2,750	41.2	0	623	
1999	613	2.69	1,648	1,279	0	2,856	2,856	39.7	0	631	
2000	619	2.69	1,665	1,264	0	2,967	2,964	40.3	0	593	
2001	623	2.69	1,679	1,364	0	3,082	3,078	40.9	0	554	
2002	628	2.70	1,695	1,441	0	3,212	3,206	41.7	0	478	
2003	633	2.70	1,710	1,528	0	3,275	3,262	41.5	0	440	
2004	639	2.70	1,726	1,612	0	3,360	3,349	41.8	0	419	
2005	644	2.70	1,742	1,699	0	3,465	3,454	42.2	0	394	
2006	649	2.71	1,758	1,772	0	3,576	3,560	42.7	0	349	
2007	655	2.71	1,775	1,862	0	3,685	3,669	43.2	0	301	

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Iraq</b>											
1994	150	1.67	250	92	0	342	342	17.0	0	0	
1995	150	1.33	200	236	0	436	436	21.2	0	0	
1996	140	1.43	200	640	0	790	750	35.4	0	50	
1997	140	1.43	200	600	0	800	800	36.7	0	50	
1994-97 ave.	145	1.47	213	392	0	592	582	27.6	0	25	
1999	168	1.52	255	584	0	809	809	35.0	0	73	
2000	171	1.53	261	622	0	879	851	35.8	0	77	
2001	173	1.54	266	652	0	915	886	36.2	0	80	
2002	175	1.55	272	683	0	952	921	36.5	0	83	
2003	178	1.57	278	715	0	990	958	36.9	0	86	
2004	180	1.58	284	749	0	1,029	996	37.3	0	90	
2005	182	1.59	290	783	0	1,070	1,035	37.8	0	93	
2006	185	1.60	296	815	0	1,111	1,075	38.2	0	94	
2007	187	1.62	303	851	0	1,156	1,116	38.6	0	92	
<b>Japan</b>											
1994	2,212	4.93	10,903	9	410	9,350	9,134	73.0	0	1,883	
1995	2,118	4.62	9,781	451	200	9,300	9,300	74.1	0	2,615	
1996	1,977	4.76	9,413	600	300	9,250	9,250	73.6	0	3,078	
1997	1,960	4.59	9,000	600	200	9,200	9,200	73.0	0	3,278	
1994-97 ave.	2,067	4.73	9,774	415	278	9,275	9,221	73.4	0	2,714	
1999	1,811	4.64	8,408	758	200	9,167	9,167	72.4	0	2,903	
2000	1,797	4.67	8,390	758	200	9,148	9,148	72.1	0	2,703	
2001	1,784	4.69	8,372	758	200	9,130	9,130	71.8	0	2,503	
2002	1,769	4.72	8,352	758	200	9,110	9,110	71.5	0	2,303	
2003	1,755	4.75	8,330	758	200	9,088	9,088	71.3	0	2,103	
2004	1,740	4.77	8,306	758	200	9,064	9,064	71.0	0	1,903	
2005	1,724	4.80	8,277	758	200	9,035	9,035	70.7	0	1,703	
2006	1,708	4.83	8,242	758	200	9,000	9,000	70.4	0	1,503	
2007	1,690	4.85	8,204	758	200	8,962	8,962	70.2	0	1,303	
<b>Malaysia</b>											
1994	665	1.99	1,325	317	0	1,700	1,700	87.0	0	275	
1995	663	2.01	1,330	402	0	1,715	1,715	85.9	0	292	
1996	660	2.00	1,320	572	0	1,825	1,825	89.6	0	359	
1997	655	2.01	1,315	625	0	1,950	1,900	91.4	0	349	
1994-97 ave.	661	2.00	1,323	479	0	1,798	1,785	88.5	0	319	
1999	678	2.04	1,385	585	0	1,964	1,964	90.9	0	345	
2000	678	2.06	1,399	595	0	1,990	1,990	90.4	0	350	
2001	682	2.08	1,418	606	0	2,019	2,019	90.0	0	355	
2002	686	2.10	1,441	619	0	2,054	2,054	90.0	0	361	
2003	690	2.12	1,462	631	0	2,087	2,087	89.8	0	367	
2004	694	2.14	1,482	644	0	2,120	2,120	89.7	0	373	
2005	697	2.16	1,503	656	0	2,153	2,153	89.5	0	378	
2006	700	2.18	1,523	668	0	2,185	2,185	89.3	0	384	
2007	702	2.20	1,541	681	0	2,216	2,216	89.1	0	390	
<b>Mexico</b>											
1994	91	2.82	257	245	0	500	500	5.3	0	73	
1995	75	3.11	233	300	0	525	525	5.5	0	81	
1996	80	3.14	251	275	0	525	525	5.4	0	82	
1997	98	3.06	300	250	0	535	535	5.4	0	97	
1994-97 ave.	86	3.03	260	268	0	521	521	5.4	0	83	
1999	88	3.05	269	312	0	578	578	5.6	0	105	
2000	90	3.06	276	320	0	593	593	5.7	0	108	
2001	92	3.08	283	329	0	609	609	5.7	0	111	
2002	94	3.09	290	337	0	624	624	5.8	0	113	
2003	96	3.10	297	346	0	640	640	5.8	0	116	
2004	98	3.12	304	356	0	657	657	5.9	0	119	
2005	100	3.13	312	366	0	675	675	6.0	0	123	
2006	102	3.15	320	377	0	693	693	6.0	0	126	
2007	104	3.16	327	390	0	714	714	6.1	0	130	

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Myanmar (Burma)</b>										
1994	5,517	1.68	9,280	0	645	8,700	8,700	192.8	0	622
1995	5,666	1.74	9,860	0	265	9,600	9,600	208.8	0	617
1996	5,600	1.61	9,000	0	15	9,010	9,000	192.2	0	592
1997	5,650	1.70	9,600	0	100	9,500	9,500	199.3	0	592
1994-97 ave.	5,608	1.68	9,435	0	256	9,203	9,200	198.3	0	606
1999	5,729	1.75	10,019	0	149	9,854	9,854	199.5	0	641
2000	5,780	1.78	10,262	0	193	10,056	10,056	200.1	0	654
2001	5,846	1.80	10,547	0	221	10,310	10,310	201.7	0	670
2002	5,916	1.83	10,845	0	262	10,566	10,566	203.2	0	687
2003	5,981	1.86	11,128	0	316	10,797	10,797	204.2	0	702
2004	6,065	1.89	11,440	0	370	11,054	11,054	205.6	0	718
2005	6,149	1.91	11,748	0	422	11,309	11,309	207.0	0	735
2006	6,229	1.93	12,049	0	466	11,566	11,566	208.3	0	752
2007	6,306	1.96	12,343	0	505	11,822	11,822	209.5	0	768
<b>Pakistan</b>										
1994	2,107	1.64	3,447	0	1,660	2,400	1,800	13.2	600	711
1995	2,162	1.82	3,936	0	1,634	2,500	1,875	13.4	625	513
1996	2,252	1.91	4,307	0	1,750	2,500	1,875	13.0	625	570
1997	2,200	1.95	4,300	0	1,775	2,547	1,856	12.6	619	548
1994-97 ave.	2,180	1.83	3,998	0	1,705	2,487	1,852	13.0	617	586
1999	2,276	1.91	4,348	0	1,920	2,418	1,890	12.1	647	636
2000	2,264	1.90	4,309	0	1,934	2,384	1,915	12.0	665	627
2001	2,256	1.92	4,330	0	1,977	2,359	1,926	11.7	680	621
2002	2,253	1.94	4,365	0	2,015	2,352	1,945	11.5	697	619
2003	2,260	1.95	4,411	0	2,062	2,350	1,962	11.3	714	618
2004	2,270	1.96	4,458	0	2,098	2,358	1,980	11.1	732	620
2005	2,278	1.98	4,502	0	2,134	2,366	1,996	11.0	750	622
2006	2,286	1.99	4,546	0	2,178	2,367	2,013	10.8	768	623
2007	2,295	2.00	4,592	0	2,228	2,365	2,031	10.6	788	622
<b>Philippines</b>										
1994	3,668	1.86	6,809	0	0	7,142	7,142	98.0	0	941
1995	3,924	1.85	7,263	975	0	7,700	7,700	103.4	0	1,479
1996	3,909	1.86	7,265	700	0	7,965	7,965	104.7	0	1,479
1997	3,700	1.89	7,000	1,150	0	8,150	8,150	104.9	0	1,479
1994-97 ave.	3,800	1.86	7,084	706	0	7,739	7,739	102.7	0	1,345
1999	4,030	1.94	7,812	863	0	8,654	8,654	106.9	0	1,558
2000	4,040	1.96	7,918	950	0	8,836	8,836	107.0	0	1,590
2001	4,089	1.97	8,065	1,027	0	9,053	9,053	107.5	0	1,629
2002	4,105	1.99	8,168	1,097	0	9,232	9,232	107.6	0	1,662
2003	4,133	2.00	8,278	1,171	0	9,416	9,416	107.7	0	1,695
2004	4,145	2.02	8,370	1,255	0	9,593	9,593	107.7	0	1,727
2005	4,157	2.04	8,462	1,325	0	9,758	9,758	107.6	0	1,756
2006	4,172	2.05	8,558	1,384	0	9,913	9,913	107.4	0	1,785
2007	4,191	2.07	8,662	1,463	0	10,093	10,093	107.5	0	1,817
<b>Poland</b>										
1994	0	0.00	0	67	0	67	67	1.7	0	0
1995	0	0.00	0	50	0	50	50	1.3	0	0
1996	0	0.00	0	75	0	75	40	1.0	0	0
1997	0	0.00	0	40	0	40	40	1.0	0	0
1994-97 ave.	0	0.00	0	58	0	58	49	1.3	0	0
1999	0	0.00	0	41	0	41	41	1.1	0	0
2000	0	0.00	0	42	0	42	42	1.1	0	0
2001	0	0.00	0	42	0	42	42	1.1	0	0
2002	0	0.00	0	43	0	43	43	1.1	0	0
2003	0	0.00	0	44	0	44	44	1.1	0	0
2004	0	0.00	0	45	0	45	45	1.1	0	0
2005	0	0.00	0	46	0	46	46	1.1	0	0
2006	0	0.00	0	46	0	46	46	1.2	0	0
2007	0	0.00	0	47	0	47	47	1.2	0	0

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Russia</b>										
1994	193	1.76	340	125	91	374	374	2.5	0	0
1995	171	1.75	300	369	35	544	544	3.7	0	90
1996	165	1.53	253	300	50	500	500	3.4	0	93
1997	160	1.34	215	200	50	415	400	2.7	0	43
1994-97 ave.	172	1.61	277	249	57	458	455	3.1	0	57
1999	168	1.59	267	139	50	357	357	2.4	0	0
2000	163	1.60	261	141	50	352	352	2.4	0	0
2001	161	1.61	259	145	50	354	354	2.4	0	0
2002	160	1.63	260	146	50	356	356	2.4	0	0
2003	158	1.65	260	147	50	357	357	2.4	0	0
2004	156	1.65	258	148	50	356	356	2.4	0	0
2005	155	1.67	258	149	50	357	357	2.4	0	0
2006	155	1.68	260	149	50	359	359	2.4	0	0
2007	154	1.70	261	150	50	361	361	2.4	0	0
<b>Saudi Arabia</b>										
1994	0	0.00	0	698	20	675	675	37.0	0	82
1995	0	0.00	0	615	0	615	615	32.7	0	82
1996	0	0.00	0	786	40	736	700	35.9	0	92
1997	0	0.00	0	750	25	725	725	35.9	0	92
1994-97 ave.	0	0.00	0	712	21	688	679	35.4	0	87
1999	0	0.00	0	809	22	784	784	36.2	0	78
2000	0	0.00	0	835	24	811	810	36.2	0	78
2001	0	0.00	0	866	26	839	838	36.3	0	80
2002	0	0.00	0	895	29	865	865	36.4	0	81
2003	0	0.00	0	926	31	894	894	36.5	0	81
2004	0	0.00	0	957	34	923	922	36.5	0	81
2005	0	0.00	0	990	37	953	952	36.6	0	81
2006	0	0.00	0	1,021	41	983	983	36.7	0	78
2007	0	0.00	0	1,055	44	1,015	1,014	36.7	0	75
<b>Slovakia</b>										
1994	0	0.00	0	5	0	5	5	0.9	0	0
1995	0	0.00	0	10	0	10	10	1.9	0	0
1996	0	0.00	0	15	0	15	15	2.8	0	0
1997	0	0.00	0	15	0	15	15	2.8	0	0
1994-97 ave.	0	0.00	0	11	0	11	11	2.1	0	0
1999	0	0.00	0	15	0	15	15	2.8	0	0
2000	0	0.00	0	16	0	16	16	2.8	0	0
2001	0	0.00	0	16	0	16	16	2.9	0	0
2002	0	0.00	0	16	0	16	16	2.9	0	0
2003	0	0.00	0	16	0	16	16	2.9	0	0
2004	0	0.00	0	17	0	17	17	3.0	0	0
2005	0	0.00	0	17	0	17	17	3.1	0	0
2006	0	0.00	0	17	0	17	17	3.0	0	0
2007	0	0.00	0	18	0	18	18	3.2	0	0
<b>South Africa</b>										
1994	0	0.00	0	402	0	400	400	9.6	0	47
1995	0	0.00	0	634	0	500	500	11.8	0	181
1996	0	0.00	0	709	0	600	600	13.8	0	290
1997	0	0.00	0	550	0	659	550	12.4	0	181
1994-97 ave.	0	0.00	0	574	0	540	513	11.9	0	175
1999	0	0.00	0	539	0	544	544	11.7	0	138
2000	0	0.00	0	549	0	545	545	11.5	0	141
2001	0	0.00	0	567	0	563	563	11.7	0	145
2002	0	0.00	0	581	0	577	577	11.7	0	149
2003	0	0.00	0	598	0	594	594	11.8	0	153
2004	0	0.00	0	614	0	610	610	11.9	0	158
2005	0	0.00	0	630	0	626	626	11.9	0	162
2006	0	0.00	0	642	0	638	638	11.9	0	166
2007	0	0.00	0	659	0	655	655	12.0	0	170

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>South Korea</b>											
1994	1,102	4.59	5,060	3	150	5,426	5,300	117.7	0	680	
1995	1,056	4.45	4,694	115	0	5,244	5,244	115.3	0	245	
1996	1,050	5.07	5,320	77	0	5,037	5,037	109.6	0	605	
1997	1,050	5.19	5,450	90	0	5,000	4,988	107.5	0	1,145	
1994-97 ave.	1,065	4.82	5,131	71	38	5,177	5,142	112.5	0	669	
1999	1,033	4.75	4,907	103	0	4,966	4,966	104.9	0	683	
2000	1,015	4.80	4,870	128	0	4,954	4,954	103.6	0	727	
2001	997	4.84	4,830	154	0	4,939	4,939	102.4	0	772	
2002	979	4.89	4,790	180	0	4,924	4,923	101.1	0	818	
2003	961	4.94	4,749	205	0	4,907	4,907	100.0	0	865	
2004	948	4.99	4,733	205	0	4,890	4,890	98.8	0	913	
2005	935	5.04	4,714	205	0	4,871	4,871	97.7	0	961	
2006	922	5.09	4,694	205	0	4,849	4,849	96.5	0	1,011	
2007	908	5.14	4,671	205	0	4,825	4,825	95.4	0	1,062	
<b>Sub-Saharan Africa</b>											
1994	6,797	0.98	6,631	2,357	0	9,072	9,072	16.7	0	584	
1995	6,198	1.08	6,693	2,932	117	9,376	9,376	16.8	0	716	
1996	6,473	1.03	6,688	2,621	1	9,403	9,403	16.4	0	621	
1997	6,461	1.01	6,514	2,782	1	9,347	9,347	15.9	0	569	
1994-97 ave.	6,482	1.02	6,632	2,673	30	9,300	9,300	16.5	0	623	
1999	7,065	1.07	7,538	3,046	0	10,439	10,439	16.8	0	735	
2000	7,219	1.08	7,819	3,049	0	10,843	10,801	16.9	0	761	
2001	7,370	1.10	8,101	2,979	0	11,066	11,003	16.7	0	775	
2002	7,526	1.12	8,397	2,870	0	11,253	11,200	16.6	0	789	
2003	7,675	1.13	8,692	2,786	0	11,464	11,403	16.4	0	803	
2004	7,828	1.15	8,998	2,682	0	11,666	11,609	16.3	0	817	
2005	7,982	1.17	9,313	2,651	0	11,949	11,820	16.1	0	832	
2006	8,140	1.18	9,639	2,553	0	12,177	12,034	16.0	0	847	
2007	8,272	1.20	9,918	2,506	0	12,409	12,254	15.8	0	863	
<b>Taiwan</b>											
1994	366	4.13	1,511	3	117	1,450	1,450	68.2	0	415	
1995	363	4.18	1,517	5	189	1,450	1,450	67.5	0	298	
1996	348	4.08	1,420	5	50	1,450	1,450	67.0	0	223	
1997	365	3.95	1,440	10	50	1,450	1,450	66.4	0	173	
1994-97 ave.	361	4.08	1,472	6	102	1,450	1,450	67.3	0	277	
1999	364	3.93	1,433	8	9	1,418	1,418	63.8	0	198	
2000	364	3.93	1,430	8	1	1,409	1,409	62.9	0	226	
2001	364	3.93	1,427	8	5	1,403	1,403	62.1	0	253	
2002	363	3.92	1,424	8	3	1,396	1,396	61.3	0	286	
2003	363	3.92	1,422	8	2	1,386	1,386	60.4	0	328	
2004	363	3.91	1,418	8	31	1,378	1,378	59.6	0	345	
2005	362	3.90	1,414	8	49	1,371	1,371	58.8	0	347	
2006	362	3.90	1,409	8	53	1,365	1,365	58.1	0	346	
2007	361	3.88	1,402	8	55	1,355	1,355	57.3	0	346	
<b>Thailand</b>											
1994	9,196	1.54	14,124	0	5,931	8,400	8,400	144.2	0	203	
1995	9,032	1.59	14,388	0	5,280	8,600	8,600	146.1	0	711	
1996	9,175	1.49	13,700	0	5,275	8,536	8,536	143.6	0	600	
1997	9,200	1.55	14,300	0	5,800	8,550	8,550	142.4	0	550	
1994-97 ave.	9,151	1.54	14,128	0	5,572	8,522	8,522	144.1	0	516	
1999	9,298	1.55	14,423	0	6,020	8,399	8,399	137.3	0	774	
2000	9,309	1.57	14,634	0	6,268	8,369	8,369	135.6	0	771	
2001	9,307	1.59	14,823	0	6,541	8,289	8,289	133.2	0	764	
2002	9,292	1.61	14,973	0	6,713	8,263	8,263	131.6	0	761	
2003	9,284	1.63	15,145	0	6,917	8,230	8,230	130.0	0	759	
2004	9,267	1.65	15,301	0	7,105	8,199	8,199	128.5	0	756	
2005	9,247	1.67	15,456	0	7,303	8,157	8,157	126.9	0	752	
2006	9,230	1.69	15,615	0	7,504	8,115	8,115	125.3	0	748	
2007	9,213	1.71	15,777	0	7,718	8,064	8,064	123.6	0	743	

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Turkey</b>										
1994	46	3.26	150	450	2	495	495	8.1	0	207
1995	70	3.21	225	350	0	525	525	8.5	0	257
1996	90	2.89	260	250	0	550	550	8.8	0	217
1997	90	3.22	290	250	0	575	575	9.0	0	182
1994-97 ave.	74	3.13	231	325	1	536	536	8.6	0	216
1999	91	3.11	282	325	0	601	601	9.1	0	167
2000	93	3.17	293	331	0	622	622	9.3	0	169
2001	94	3.23	303	341	0	643	643	9.5	0	171
2002	95	3.30	315	349	0	664	664	9.7	0	171
2003	97	3.36	326	359	0	685	685	9.8	0	171
2004	99	3.43	338	368	0	706	706	10.0	0	171
2005	100	3.50	351	378	0	739	739	10.4	0	161
2006	102	3.57	364	385	0	759	759	10.5	0	150
2007	104	3.64	378	394	0	787	787	10.8	0	136
<b>Ukraine</b>										
1994	23	2.22	51	54	0	105	105	2.1	0	0
1995	22	2.36	52	40	0	92	92	1.8	0	0
1996	23	2.30	53	50	0	103	103	2.0	0	0
1997	23	2.30	53	40	0	93	93	1.8	0	0
1994-97 ave.	23	2.30	52	46	0	98	98	1.9	0	0
1999	26	2.31	60	39	0	99	99	2.0	0	0
2000	25	2.31	58	39	0	97	97	1.9	0	0
2001	25	2.32	58	40	0	98	97	1.9	0	0
2002	25	2.32	58	40	0	98	98	1.9	0	0
2003	25	2.33	58	39	0	97	97	1.9	0	0
2004	25	2.33	57	38	0	95	96	1.9	0	0
2005	25	2.33	57	37	0	94	94	1.9	0	0
2006	25	2.34	58	39	0	97	98	1.9	0	0
2007	25	2.35	58	39	0	97	97	1.9	0	0
<b>Vietnam</b>										
1994	6,803	2.39	16,246	10	2,308	13,948	13,948	191.6	0	0
1995	7,124	2.48	17,683	0	3,040	14,643	14,643	197.9	0	0
1996	7,050	2.55	18,000	0	3,500	14,500	14,500	193.0	0	0
1997	7,100	2.54	18,000	0	3,500	14,500	14,500	190.2	0	0
1994-97 ave.	7,019	2.49	17,482	3	3,087	14,398	14,398	193.2	0	0
1999	7,156	2.61	18,666	0	3,571	15,095	15,095	192.7	0	0
2000	7,138	2.64	18,858	0	3,431	15,427	15,427	194.4	0	0
2001	7,183	2.67	19,192	0	3,498	15,694	15,694	195.2	0	0
2002	7,199	2.70	19,450	0	3,542	15,908	15,908	195.4	0	0
2003	7,239	2.73	19,761	0	3,727	16,034	16,034	194.5	0	0
2004	7,239	2.76	19,964	0	3,792	16,172	16,172	193.8	0	0
2005	7,235	2.78	20,146	0	3,878	16,268	16,268	192.6	0	0
2006	7,232	2.81	20,325	0	3,904	16,421	16,421	192.1	0	0
2007	7,259	2.84	20,581	0	3,986	16,595	16,595	191.8	0	0
<b>Other Asia &amp; Oceania</b>										
1994	5,311	1.52	8,074	1,318	85	9,413	9,413	81.9	0	313
1995	5,376	1.57	8,438	1,114	0	9,663	9,663	81.9	0	202
1996	5,293	1.58	8,344	1,322	100	9,544	9,544	78.9	0	224
1997	5,353	1.61	8,604	1,155	50	9,759	9,759	78.7	0	224
1994-97 ave.	5,333	1.57	8,365	1,227	59	9,595	9,595	80.3	0	241
1999	5,343	1.63	8,685	1,232	50	9,862	9,862	76.0	0	209
2000	5,351	1.64	8,771	1,279	50	9,997	9,997	75.6	0	212
2001	5,362	1.65	8,847	1,340	50	10,134	10,134	75.1	0	214
2002	5,371	1.66	8,922	1,388	49	10,258	10,258	74.6	0	217
2003	5,383	1.67	8,998	1,449	49	10,395	10,395	74.1	0	220
2004	5,393	1.68	9,069	1,492	49	10,510	10,510	73.6	0	222
2005	5,402	1.69	9,136	1,530	49	10,615	10,615	72.9	0	225
2006	5,412	1.70	9,204	1,553	48	10,707	10,707	72.2	0	227
2007	5,424	1.71	9,271	1,589	48	10,810	10,810	71.6	0	229

Continued---

Table 9--Rice Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Other Central &amp; Eastern Europe</b>										
1994	16	2.06	33	67	0	100	100	1.8	0	0
1995	14	2.50	35	45	0	80	80	1.4	0	0
1996	18	1.78	32	60	0	92	92	1.7	0	0
1997	20	1.90	38	55	0	93	93	1.7	0	0
1994-97 ave.	17	2.03	35	57	0	91	91	1.6	0	0
1999	20	1.75	34	66	0	100	100	1.8	0	0
2000	20	1.75	34	67	0	101	101	1.8	0	0
2001	20	1.75	34	69	0	103	103	1.8	0	0
2002	20	1.75	34	70	0	104	104	1.9	0	0
2003	20	1.75	34	72	0	106	106	1.9	0	0
2004	20	1.76	34	74	0	108	108	1.9	0	0
2005	20	1.76	34	75	0	109	110	1.9	0	0
2006	20	1.76	34	76	0	110	110	2.0	0	0
2007	20	1.76	34	78	0	112	112	2.0	0	0
<b>Other Former Soviet Union</b>										
1994	334	1.80	602	36	0	638	638	6.8	0	0
1995	314	1.36	426	50	0	476	476	5.1	0	0
1996	296	1.34	397	45	0	442	442	4.7	0	0
1997	263	1.93	507	45	0	552	457	4.8	0	0
1994-97 ave.	302	1.60	483	44	0	527	503	5.4	0	0
1999	295	1.43	422	49	0	470	470	4.9	0	0
2000	293	1.44	422	51	0	473	473	4.8	0	0
2001	291	1.45	423	56	0	479	479	4.9	0	0
2002	290	1.46	425	59	0	484	484	4.9	0	0
2003	289	1.48	426	63	0	489	489	4.9	0	0
2004	287	1.49	428	66	0	494	494	4.9	0	0
2005	286	1.50	430	70	0	500	500	4.9	0	0
2006	286	1.51	432	73	0	505	505	4.9	0	0
2007	285	1.52	435	77	0	512	512	4.9	0	0
<b>Other N. Africa &amp; Middle East</b>										
1994	8	5.00	40	687	0	734	734	7.9	0	51
1995	6	3.33	20	733	0	775	772	8.1	0	29
1996	8	5.00	40	787	0	817	747	7.6	0	39
1997	8	5.00	40	717	0	762	752	7.4	0	34
1994-97 ave.	8	4.67	35	731	0	772	752	7.7	0	38
1999	6	4.45	29	748	0	776	776	7.3	0	30
2000	6	4.44	28	765	0	793	793	7.2	0	31
2001	6	4.45	28	785	0	813	813	7.2	0	32
2002	6	4.45	28	803	0	831	831	7.2	0	32
2003	6	4.44	28	822	0	850	850	7.2	0	33
2004	6	4.44	28	842	0	870	870	7.2	0	34
2005	6	4.45	28	860	0	888	888	7.2	0	35
2006	6	4.45	28	878	0	906	906	7.2	0	35
2007	6	4.45	28	897	0	924	924	7.1	0	36
<b>Other South America</b>										
1994	1,389	2.70	3,748	575	952	3,469	3,469	28.0	0	697
1995	1,564	2.45	3,839	645	1,043	3,421	3,421	27.1	0	717
1996	1,599	2.48	3,962	576	1,135	3,477	3,477	27.1	0	643
1997	1,537	2.60	3,996	740	1,065	3,566	3,566	27.3	0	748
1994-97 ave.	1,522	2.55	3,886	634	1,049	3,483	3,483	27.4	0	701
1999	1,661	2.70	4,484	566	1,089	3,951	3,951	29.4	0	672
2000	1,674	2.71	4,536	600	1,093	4,038	4,038	29.5	0	678
2001	1,684	2.71	4,572	655	1,089	4,132	4,132	29.8	0	683
2002	1,694	2.72	4,611	692	1,090	4,209	4,209	29.9	0	688
2003	1,706	2.73	4,650	742	1,087	4,300	4,300	30.1	0	692
2004	1,715	2.73	4,685	780	1,086	4,376	4,376	30.3	0	696
2005	1,724	2.74	4,725	819	1,087	4,454	4,454	30.4	0	699
2006	1,736	2.75	4,768	860	1,088	4,537	4,537	30.6	0	702
2007	1,751	2.75	4,817	907	1,086	4,635	4,635	30.8	0	706



# Coarse Grains

Reversing a decline that began in the early 1980s, world import demand for coarse grains is projected to strengthen, with annual growth averaging 3.4 percent from 1998 to 2007. Global coarse grain trade is projected to exceed the 1980/81 record of 108 million tons in 2001 and reach over 132 million tons by 2007. Strong economic growth is expected to fuel higher coarse grain imports by China, North Africa, and Latin America. East Asia's imports are projected to remain mostly steady despite macroeconomic problems, as

these countries tend to maintain domestic livestock and poultry production, while slowing meat imports. Taiwan's feed imports are expected to begin recovering by 2000, as hog numbers start to rebound and poultry production continues to expand. Southeast Asian feed grain imports are expected to be slowed by the effects of the financial crisis, but show strong longer term growth. The FSU, one of the world's largest importers during the 1980s, is expected to be a small net importer of coarse grains late in the baseline,

Figure 11  
**Coarse grains: Historical and projected world area and yield**

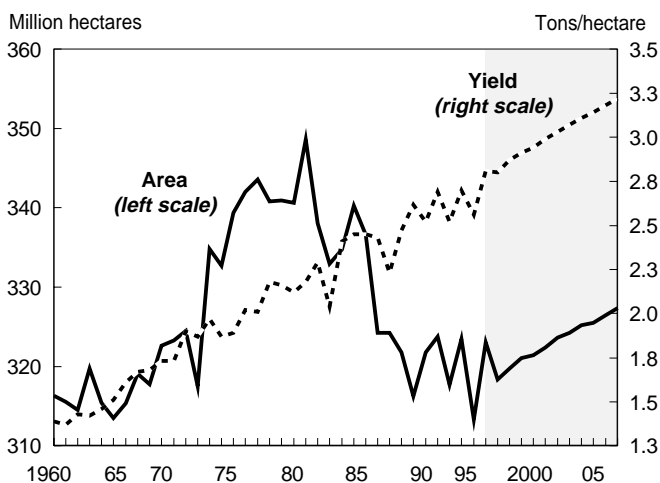
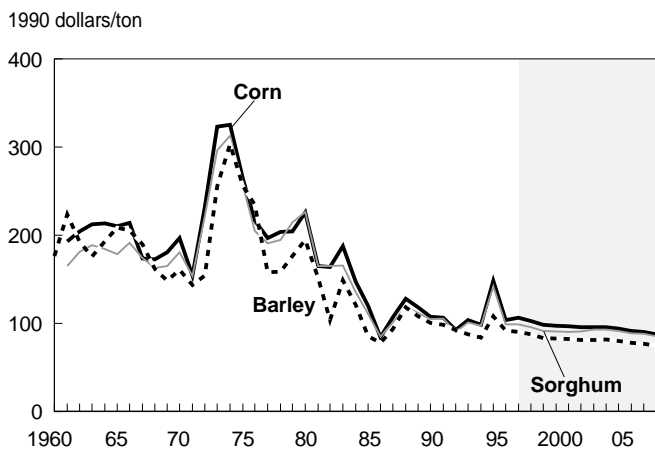


Figure 12  
**Coarse grains: Historical and projected real prices**



Corn=U.S. #2, fob gulf; Sorghum=U.S. #2, fob gulf  
Barley=U.S., fob Duluth

Figure 13  
**Coarse grains: Historical and projected world supply and use**

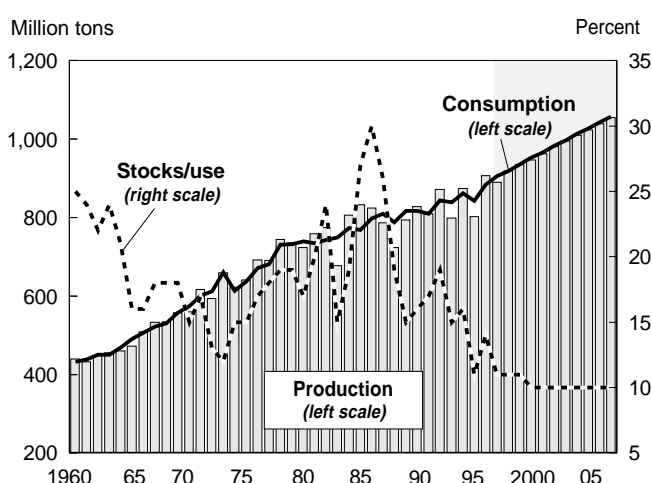


Figure 14  
**Coarse grains: Historical and projected price ratios**

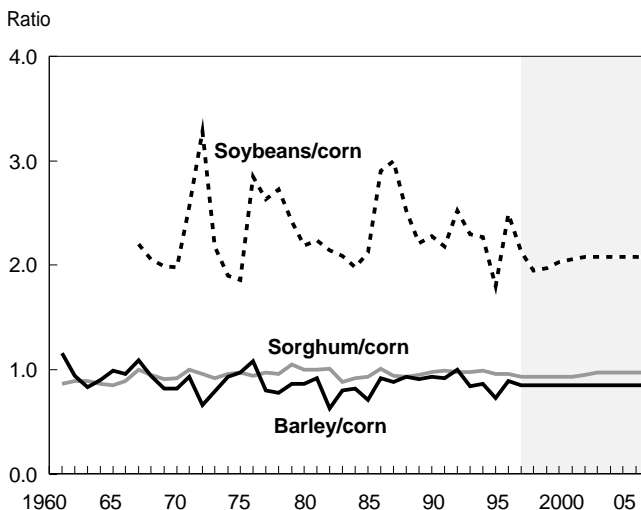


Figure 15

**Corn: Historical and projected world area and yield**

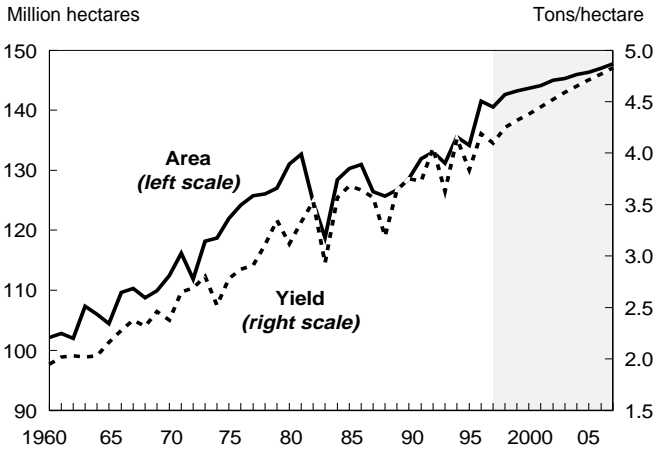


Figure 16

**Barley: Historical and projected world area and yield**

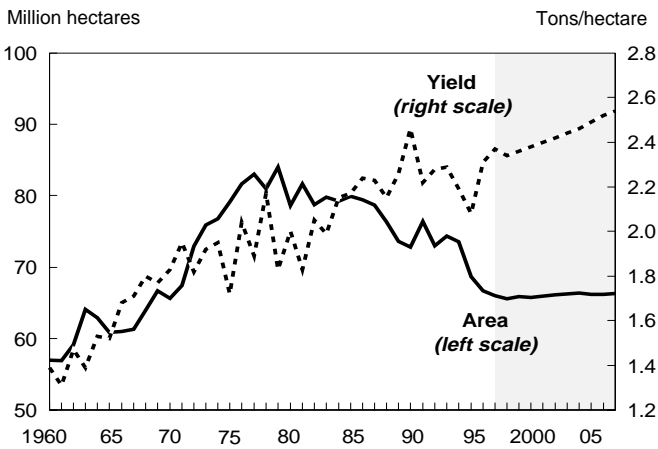


Figure 17

**Sorghum: Historical and projected world area and yield**

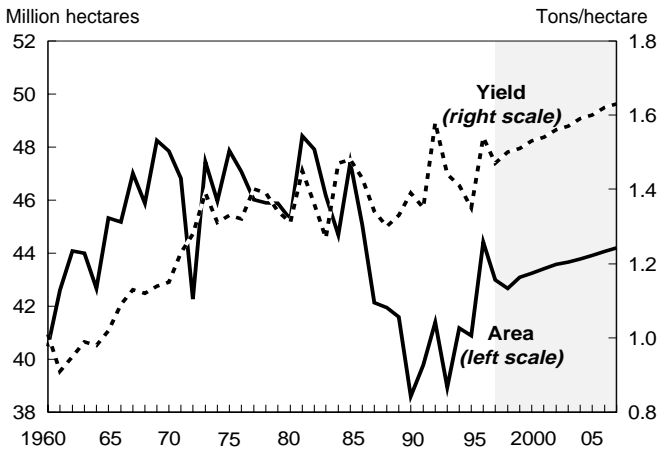


Figure 18

**Corn: Historical and projected world supply and use**

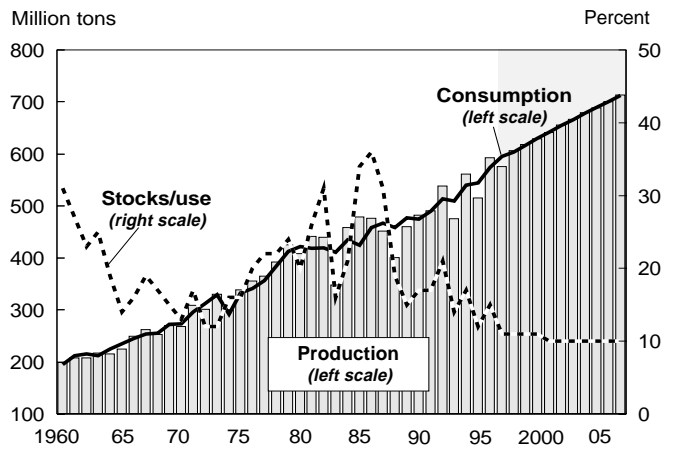


Figure 19

**Barley: Historical and projected world supply and use**

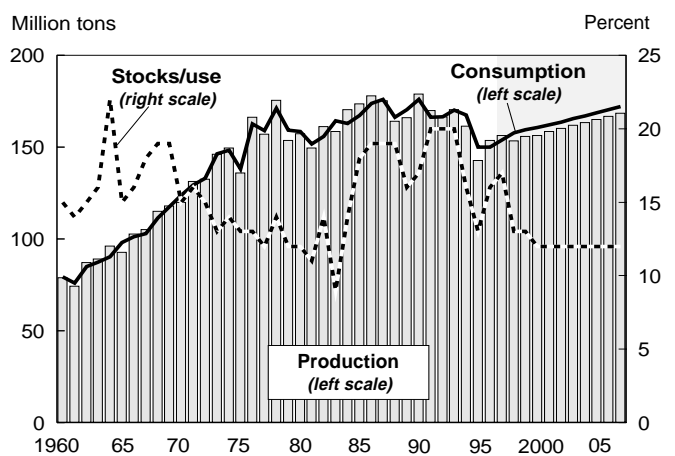


Figure 20

**Sorghum: Historical and projected world supply and use**

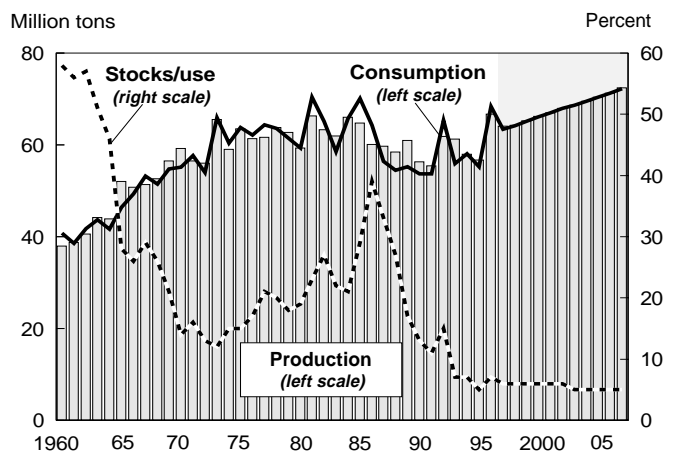


Table 10--Coarse grain trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	62,425	63,004	51,523	45,597	55,637	64,673	68,878	71,678	74,604	77,373	80,177	82,340	84,487	86,538
Argentina	6,099	8,355	12,298	13,200	9,988	9,684	9,985	10,273	10,752	11,099	11,732	12,340	12,699	13,554
Australia	1,277	4,222	4,410	3,160	3,267	2,751	2,860	2,998	3,163	3,279	3,429	3,406	3,478	3,743
Canada	4,730	4,164	5,425	4,850	4,792	4,355	4,681	4,838	4,981	5,176	5,361	5,276	5,586	5,738
China	1,601	255	3,997	5,025	2,720	1,214	1,249	1,236	1,224	1,191	1,170	1,143	1,130	1,098
Central/East Europe	1,237	2,759	1,472	3,400	2,217	3,212	2,997	2,987	2,993	2,979	2,979	3,004	3,548	4,172
Czech Republic	160	25	0	0	46	11	4	0	0	0	0	0	0	0
Slovakia	99	47	45	45	59	42	10	16	27	10	25	7	33	7
Hungary	425	571	100	1,350	612	571	397	420	394	354	348	322	493	742
Poland	16	13	5	5	10	25	26	25	25	25	25	25	25	25
Other Central/East Europe	537	2,103	1,322	2,000	1,491	2,563	2,560	2,526	2,547	2,590	2,581	2,650	2,997	3,398
European Union-15 1/	8,750	5,050	6,350	8,200	7,088	9,528	8,959	8,544	8,484	8,959	8,959	10,161	10,063	10,418
Former Soviet Union 2/	2,784	1,536	1,549	3,075	2,236	2,662	2,594	2,868	2,900	2,803	2,901	2,913	3,004	2,945
Russia	1,831	463	349	1,800	1,111	847	628	720	702	541	541	397	392	250
Ukraine	265	198	225	725	353	1,290	1,366	1,498	1,548	1,607	1,660	1,766	1,862	1,945
Other Former Soviet Union	688	875	975	550	772	525	600	650	650	655	700	750	750	750
South Africa	176	2,169	1,400	400	1,036	376	340	339	338	338	338	338	338	338
Sub-Saharan Africa	551	811	213	100	419	575	572	564	566	580	562	569	595	597
Thailand	160	97	50	75	96	0	0	0	0	0	0	0	0	0
Turkey	1,027	161	505	805	625	437	437	441	446	450	455	459	464	556
Other	1,695	1,344	1,338	1,440	1,454	1,062	1,072	1,096	1,108	1,121	1,126	1,138	1,151	1,162
<b>Total</b>	<b>92,512</b>	<b>93,927</b>	<b>90,530</b>	<b>89,327</b>	<b>91,574</b>	<b>100,529</b>	<b>104,624</b>	<b>107,862</b>	<b>111,559</b>	<b>115,348</b>	<b>119,189</b>	<b>123,087</b>	<b>126,543</b>	<b>130,859</b>
<b>Importers</b>														
United States	3,394	2,790	2,930	2,940	3,014	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177
Algeria	1,421	489	1,035	1,300	1,061	1,413	1,411	1,409	1,412	1,417	1,421	1,426	1,428	1,435
Australia	185	30	3	10	57	10	10	10	10	10	10	10	10	10
Brazil	1,483	751	550	975	940	1,812	1,953	2,083	2,123	2,271	2,277	2,299	2,311	2,312
Canada	931	871	919	1,010	933	750	826	874	948	1,003	1,077	1,104	1,118	1,152
C. America & Caribbean	2,105	2,012	2,625	2,720	2,366	2,696	2,741	2,774	2,838	2,889	2,969	3,013	3,049	3,107
China	6,366	2,962	2,175	2,300	3,451	4,907	6,286	7,079	8,099	9,424	10,856	12,582	14,378	16,774
Central/East Europe	1,324	719	1,696	845	1,146	1,120	1,131	1,106	1,283	1,369	1,504	1,621	1,522	1,555
Czech Republic	32	80	550	60	181	246	247	255	282	385	415	619	525	516
Slovakia	2	1	98	25	32	34	14	5	29	33	59	58	42	37
Hungary	59	35	72	20	47	0	26	4	112	67	113	0	0	0
Poland	957	501	675	600	683	666	674	678	699	723	758	786	800	839
Other Central/East Europe	274	102	301	140	204	174	170	164	161	161	159	158	155	163
European Union-15 1/	3,920	3,825	3,225	2,799	3,442	2,516	2,524	2,558	2,547	2,571	2,537	2,550	2,550	2,550
Egypt	2,613	2,245	3,183	3,275	2,829	3,318	3,564	3,683	3,795	3,947	4,055	4,210	4,361	4,518
Former Soviet Union 2/	2,819	2,084	1,880	1,885	2,167	2,305	2,664	2,825	3,009	3,169	3,480	3,786	3,945	4,146
Russia	809	860	600	550	705	391	485	528	585	621	716	797	902	981
Ukraine	148	26	25	10	52	200	273	350	425	485	555	650	700	750
Other Former Soviet Union	1,862	1,198	1,255	1,325	1,410	1,714	1,906	1,947	1,999	2,063	2,209	2,339	2,343	2,415
Indonesia	1,738	774	944	600	1,014	1,246	1,598	1,865	1,961	2,067	2,160	2,254	2,348	2,451
Iran	1,476	1,619	2,046	2,300	1,860	1,721	1,711	1,706	1,713	1,740	1,751	1,778	1,775	1,793
Iraq	1	2	0	200	51	455	496	511	555	620	676	711	720	794
Japan	21,101	20,279	20,525	20,840	20,686	20,745	20,759	20,750	20,620	20,487	20,329	20,156	19,992	19,776
Malaysia	2,415	2,343	2,400	2,200	2,340	2,698	2,806	3,040	3,140	3,248	3,364	3,484	3,607	3,735
Mexico	5,832	8,461	5,373	6,410	6,519	8,353	8,847	9,336	9,863	10,288	10,676	11,054	11,485	11,826
Morocco	762	529	711	750	688	628	637	653	662	679	683	696	694	715
Other N. Africa & M. East	3,986	3,463	5,307	4,825	4,395	4,591	4,740	4,864	5,014	5,169	5,326	5,498	5,666	5,843
Other S. America	4,502	4,461	4,762	5,086	4,703	5,480	5,566	5,625	5,696	5,820	5,931	5,985	6,009	6,050
Pakistan	0	0	0	0	0	31	61	93	98	108	127	150	175	202
Philippines	136	516	445	250	337	752	789	841	958	1,078	1,210	1,300	1,367	1,434
Saudi Arabia	3,934	3,889	6,873	5,800	5,124	6,844	6,879	7,098	7,360	7,573	7,933	8,284	8,661	9,028
South Africa	633	188	250	850	480	266	221	207	222	253	292	319	262	214
South Korea	8,966	10,139	8,778	7,800	8,921	10,362	10,736	10,953	11,175	11,381	11,583	11,771	11,948	12,128
Sub-Saharan Africa	2,168	787	2,049	2,067	1,768	1,184	1,181	1,105	1,095	1,098	1,048	974	930	900
Taiwan	6,622	6,033	6,012	5,200	5,967	5,136	5,312	5,621	5,926	6,091	6,264	6,412	6,591	6,749
Thailand	256	264	305	500	331	148	46	27	13	78	104	189	191	179
Tunisia	575	450	577	601	551	569	574	579	583	589	594	600	605	612
Turkey	516	799	1,014	763	773	927	996	1,077	1,334	1,442	1,511	1,467	1,486	1,550
Other	4,625	5,095	4,975	4,767	4,866	4,369	4,382	4,333	4,334	4,292	4,264	4,227	4,182	4,144
<b>Total</b>	<b>96,805</b>	<b>88,869</b>	<b>93,567</b>	<b>91,868</b>	<b>92,777</b>	<b>100,529</b>	<b>104,624</b>	<b>107,862</b>	<b>111,559</b>	<b>115,348</b>	<b>119,189</b>	<b>123,087</b>	<b>126,543</b>	<b>130,859</b>
Exports-Imports	-4,293	5,058	-3,037	-2,541	-1,203	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Table 11--Corn trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
1,000 tons														
<b>Exporters</b>														
United States	55,311	56,589	45,597	38,745	49,061	57,143	60,970	63,510	66,047	68,575	71,127	73,024	74,926	76,836
Argentina	5,782	7,494	11,250	11,700	9,057	8,913	9,187	9,451	9,928	10,291	10,928	11,558	11,924	12,770
Canada	346	450	300	300	349	319	323	326	329	332	336	339	343	346
China	1,413	227	3,892	5,000	2,633	1,176	1,209	1,198	1,187	1,156	1,135	1,110	1,098	1,068
Central/East Europe	744	2,275	1,397	2,925	1,835	2,420	2,119	2,028	2,029	2,043	2,034	2,176	2,714	3,373
Czech Republic	13	0	0	0	3	0	0	0	0	0	0	0	0	0
Slovakia	14	25	25	25	22	34	2	0	0	0	0	0	0	0
Hungary	370	500	100	1,200	543	205	0	0	0	0	0	54	241	497
Poland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Central/East Europe	347	1,750	1,272	1,700	1,267	2,181	2,117	2,028	2,029	2,043	2,034	2,122	2,473	2,876
European Union-15 1/	250	250	200	400	275	250	250	250	250	250	250	250	250	250
Former Soviet Union 2/	41	255	250	650	299	741	656	742	744	811	812	902	970	1,043
Russia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	0	50	0	400	113	541	456	492	494	561	562	602	670	743
Other Former Soviet Union	41	205	250	250	187	200	200	250	250	250	250	300	300	300
South Africa	125	2,000	1,400	400	981	375	338	338	338	338	338	338	338	338
Sub-Saharan Africa	316	725	208	50	325	526	526	526	526	526	526	526	526	526
Thailand	160	97	50	75	96	0	0	0	0	0	0	0	0	0
Other	736	558	523	795	653	319	321	336	342	342	341	343	344	345
<b>Total</b>	<b>65,224</b>	<b>70,920</b>	<b>65,067</b>	<b>61,040</b>	<b>65,563</b>	<b>72,182</b>	<b>75,899</b>	<b>78,705</b>	<b>81,720</b>	<b>84,664</b>	<b>87,827</b>	<b>90,566</b>	<b>93,433</b>	<b>96,895</b>
<b>Importers</b>														
United States	243	419	337	254	313	254	254	254	254	254	254	254	254	254
Algeria	1,100	488	910	1,000	875	1,107	1,109	1,111	1,115	1,118	1,122	1,125	1,129	1,133
Brazil	1,407	400	350	750	727	1,520	1,652	1,775	1,811	1,948	1,949	1,958	1,965	1,954
Canada	925	855	897	1,000	919	739	815	863	937	992	1,066	1,093	1,107	1,141
C. America & Caribbean	2,079	1,982	2,590	2,690	2,335	2,696	2,741	2,774	2,838	2,889	2,969	3,013	3,049	3,107
China	4,287	1,476	75	250	1,522	2,927	4,346	5,083	6,046	7,252	8,625	10,222	11,944	14,201
Central/East Europe	363	351	361	395	368	437	487	480	632	600	694	578	567	566
Czech Republic	25	2	25	35	22	37	48	53	62	63	74	73	72	71
Slovakia	0	1	1	25	7	0	5	29	33	59	52	42	42	37
Hungary	10	10	10	10	10	0	26	4	112	67	113	0	0	0
Poland	250	282	200	300	258	302	316	321	332	340	352	357	357	362
Other Central/East Europe	78	56	125	25	71	98	97	97	97	97	96	96	96	96
European Union-15 1/	3,400	2,700	2,600	2,200	2,725	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Egypt	2,589	2,225	3,082	3,200	2,774	3,294	3,543	3,662	3,775	3,927	4,033	4,188	4,335	4,495
Former Soviet Union 2/	609	440	635	615	575	648	844	1,032	1,224	1,326	1,530	1,602	1,697	1,790
Russia	218	100	200	200	180	241	335	378	446	479	555	579	613	647
Ukraine	25	0	0	0	6	50	50	100	150	200	250	250	300	350
Other Former Soviet Union	366	340	435	415	389	357	459	554	628	647	725	773	784	793
Indonesia	1,738	774	944	600	1,014	1,246	1,598	1,865	1,961	2,067	2,160	2,254	2,348	2,451
Iran	1,092	1,281	1,550	1,500	1,356	1,345	1,351	1,357	1,364	1,372	1,380	1,389	1,396	1,401
Iraq	0	0	0	200	50	247	284	291	307	336	366	391	397	444
Japan	16,481	15,976	15,950	15,900	16,077	15,901	15,916	15,933	15,817	15,711	15,606	15,470	15,334	15,188
Malaysia	2,415	2,343	2,400	2,200	2,340	2,698	2,806	3,040	3,140	3,248	3,364	3,484	3,607	3,735
Mexico	3,166	6,379	3,141	3,700	4,097	5,032	5,191	5,370	5,595	5,793	5,971	6,113	6,289	6,446
Morocco	543	372	650	600	541	544	551	567	573	578	583	587	591	600
Other N. Africa & M. East	2,109	1,939	2,492	2,150	2,173	2,282	2,400	2,501	2,614	2,714	2,830	2,933	3,049	3,161
Other S. America	4,079	3,939	4,368	4,705	4,273	5,086	5,175	5,231	5,291	5,404	5,506	5,557	5,582	5,616
Pakistan	0	0	0	0	0	31	61	93	98	108	127	150	175	202
Philippines	136	516	445	250	337	752	789	841	958	1,078	1,210	1,300	1,367	1,434
Saudi Arabia	932	923	1,273	1,300	1,107	1,433	1,483	1,543	1,611	1,689	1,780	1,869	1,967	2,057
South Africa	600	180	100	750	408	252	209	193	204	227	259	276	215	163
South Korea	8,223	8,963	8,336	7,500	8,256	9,929	10,418	10,659	10,907	11,115	11,344	11,533	11,684	11,844
Sub-Saharan Africa	2,009	727	1,994	2,025	1,689	1,069	1,043	1,039	1,028	1,025	973	882	838	802
Taiwan	6,287	5,733	5,744	5,000	5,691	4,843	5,003	5,293	5,575	5,726	5,885	6,021	6,187	6,332
Thailand	220	260	300	500	320	148	46	27	13	78	104	189	191	179
Tunisia	224	215	376	300	279	323	330	337	343	350	356	363	370	378
Turkey	462	739	850	600	663	841	868	932	1,123	1,190	1,244	1,260	1,307	1,360
Other	2,424	2,317	3,002	2,911	2,664	2,558	2,586	2,559	2,566	2,549	2,537	2,512	2,492	2,461
<b>Total</b>	<b>70,142</b>	<b>64,912</b>	<b>65,752</b>	<b>65,045</b>	<b>66,463</b>	<b>72,182</b>	<b>75,899</b>	<b>78,705</b>	<b>81,720</b>	<b>84,664</b>	<b>87,827</b>	<b>90,566</b>	<b>93,433</b>	<b>96,895</b>
Exports-Imports	-4,918	6,008	-685	-4,005	-900	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Table 12--Barley trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	1,442	1,359	671	1,742	1,304	1,524	1,524	1,524	1,524	1,524	1,524	1,524	1,524	1,524
Australia	1,144	3,375	4,000	2,700	2,805	2,421	2,565	2,708	2,878	3,010	3,175	3,184	3,244	3,521
Canada	2,934	2,564	3,350	3,000	2,962	2,262	2,471	2,509	2,565	2,742	2,832	2,735	2,937	3,074
Central/East Europe	433	447	55	455	348	753	845	931	938	909	920	801	808	773
Czech Republic	132	20	0	0	38	0	0	0	0	0	0	0	0	0
Slovakia	40	2	0	0	11	0	0	8	21	3	20	0	27	1
Hungary	55	71	0	150	69	366	397	420	394	354	348	268	252	245
Poland	16	1	5	5	7	5	5	5	5	5	5	5	5	5
Other Central/East Europe	190	353	50	300	223	382	443	498	518	547	547	528	524	522
European Union-15 1/	5,800	2,750	4,000	6,000	4,638	7,738	7,279	7,004	6,944	7,419	7,419	8,621	8,491	8,748
Former Soviet Union 2/	2,289	1,026	949	2,200	1,616	991	1,094	1,236	1,336	1,163	1,213	1,088	1,109	973
Russia	1,500	300	149	1,750	925	598	534	600	652	491	491	347	342	200
Ukraine	215	123	100	200	160	168	260	336	384	372	422	441	467	473
Other Former Soviet Union	574	603	700	250	532	225	300	300	300	300	300	300	300	300
Turkey	1,022	3	500	800	581	429	433	437	442	446	451	455	460	552
Other	857	629	831	675	748	665	689	718	749	772	785	801	813	832
<b>Total</b>	<b>15,921</b>	<b>12,153</b>	<b>14,356</b>	<b>17,572</b>	<b>15,001</b>	<b>16,783</b>	<b>16,900</b>	<b>17,067</b>	<b>17,376</b>	<b>17,985</b>	<b>18,319</b>	<b>19,209</b>	<b>19,386</b>	<b>19,997</b>
<b>Importers</b>														
United States	1,434	887	801	762	971	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197
Algeria	296	1	125	300	181	298	295	292	292	294	295	298	297	300
Brazil	61	326	175	200	191	238	245	249	255	263	270	281	287	298
China	1,365	1,399	2,050	2,000	1,704	1,909	1,874	1,925	1,978	2,088	2,145	2,266	2,333	2,464
Central/East Europe	868	282	915	240	576	462	428	413	423	540	554	789	680	691
Czech Republic	0	34	300	25	90	209	199	200	207	310	316	527	421	411
Slovakia	0	0	65	0	16	34	14	0	0	0	0	6	0	0
Hungary	49	21	60	10	35	0	0	0	0	0	0	0	0	0
Poland	682	197	325	100	326	173	168	166	169	183	191	209	212	233
Other Central/East Europe	137	30	165	105	109	46	47	47	47	47	47	47	47	47
European Union-15 1/	60	150	100	299	152	216	224	258	247	271	237	250	250	250
Former Soviet Union 2/	1,656	1,204	875	955	1,173	1,047	1,185	1,123	1,085	1,128	1,099	1,270	1,226	1,278
Russia	584	600	300	250	434	100	100	100	100	100	100	150	150	162
Ukraine	0	1	0	0	0	100	150	150	150	150	150	200	200	200
Other Former Soviet Union	1,072	603	575	705	739	847	935	873	835	878	849	920	876	916
Iran	384	338	496	800	505	369	353	342	342	361	363	381	371	384
Japan	1,751	1,529	1,529	1,750	1,640	1,692	1,696	1,681	1,668	1,670	1,653	1,660	1,649	1,650
Other N. Africa & M. East	1,663	1,162	2,360	2,275	1,865	1,896	1,912	1,925	1,947	1,993	2,023	2,082	2,126	2,180
Other S. America	336	338	296	276	312	301	302	301	302	310	311	314	311	312
Saudi Arabia	3,002	2,966	5,600	4,500	4,017	5,398	5,379	5,532	5,719	5,846	6,104	6,356	6,624	6,891
Taiwan	306	213	200	150	217	220	230	236	248	254	261	267	273	280
Tunisia	350	234	200	300	271	245	243	241	239	238	237	236	234	233
Turkey	54	60	25	25	41	86	129	140	192	226	237	177	145	151
Other	1,256	1,080	1,185	1,150	1,168	1,209	1,208	1,212	1,242	1,306	1,333	1,385	1,383	1,438
<b>Total</b>	<b>14,842</b>	<b>12,169</b>	<b>16,932</b>	<b>15,982</b>	<b>14,981</b>	<b>16,783</b>	<b>16,900</b>	<b>17,067</b>	<b>17,376</b>	<b>17,985</b>	<b>18,319</b>	<b>19,209</b>	<b>19,386</b>	<b>19,997</b>
Exports-Imports	1,079	-16	-2,576	1,590	19	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Table 13--Sorghum trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	5,657	5,025	5,217	5,080	5,245	5,962	6,340	6,600	6,989	7,230	7,482	7,748	7,993	8,134
Argentina	192	800	798	1,200	748	601	607	605	581	546	534	501	489	486
Australia	50	537	150	250	247	330	295	278	245	216	195	159	146	136
Other S. America	31	46	25	25	32	23	24	25	25	26	26	25	25	25
Sub-Saharan Africa	235	86	5	50	94	50	50	51	59	77	56	56	72	63
Other	358	319	249	205	283	222	224	220	214	215	212	211	211	209
Total	6,523	6,813	6,444	6,810	6,648	7,188	7,540	7,779	8,113	8,310	8,505	8,700	8,936	9,053
<b>Importers</b>														
Japan	2,334	2,298	2,597	2,700	2,482	2,661	2,657	2,647	2,648	2,621	2,587	2,545	2,528	2,458
Mexico	2,544	1,764	2,091	2,500	2,225	3,151	3,477	3,781	4,080	4,302	4,505	4,732	4,977	5,149
Other N. Africa & M. East	214	432	457	400	376	422	437	447	462	473	485	495	503	515
Other S. America	47	140	53	60	75	32	28	31	39	38	42	41	40	42
Saudi Arabia	0	0	0	0	0	13	17	23	30	38	49	59	70	80
South Africa	13	0	0	0	3	0	0	0	1	2	5	8	9	9
South Korea	0	172	100	150	106	51	51	51	51	51	51	51	51	51
Sub-Saharan Africa	159	60	50	42	78	45	71	0	0	0	0	0	0	0
Taiwan	29	87	68	50	59	73	79	92	103	110	117	123	130	136
Thailand	36	4	5	0	11	0	0	0	0	0	0	0	0	0
Other	772	1,289	598	496	789	749	732	716	708	686	676	658	640	626
Total	6,148	6,246	6,019	6,398	6,203	7,197	7,549	7,788	8,122	8,321	8,517	8,712	8,948	9,066
Exports-Imports	375	567	425	412	445	-9	-9	-9	-9	-11	-12	-12	-12	-13

as animal numbers increase with an improving economy. High wheat prices are expected to reduce feed wheat trade in favor of coarse grains, especially to South Korea.

Significant growth in both corn and barley trade is expected. Sorghum trade is projected to increase gradually through the baseline as prices are attractive for Mexico and Japan. Trade in other coarse grains is projected to grow from 1997 levels, but remain below 1995 levels throughout the baseline as EU rye shipments to Korea are limited by transport costs.

World corn trade is expected to expand rapidly, passing the 1989 record of 80 million tons in 2002, and reaching 97 million tons by 2007. The largest gains in corn imports are expected to occur in China, Southeast Asia, and North Africa/Middle East, where demand for feed for livestock is expected to continue expanding rapidly. Although Argentina's corn exports are projected to rise, wheat and oilseed prices are likely to limit Argentine corn area expansion, leaving the United States the major beneficiary of robust import demand for corn.

For barley, much of the demand growth will occur in China and other malting barley markets. Feed barley imports by Saudi Arabia are expected to expand but, in most other markets, growth in feed barley imports is expected to be slowed by constrained supplies and substitution of other feeds. Canada and Australia are expected to expand area of wheat, canola, and malting barley at the expense of feed barley. The Uruguay Round Agreement limits on subsidized EU coarse grain exports will constrain combined exports of barley, rye, and other coarse grains through 2007. Future responses by other barley exporters to expected higher relative prices for competing crops (wheat and canola), and by barley importers to tight barley supplies, are important uncertainties in the outlook for coarse grain trade.

U.S. exports of coarse grains are projected to rise in the near term, as China returns to being a net corn importer and competition from Eastern Europe declines. U.S. exports grow an average of 2.8 million tons per year, reaching 86.5 million by 2007. By 2001, U.S. coarse grain exports are expected to reach the 1979/80 record of 71 million tons, with corn accounting for 64 million. The U.S. share of world coarse grain trade is projected to grow to 66.4 percent in 2004, but fall slightly in the last few years of the baseline. Growth in U.S. market

share is expected to slow toward the end of the projection period, as stronger prices boost foreign production and U.S. area expansion is increasingly limited by the CRP and crop competition.

Competitors' coarse grain exports are expected to drop in the near term, as gains in demand outpace production in China and South Africa. In the longer term, foreign coarse grain exports are projected to rise, particularly when import demand and prices strengthen after 2000, but remain below the highs of the early 1990s.

Foreign coarse grain production is projected to rise through 2007, as gains in both area and yields reverse the downward trend of the 1980s and early 1990s. Past coarse grain yield growth is expected to continue. Area growth is anticipated to be slow, 0.5 percent per year, but any growth is a big change from the generally declining coarse grain area since 1980. Foreign corn and barley production, in particular, are expected to respond to higher prices after 2000. Annual growth in foreign coarse grain consumption is projected at 2 percent through 2007, stronger than during the 1980s, but below the 3-percent rate of the 1970s. Corn is expected to account for the growth, especially in China, Southeast Asia, and Latin America, where livestock output and feed demand are expanding rapidly as incomes rise.

### **Highlights for Major Importers**

About two-thirds of global coarse grain supplies are used as animal feed, and coarse grain that is traded is primarily used as feed. Thus, rising incomes and associated gains in per capita meat consumption, particularly in developing countries, drive projected gains in coarse grain use and trade. Industrial uses, such as starch production, ethanol, and malting, are relatively small but growing. Food use of coarse grains is concentrated in parts of Latin America, Africa, and Asia, and has generally declined over time as consumers tend to shift consumption toward wheat, rice, or other foods as their incomes rise.

Imports of coarse grains for livestock feeding are projected to strengthen dramatically in the baseline, fueled by strong per-capita income growth in China, Mexico, South America, the Middle East, and North Africa. Korea and Taiwan are also expected to remain major importers, but their import growth is projected to slow. Japan's imports are likely to wane as increasing meat imports reduce domestic demand for

feed grains; but Japan is expected to remain the largest single importer of coarse grains. Demand in East and Southeast Asia is projected to slow during the first few years of the baseline due to the Asian financial crisis. However, the baseline macroeconomic assumptions, completed in October 1997, do not fully account for the impacts of the crisis (see Asia crisis box, page 12).

**Japan.** Japan's coarse grain imports are expected to decline because of a contraction in feed use as meat imports increase. The projected decline in feed demand is expected to be only partially offset by rising imports of industrial-use corn in response to minimum access requirements under the Uruguay Round Agreement. Projected corn imports are still more than 15 million tons in 2007.

**China.** Strong economic growth is expected to raise meat demand, most of which is expected to be met by expanding domestic meat production. As livestock production is modernized and concentrated, the use of concentrate feed rations is expected to increase, further boosting feed demand. Although corn yields are projected to grow, land availability is constrained, and production is not expected to keep pace with demand growth. Increased corn imports will be needed for growing meat production and to contain domestic meat prices. While exporting significant quantities of corn from northern areas to nearby countries, China is expected to import ever larger amounts of corn in the south. Early in the baseline, China is expected to be a small net importer of less than a million tons, but by 2007 net corn imports are projected to reach more than 13 million tons. Substantial growth in malting barley imports to produce beer is also anticipated, with barley imports reaching 2.5 million tons in 2007.

The expected emergence of China as a large and growing corn importer is the key development in the projections for U.S. and global coarse grain trade. However, the size and pace of China's future imports is very uncertain, depending on policy developments and supply and demand uncertainties.

**South Korea.** Coarse grain imports are projected to continue growing during the decade, but at a slower rate than in the past. Lower income growth prospects dampen demand in the first years of the baseline. Even if economic growth turns out to be lower than assumed in this baseline, coarse grain imports are likely to grow because a more competitive exchange rate would be expected to boost the competitiveness of local meat

production and exports, offsetting lower income growth. Grain fed is projected to rise by about 25 percent from 1997 levels by 2006. Increased production of all live-stock products except beef will contribute to the growth, but feeding of swine will be the most important factor. By 2007, South Korean corn imports are expected to remain below 12 million tons, but up from less than 10 million early in the baseline. Limited availability of competitively priced feed wheat or rye will contribute to this strengthening demand for corn.

**Mexico.** Mexico's coarse grain imports are projected to show robust growth, rising from about 8 million tons in 1998 to 12 million by 2007. Area planted to corn is expected to decline slowly as PROCAMPO policies change relative prices, and because the progressive integration of subsistence producers into the money economy should reduce the predominance of corn. Mexico is expected to continue to allow duty-free corn imports above the tariff rate quota level (3.46 million tons in 2005) set under the North America Free Trade Agreement. Sorghum imports are projected to expand despite gains in Mexican sorghum area under PROCAMPO. Growth in corn feed use will be driven by gains in per capita income and resulting increases in meat demand and meat production. Corn food use, primarily in the form of tortillas, will be driven largely by population growth.

**Taiwan.** The sudden and devastating outbreak of foot-and-mouth disease (FMD) on Taiwan's hog farms in March 1997 is expected to have a significant impact on Taiwan's coarse grain trade (see box, page 164). The timing and extent of any recovery in Taiwan's pork exports and hog production is uncertain. For the purpose of the baseline projections, it is assumed that Taiwan will withdraw from pork exports for about 5 years, with exports restarting in 2003 and gradually recovering to about 25 percent of their former level by 2007. Coarse grain imports are projected to fall to 4.5 million tons in 1998, but grow to 6.7 million by 2007, driven by steady gains in poultry. Efforts to raise domestic coarse grain production will have little impact on trade.

**Former Soviet Union.** The FSU is responsible for most of the drop in global coarse grain trade in recent years. Coarse grain imports by the countries of the FSU are projected to rise slowly through 2007, but remain well below historical highs due to continued relatively low historical livestock inventories, the impact of low real incomes on meat and feed demand,



and limited foreign exchange and credit. FSU imports, which ranged between 11 and 28 million tons in the 1980s and early 1990s, are projected to rise from less than 2 million tons early in the baseline to more than 4 million tons by 2007. Ukraine is expected to increase corn exports throughout the baseline, but Russia is projected to reduce barley exports, leaving the region's coarse grain exports little changed.

The timing and extent of recovery in FSU coarse grain production and use are uncertain, depending on the pace of economic and farm sector reform and on the pace of foreign direct investments. Changes in the outlook for economic growth or gains in farm productivity could alter the trade projections significantly.

**Saudi Arabia.** Saudi Arabia is the world's largest barley importer, and is projected to be the fifth largest coarse grain importer in 2007, importing more than 9 million tons. Uruguay Round limits on EU barley exports are expected to result in some substitution of corn for barley in Saudi feed rations and imports. Current Saudi policy reforms are also expected to reduce sharply producer subsidies and limit growth in barley production. Saudi corn feed use is projected to increase under the assumption of substantial expansion in the poultry industry. The share of corn in total coarse grain imports is projected to rise to more than 2 million tons by 2007.

The response of barley importers, including Saudi Arabia and other North Africa and Middle East countries, to tight global supplies and rising prices relative to other feed grains is an important area of uncertainty in the coarse grain projections. Slowed growth in feed demand and more substitution of corn and other feeds is expected, but the relative size of these adjustments is difficult to assess.

**North Africa, Middle East, South America, Central America, and the Caribbean.** Countries in these regions are beginning to expand livestock production, following the pattern of East Asia during the 1980's. Income growth through 2007 is projected to be stronger than during the 1980's in North Africa, the Middle East, and much of Latin America.

### Highlights for Major Foreign Exporters

Coarse grain exports are also projected to rise sharply through 2007, with corn accounting for the bulk of the gains, but also significant gains in barley and sorghum.

Increases in exports of other coarse grains are expected to be relatively small. The United States, Argentina, CEE, and FSU are expected to expand corn exports, with Argentina becoming the largest U.S. competitor, as exports by China and South Africa decline. U.S. sorghum is projected to meet nearly all growth in sorghum trade, mostly to Mexico and Japan. EU barley exports are expected to be capped by UR limits on subsidized coarse grain exports. Australian and Canadian barley exports are projected to show modest growth.

**Argentina.** Corn area is expected to change little throughout the baseline as higher coarse grain prices are offset by increasing returns to soybeans, sunflower, and wheat. Increased input use is, however, expected to maintain production gains, and push corn exports to almost 13 million tons by 2007, keeping Argentina the world's second largest exporter of coarse grains. Input prices are expected to continue to fall relative to output prices as domestic inflation eases and the government continues to support market-oriented policies. With even higher prices, additional land could be brought into production. However, major area expansion beyond the reach of existing marketing channels may require more investment in marketing infrastructure.

**Central and Eastern Europe.** Significant coarse grain export gains are projected in response to higher nominal corn and barley prices. Corn exports are projected to rise to over 3 million tons by 2007. Barley exports increase until 2002, reaching nearly a million tons, as world demand is strong and EU exports are limited; but later in the baseline, exports decline and imports rise, leaving the region a net exporter of only a nominal amount by 2007. Despite the expected recovery in consumer incomes, growth in domestic feed demand is expected to be relatively slow as higher meat and feed prices resulting from market reforms both dampen demand for meat products and stimulate gains in feeding efficiency. Export growth will, however, depend on prices remaining firm because several of these countries support domestic prices at relatively high levels.

The potential for exports of corn from CEE and barley from the FSU is an important uncertainty in the outlook. Exports from Eastern Europe are expected to emerge more rapidly than from the FSU because market reforms are more advanced and the region has a history of exporting significant amounts of coarse grains, including recent exports in response to higher

world prices. While the projections incorporate the expected growth of future trade, actual exports could be significantly higher or lower depending on agricultural policy decisions as well as supply response to world market prices.

**China.** China's coarse grain exports are projected to decline through 2007, as strong internal corn demand limits export availabilities. As noted above, however, the rate of decline of China's corn exports is a key uncertainty in the projections.

**South Africa.** Corn exports are already significantly less than historical levels and are projected to drop further. Corn area is expected to rise as the economy gradually strengthens, but most new production is likely to be consumed domestically as per capita income and feed demand rise.

**European Union.** The EU is projected to remain the world's third largest exporter of coarse grains with exports of about 10 million tons of barley and other coarse grains in 2007. Although excess supplies are likely to push internal market prices of coarse grains below intervention prices, world market prices are not projected to permit unsubsidized coarse grain exports during the baseline. As a result, EU exports are expected to be constrained by Uruguay Round limits on subsidized exports through 2007. In the first few years of the baseline, however, tight supplies and higher feed use are expected to hold coarse grain exports below the Uruguay Round subsidized export limits.

The EU area set-aside, assumed at 5 percent for 1997-1999 and 10 percent for 2000-2007, will be the key instrument for balancing coarse grain production with exports and internal feed demand. Feed demand for corn and barley is expected to expand due to rising domestic and export demand for pork and poultry,

whose production is more grain-intensive than beef. On the other hand, use of non-grain feeds, particularly corn gluten feed and other energy, is likely to slow due to lower beef production following BSE-induced slow-down in consumer demand. EU grain feed use is also likely to be affected in the longer term by lower internal market prices resulting from compliance with constraints on subsidized exports. Set-aside rates below 10 percent for 2000-2007, however, would likely lead to excess supplies of coarse grains that could not be fed domestically or exported without subsidy.

EU coarse grain imports are expected to be limited to the minimum access commitments for corn. Corn imports for the northern European starch industry are assumed to fall due to competition from wheat, and are included in the minimum access levels for the Iberian countries.

**Canada.** Barley production is projected to show only modest growth because of area competition with wheat and canola. Barley acreage is projected to increase gradually as demand for malting barley rises. But domestic barley demand is expected to show less growth, so some gains in exports are likely. Annual barley exports are projected to reach 3 million tons by 2007 primarily because of increased demand for malting barley.

**Australia.** Australia's coarse grain output is dominated by barley. Little growth is projected for barley area because of competition from other crops, and most production gains will come from increasing yields. Exports of feed barley are projected to decline because of limited output gains and rising domestic feed demand. However, with the rapid expansion of beer consumption in Asia, malting barley exports are likely to continue to grow.

Table 14--Coarse Grains Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	323,441	2.70	873,683	92,983	92,392	860,178	260,498	45.7	574,410	136,225
1995	313,363	2.56	801,845	84,425	93,752	840,955	258,614	44.7	547,666	95,444
1996	322,441	2.81	907,217	89,985	90,390	887,406	267,474	45.6	582,625	118,319
1997	316,994	2.82	892,857	88,232	91,669	904,645	267,389	45.0	605,751	105,071
1994-97 ave.	319,060	2.72	868,901	88,906	92,051	873,296	263,494	45.3	577,613	113,765
1999	319,163	2.93	934,042	101,649	101,649	929,574	276,418	45.3	617,164	117,584
2000	320,567	2.96	948,522	105,755	105,755	949,842	279,457	45.2	634,580	116,264
2001	321,062	3.00	964,298	108,968	108,968	966,219	282,468	45.0	647,785	114,344
2002	322,080	3.05	981,978	112,842	112,842	983,002	285,600	45.0	661,404	113,320
2003	322,925	3.09	998,609	116,717	116,717	999,804	288,918	44.9	674,376	112,125
2004	325,094	3.14	1,019,738	120,693	120,693	1,019,013	291,841	44.8	689,676	112,850
2005	326,309	3.18	1,038,300	124,708	124,708	1,037,151	294,864	44.7	704,113	113,999
2006	326,933	3.23	1,054,456	128,065	128,065	1,053,086	298,001	44.6	716,736	115,369
2007	327,680	3.27	1,070,396	132,414	132,414	1,069,244	301,036	44.6	729,396	116,521
<b>United States</b>										
1994	37,591	7.58	284,886	3,394	62,425	207,900	47,538	180.7	159,232	45,338
1995	33,549	6.24	209,436	2,790	63,004	180,120	44,796	168.7	133,591	14,440
1996	38,384	6.97	267,559	2,930	51,523	206,397	47,591	177.6	157,067	27,009
1997	37,550	7.07	265,422	2,940	48,129	218,666	49,598	183.5	165,826	28,576
1994-97 ave.	36,769	6.98	256,826	3,014	56,270	203,271	47,381	177.6	153,929	28,841
1999	38,259	7.34	280,937	3,177	64,673	216,980	52,258	190.1	163,221	33,047
2000	38,300	7.43	284,584	3,177	68,878	220,908	53,655	193.5	165,489	31,022
2001	38,421	7.54	289,719	3,177	71,678	223,874	54,558	195.2	167,557	28,366
2002	38,664	7.63	295,016	3,177	74,604	226,300	55,483	196.9	169,063	25,655
2003	38,988	7.72	300,823	3,177	77,373	228,847	56,499	198.9	170,568	23,435
2004	39,271	7.81	306,537	3,177	80,177	231,011	57,403	200.5	171,838	21,961
2005	39,474	7.89	311,473	3,177	82,340	233,003	58,419	202.4	172,818	21,268
2006	39,595	7.98	316,008	3,177	84,487	234,915	59,450	204.4	173,689	21,051
2007	39,636	8.07	319,764	3,177	86,538	236,657	60,466	206.2	174,433	20,797
<b>Algeria</b>										
1994	362	0.67	243	1,421	0	1,664	186	6.5	1,478	100
1995	901	0.66	592	489	0	1,131	200	6.9	940	50
1996	1,101	1.27	1,402	1,035	0	2,437	400	13.4	2,012	50
1997	1,001	0.48	477	1,300	0	1,777	400	13.1	1,377	50
1994-97 ave.	841	0.81	679	1,061	0	1,752	297	10.0	1,452	63
1999	1,094	0.90	987	1,413	0	2,393	174	5.5	2,219	93
2000	1,097	0.91	994	1,411	0	2,405	178	5.5	2,220	93
2001	1,100	0.91	1,001	1,409	0	2,411	183	5.5	2,223	93
2002	1,102	0.91	1,007	1,412	0	2,420	188	5.6	2,228	92
2003	1,107	0.92	1,014	1,417	0	2,432	192	5.6	2,235	91
2004	1,111	0.92	1,022	1,421	0	2,443	197	5.6	2,243	92
2005	1,113	0.92	1,028	1,426	0	2,455	202	5.6	2,250	91
2006	1,114	0.93	1,032	1,428	0	2,460	207	5.7	2,252	92
2007	1,117	0.93	1,039	1,435	0	2,474	212	5.7	2,260	92
<b>Argentina</b>										
1994	3,558	3.89	13,855	8	6,099	7,889	1,818	53.0	6,071	1,427
1995	3,950	3.57	14,085	8	8,355	6,451	1,840	53.1	4,606	714
1996	4,659	4.06	18,931	74	12,298	6,614	1,795	51.2	4,704	807
1997	4,735	4.49	21,250	11	13,200	7,860	1,595	45.0	5,965	1,008
1994-97 ave.	4,226	4.03	17,030	25	9,988	7,204	1,762	50.6	5,337	989
1999	4,219	4.12	17,388	0	9,684	7,670	1,636	45.2	6,034	977
2000	4,241	4.21	17,844	0	9,985	7,834	1,696	46.4	6,138	1,002
2001	4,224	4.31	18,225	0	10,273	7,934	1,722	46.6	6,212	1,020
2002	4,244	4.43	18,803	0	10,752	8,025	1,745	46.7	6,281	1,046
2003	4,231	4.54	19,226	0	11,099	8,110	1,758	46.6	6,352	1,063
2004	4,273	4.68	19,979	0	11,732	8,213	1,779	46.7	6,434	1,097
2005	4,304	4.81	20,690	0	12,340	8,319	1,802	46.8	6,518	1,128
2006	4,294	4.92	21,136	0	12,699	8,417	1,821	46.9	6,596	1,148
2007	4,385	5.04	22,087	0	13,554	8,489	1,834	46.8	6,655	1,192

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Australia</b>										
1994	4,173	1.30	5,406	185	1,277	4,716	1,167	64.5	3,549	491
1995	5,032	1.91	9,625	30	4,222	5,263	1,299	71.1	3,962	661
1996	5,063	1.97	9,968	3	4,410	5,681	1,226	66.5	4,454	541
1997	4,885	1.74	8,505	10	3,160	5,205	1,200	64.5	4,005	681
1994-97 ave.	4,788	1.75	8,376	57	3,267	5,216	1,223	66.7	3,993	594
1999	4,609	1.81	8,329	10	2,751	5,617	1,212	64.0	4,405	693
2000	4,517	1.84	8,313	10	2,860	5,440	1,219	63.8	4,222	716
2001	4,591	1.87	8,580	10	2,998	5,595	1,224	63.5	4,370	713
2002	4,659	1.90	8,831	10	3,163	5,685	1,231	63.4	4,454	706
2003	4,691	1.92	9,027	10	3,279	5,759	1,237	63.2	4,523	705
2004	4,744	1.95	9,265	10	3,429	5,848	1,242	63.0	4,605	703
2005	4,781	1.98	9,477	10	3,406	6,108	1,249	62.8	4,859	676
2006	4,828	2.01	9,714	10	3,478	6,261	1,255	62.7	5,006	661
2007	4,843	2.04	9,899	10	3,743	6,152	1,261	62.6	4,891	675
<b>Brazil</b>										
1994	14,744	2.59	38,216	1,483	0	37,036	5,556	34.6	31,633	7,275
1995	14,332	2.32	33,236	751	110	37,837	5,606	34.5	32,205	3,315
1996	14,205	2.58	36,630	550	200	38,210	5,605	34.1	32,635	2,085
1997	13,185	2.56	33,805	975	25	35,330	5,355	32.2	29,975	1,510
1994-97 ave.	14,117	2.51	35,472	940	84	37,103	5,531	33.8	31,612	3,546
1999	13,512	2.67	36,096	1,812	25	37,812	5,397	31.8	32,415	1,619
2000	13,658	2.71	37,024	1,953	25	38,912	5,368	31.4	33,544	1,659
2001	13,788	2.77	38,222	2,083	25	40,223	5,363	31.1	34,861	1,716
2002	13,827	2.82	38,983	2,123	25	41,046	5,363	30.8	35,682	1,751
2003	13,844	2.87	39,697	2,271	25	41,909	5,333	30.4	36,576	1,785
2004	13,905	2.92	40,614	2,277	25	42,828	5,320	30.1	37,508	1,823
2005	13,957	2.97	41,496	2,299	25	43,733	5,303	29.7	38,431	1,860
2006	14,067	3.03	42,566	2,311	25	44,804	5,312	29.6	39,491	1,908
2007	14,130	3.07	43,393	2,312	25	45,642	5,315	29.4	40,327	1,946
<b>Canada</b>										
1994	6,955	3.36	23,394	931	4,730	21,320	2,707	94.9	18,593	3,296
1995	6,967	3.46	24,122	871	4,164	21,224	2,572	89.2	18,652	2,901
1996	8,004	3.52	28,194	919	5,425	21,311	2,636	90.5	18,666	5,278
1997	7,625	3.31	25,215	1,010	4,850	22,107	2,635	89.6	19,412	4,546
1994-97 ave.	7,388	3.42	25,231	933	4,792	21,491	2,638	91.1	18,831	4,005
1999	7,711	3.43	26,447	750	4,355	22,802	2,828	94.3	19,974	3,975
2000	7,745	3.45	26,686	826	4,681	22,832	2,843	93.9	19,989	3,974
2001	7,784	3.46	26,952	874	4,838	22,965	2,854	93.5	20,112	3,997
2002	7,840	3.48	27,245	948	4,981	23,175	2,867	93.1	20,308	4,034
2003	7,919	3.48	27,593	1,003	5,176	23,382	2,884	92.9	20,498	4,072
2004	7,977	3.49	27,831	1,077	5,361	23,524	2,905	92.8	20,618	4,095
2005	7,954	3.50	27,873	1,104	5,276	23,674	2,928	92.8	20,746	4,122
2006	8,072	3.51	28,370	1,118	5,586	23,867	2,951	92.8	20,916	4,157
2007	8,132	3.52	28,650	1,152	5,738	24,035	2,975	92.8	21,059	4,186
<b>Central America &amp; Caribbean</b>										
1994	2,526	1.29	3,267	2,105	16	5,422	2,889	42.5	2,602	249
1995	2,601	1.47	3,836	2,012	5	5,840	2,998	43.4	2,795	252
1996	2,660	1.44	3,828	2,625	0	6,397	3,135	44.7	3,159	308
1997	2,653	1.38	3,655	2,720	0	6,405	3,099	43.5	3,246	278
1994-97 ave.	2,610	1.40	3,647	2,366	5	6,016	3,030	43.5	2,951	272
1999	2,697	1.38	3,735	2,696	0	6,429	3,207	43.6	3,222	281
2000	2,719	1.39	3,788	2,741	0	6,526	3,190	42.7	3,337	284
2001	2,741	1.40	3,840	2,774	0	6,612	3,183	42.0	3,429	286
2002	2,763	1.41	3,890	2,838	0	6,725	3,208	41.7	3,517	289
2003	2,785	1.42	3,944	2,889	0	6,830	3,234	41.5	3,596	291
2004	2,807	1.42	3,999	2,969	0	6,965	3,293	41.6	3,671	295
2005	2,829	1.43	4,049	3,013	0	7,060	3,292	41.0	3,768	297
2006	2,851	1.44	4,094	3,049	0	7,141	3,269	40.1	3,871	299
2007	2,872	1.44	4,146	3,107	0	7,250	3,298	39.9	3,952	302

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Central &amp; Eastern Europe</b>										
1994	16,735	2.80	46,852	1,324	1,237	47,791	10,381	86.2	37,350	3,386
1995	16,148	3.19	51,438	719	2,759	48,851	10,922	90.9	37,935	3,933
1996	16,181	3.06	49,557	1,696	1,472	49,757	10,804	90.0	38,791	3,957
1997	16,328	3.55	57,891	820	3,400	53,502	10,872	90.6	42,510	5,721
1994-97 ave.	16,348	3.15	51,435	1,140	2,217	49,975	10,745	89.4	39,147	4,249
1999	16,885	3.19	53,843	1,120	3,212	51,759	11,131	92.5	40,629	4,630
2000	16,776	3.23	54,143	1,131	2,997	52,278	11,319	93.8	40,956	4,629
2001	16,642	3.26	54,307	1,106	2,987	52,423	11,461	94.7	40,961	4,632
2002	16,562	3.30	54,641	1,283	2,993	52,906	11,580	95.5	41,323	4,656
2003	16,531	3.34	55,270	1,369	2,979	53,583	11,682	96.1	41,899	4,733
2004	16,522	3.39	55,987	1,504	2,979	54,446	11,809	96.9	42,637	4,800
2005	16,515	3.43	56,592	1,621	3,004	55,104	11,927	97.7	43,179	4,904
2006	16,512	3.46	57,082	1,522	3,548	55,059	12,049	98.5	43,010	4,902
2007	16,511	3.50	57,716	1,555	4,172	55,078	12,134	99.1	42,942	4,922
<b>China</b>										
1994	26,089	4.38	114,291	6,366	1,601	117,053	33,331	27.8	81,306	28,762
1995	27,329	4.56	124,504	2,962	255	122,273	33,582	27.8	86,024	33,700
1996	29,154	4.85	141,368	2,175	3,997	130,742	35,470	29.0	93,160	42,454
1997	27,980	4.22	118,150	2,300	5,025	136,575	34,781	28.2	98,994	21,254
1994-97 ave.	27,638	4.51	124,578	3,451	2,720	126,661	34,291	28.2	89,871	31,543
1999	28,001	5.09	142,531	4,907	1,214	144,279	34,946	27.9	107,072	36,351
2000	29,747	5.05	150,259	6,286	1,249	153,674	34,491	27.3	116,272	37,973
2001	29,287	5.25	153,863	7,079	1,236	159,014	34,208	26.9	121,904	38,665
2002	29,286	5.44	159,449	8,099	1,224	165,158	33,856	26.4	128,368	39,831
2003	28,681	5.66	162,418	9,424	1,191	170,216	33,383	25.9	133,848	40,266
2004	29,498	5.76	169,833	10,856	1,170	178,022	32,794	25.3	141,856	41,763
2005	29,502	5.92	174,657	12,582	1,143	185,223	32,324	24.7	149,306	42,636
2006	29,362	6.12	179,689	14,378	1,130	192,019	31,859	24.2	156,475	43,554
2007	29,102	6.31	183,491	16,774	1,098	198,597	31,325	23.7	163,420	44,124
<b>Czech Republic</b>										
1994	863	3.72	3,211	32	160	3,217	1,002	97.1	2,215	513
1995	723	3.74	2,703	80	25	2,973	1,060	102.7	1,941	298
1996	763	3.73	2,849	550	0	3,390	1,030	99.8	2,290	307
1997	831	3.91	3,253	60	0	3,328	1,065	103.2	2,260	257
1994-97 ave.	795	3.78	3,004	181	46	3,227	1,039	100.7	2,177	344
1999	836	3.82	3,190	246	11	3,457	1,083	104.6	2,374	930
2000	815	3.85	3,135	247	4	3,398	1,084	104.4	2,313	910
2001	810	3.88	3,142	255	0	3,400	1,100	105.7	2,299	907
2002	804	3.91	3,143	282	0	3,422	1,097	105.2	2,324	910
2003	806	3.95	3,184	385	0	3,539	1,102	105.6	2,436	940
2004	806	3.99	3,215	415	0	3,617	1,116	106.8	2,501	953
2005	805	4.02	3,236	619	0	3,805	1,121	107.2	2,684	1,003
2006	803	4.04	3,246	525	0	3,781	1,134	108.4	2,646	993
2007	806	4.07	3,282	516	0	3,795	1,127	107.8	2,668	996
<b>Egypt</b>										
1994	1,105	5.95	6,580	2,613	0	8,893	1,908	30.6	6,985	545
1995	1,100	5.71	6,278	2,245	0	8,735	1,975	31.1	6,783	333
1996	1,074	6.29	6,755	3,183	0	9,938	2,070	31.9	7,868	333
1997	1,130	5.87	6,635	3,275	0	9,915	1,945	29.5	7,770	328
1994-97 ave.	1,102	5.95	6,562	2,829	0	9,370	1,975	30.8	7,352	385
1999	1,176	5.99	7,039	3,318	0	10,344	2,124	31.0	8,220	263
2000	1,184	6.05	7,158	3,564	0	10,713	2,193	31.5	8,520	272
2001	1,191	6.27	7,465	3,683	0	11,139	2,246	31.7	8,890	281
2002	1,200	6.40	7,674	3,795	0	11,461	2,300	31.9	9,161	289
2003	1,206	6.48	7,819	3,947	0	11,760	2,357	32.1	9,400	295
2004	1,212	6.60	8,003	4,055	0	12,051	2,410	32.3	9,639	302
2005	1,221	6.67	8,140	4,210	0	12,343	2,464	32.5	9,878	309
2006	1,232	6.77	8,338	4,361	0	12,691	2,525	32.8	10,161	317
2007	1,239	6.89	8,542	4,518	0	13,052	2,594	33.2	10,454	325

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>EU-15</b>										
1994	18,765	4.62	86,621	3,920	8,750	87,415	6,327	17.0	65,218	12,397
1995	18,478	4.79	88,488	3,825	5,050	89,801	6,040	16.1	68,426	9,859
1996	19,628	5.29	103,735	3,225	6,350	98,718	5,877	15.6	72,323	11,751
1997	20,576	5.28	108,672	2,799	8,200	97,191	5,913	15.7	75,631	17,831
1994-97 ave.	19,362	5.00	96,879	3,442	7,088	93,281	6,039	16.1	70,400	12,960
1999	20,109	5.25	105,518	2,516	9,528	98,580	6,023	15.9	74,591	13,292
2000	19,505	5.33	103,964	2,524	8,959	98,193	6,044	15.9	74,217	12,628
2001	19,390	5.40	104,691	2,558	8,544	98,787	6,075	15.9	74,627	12,546
2002	19,343	5.45	105,408	2,547	8,484	99,270	6,111	16.0	74,944	12,747
2003	19,389	5.50	106,544	2,571	8,959	99,989	6,144	16.0	75,509	12,914
2004	19,322	5.54	107,135	2,537	8,959	100,590	6,177	16.1	75,962	13,037
2005	19,484	5.60	109,137	2,550	10,161	101,404	6,204	16.1	76,575	13,159
2006	19,228	5.65	108,677	2,550	10,063	101,208	6,237	16.2	76,220	13,115
2007	19,222	5.70	109,504	2,550	10,418	101,593	6,263	16.2	76,442	13,158
<b>Former Soviet Union</b>										
1994	50,442	1.62	81,832	2,819	2,784	83,057	22,781	77.9	60,286	12,444
1995	45,077	1.32	59,411	2,084	1,536	66,005	20,247	69.2	45,800	6,373
1996	39,687	1.39	54,973	1,880	1,549	57,808	20,219	69.0	37,684	3,869
1997	40,388	1.74	70,295	1,885	3,075	65,102	20,339	69.3	44,176	7,862
1994-97 ave.	43,899	1.52	66,628	2,167	2,236	67,993	20,897	71.3	46,987	7,637
1999	39,857	1.57	62,427	2,305	2,662	62,102	21,270	72.1	37,337	4,647
2000	39,264	1.58	62,195	2,664	2,594	62,336	21,203	71.6	38,356	4,576
2001	39,104	1.60	62,690	2,825	2,868	62,597	21,284	71.6	38,502	4,626
2002	38,905	1.62	63,134	3,009	2,900	63,166	21,488	72.0	38,923	4,703
2003	38,853	1.65	63,944	3,169	2,803	64,228	21,765	72.7	39,333	4,785
2004	38,731	1.67	64,698	3,480	2,901	65,178	22,040	73.3	39,856	4,884
2005	38,618	1.70	65,506	3,786	2,913	66,311	22,334	74.0	40,297	4,952
2006	38,441	1.72	66,233	3,945	3,004	67,114	22,632	74.6	40,684	5,012
2007	38,291	1.75	67,159	4,146	2,945	68,288	22,948	75.4	41,307	5,084
<b>Hungary</b>										
1994	1,763	3.52	6,200	59	425	5,854	634	62.9	5,220	390
1995	1,563	4.04	6,308	35	571	5,804	640	64.0	5,160	358
1996	1,497	4.70	7,040	72	100	6,562	550	55.4	5,920	808
1997	1,520	5.17	7,865	20	1,350	6,540	640	64.8	5,900	803
1994-97 ave.	1,586	4.32	6,853	47	612	6,190	616	61.8	5,550	590
1999	1,556	4.74	7,368	0	571	6,802	653	66.6	6,150	488
2000	1,535	4.79	7,353	26	397	6,987	662	67.8	6,323	483
2001	1,525	4.84	7,384	4	420	6,970	672	69.1	6,298	481
2002	1,519	4.89	7,426	112	394	7,142	684	70.4	6,458	483
2003	1,521	4.94	7,519	67	354	7,228	692	71.5	6,536	487
2004	1,521	5.00	7,602	113	348	7,365	701	72.7	6,664	489
2005	1,519	5.04	7,656	0	322	7,328	713	74.2	6,615	495
2006	1,516	5.07	7,693	0	493	7,198	728	76.0	6,471	497
2007	1,520	5.12	7,783	0	742	7,040	739	77.5	6,300	498
<b>Indonesia</b>										
1994	3,652	1.67	6,100	1,738	56	7,047	3,000	14.7	4,047	1,100
1995	3,531	1.70	6,000	774	30	7,244	3,000	14.5	4,244	600
1996	3,550	1.83	6,500	944	0	7,344	2,900	13.8	4,450	700
1997	3,500	1.86	6,500	600	0	7,200	2,900	13.6	4,300	600
1994-97 ave.	3,558	1.76	6,275	1,014	22	7,209	2,950	14.2	4,260	750
1999	3,563	1.87	6,657	1,246	0	7,886	2,834	12.9	5,052	542
2000	3,596	1.86	6,700	1,598	0	8,271	2,782	12.5	5,489	569
2001	3,629	1.86	6,746	1,865	0	8,589	2,737	12.1	5,853	591
2002	3,664	1.86	6,800	1,961	0	8,750	2,683	11.7	6,067	602
2003	3,692	1.85	6,843	2,067	0	8,900	2,628	11.3	6,273	612
2004	3,720	1.85	6,888	2,160	0	9,039	2,566	10.9	6,473	621
2005	3,749	1.85	6,938	2,254	0	9,182	2,498	10.5	6,684	631
2006	3,779	1.85	6,993	2,348	0	9,331	2,424	10.1	6,907	641
2007	3,811	1.85	7,052	2,451	0	9,491	2,348	9.6	7,144	653

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Iran</b>										
1994	2,660	1.42	3,790	1,476	0	5,224	1,554	24.0	3,670	942
1995	2,560	1.32	3,390	1,619	0	5,189	1,525	23.1	3,664	762
1996	2,460	1.30	3,190	2,046	0	5,391	1,525	22.6	3,870	607
1997	2,285	1.37	3,120	2,300	0	5,495	1,525	22.1	3,970	532
1994-97 ave.	2,491	1.35	3,373	1,860	0	5,325	1,532	23.0	3,794	711
1999	2,526	1.40	3,530	1,721	0	5,280	1,437	20.0	3,843	556
2000	2,537	1.40	3,555	1,711	0	5,316	1,458	19.8	3,859	506
2001	2,549	1.40	3,580	1,706	0	5,342	1,480	19.7	3,866	450
2002	2,558	1.41	3,601	1,713	0	5,372	1,503	19.6	3,874	392
2003	2,574	1.41	3,631	1,740	0	5,401	1,522	19.4	3,884	362
2004	2,589	1.41	3,661	1,751	0	5,428	1,540	19.2	3,893	346
2005	2,598	1.42	3,682	1,778	0	5,453	1,558	19.1	3,901	353
2006	2,601	1.42	3,695	1,775	0	5,481	1,576	18.9	3,912	342
2007	2,612	1.42	3,720	1,793	0	5,505	1,591	18.7	3,925	350
<b>Iraq</b>										
1994	1,499	1.07	1,609	1	0	1,610	675	33.6	935	0
1995	1,499	1.07	1,609	2	0	1,611	676	32.8	935	0
1996	1,449	1.01	1,459	0	0	1,459	674	31.8	785	0
1997	1,349	0.79	1,059	200	0	1,059	674	30.9	385	0
1994-97 ave.	1,449	0.99	1,434	51	0	1,435	675	32.3	760	0
1999	1,587	1.10	1,750	455	0	2,179	727	31.5	1,452	191
2000	1,602	1.11	1,777	496	0	2,261	751	31.5	1,509	203
2001	1,617	1.12	1,803	511	0	2,324	783	32.0	1,540	194
2002	1,631	1.12	1,829	555	0	2,391	809	32.1	1,580	186
2003	1,647	1.13	1,857	620	0	2,464	836	32.2	1,625	199
2004	1,663	1.13	1,885	676	0	2,540	863	32.4	1,673	220
2005	1,678	1.14	1,911	711	0	2,604	891	32.5	1,709	238
2006	1,691	1.15	1,937	720	0	2,690	920	32.7	1,767	205
2007	1,706	1.15	1,965	794	0	2,770	949	32.8	1,818	194
<b>Japan</b>										
1994	65	3.54	230	21,101	0	21,585	4,108	32.8	17,477	2,200
1995	63	3.56	224	20,279	0	20,616	4,062	32.4	16,554	2,087
1996	59	4.00	236	20,525	0	20,873	4,107	32.7	16,766	1,975
1997	54	3.30	178	20,840	0	21,117	4,107	32.6	17,010	1,876
1994-97 ave.	60	3.60	217	20,686	0	21,048	4,096	32.6	16,952	2,035
1999	70	3.84	269	20,745	0	21,013	4,571	36.1	16,443	1,951
2000	71	3.86	274	20,759	0	21,031	4,619	36.4	16,412	1,953
2001	71	3.92	278	20,750	0	21,031	4,732	37.2	16,298	1,950
2002	72	3.92	282	20,620	0	20,912	4,742	37.2	16,169	1,940
2003	73	3.92	286	20,487	0	20,781	4,750	37.2	16,029	1,932
2004	74	3.93	291	20,329	0	20,632	4,747	37.2	15,883	1,920
2005	74	3.99	295	20,156	0	20,459	4,719	36.9	15,741	1,912
2006	75	4.00	300	19,992	0	20,302	4,711	36.9	15,592	1,902
2007	76	4.01	305	19,776	0	20,093	4,664	36.5	15,429	1,890
<b>Malaysia</b>										
1994	20	2.00	40	2,415	0	2,315	75	3.8	2,240	300
1995	23	1.87	43	2,343	0	2,436	80	4.0	2,356	250
1996	25	1.80	45	2,400	0	2,500	90	4.4	2,425	195
1997	25	1.80	45	2,200	0	2,300	100	4.8	2,225	140
1994-97 ave.	23	1.86	43	2,340	0	2,388	86	4.3	2,312	221
1999	26	1.82	48	2,698	0	2,734	104	4.8	2,630	189
2000	27	1.83	49	2,806	0	2,847	106	4.8	2,741	197
2001	28	1.84	51	3,040	0	3,075	108	4.8	2,967	213
2002	28	1.85	52	3,140	0	3,185	110	4.8	3,075	220
2003	29	1.85	54	3,248	0	3,294	113	4.8	3,182	228
2004	30	1.86	55	3,364	0	3,411	115	4.9	3,296	236
2005	30	1.87	57	3,484	0	3,533	117	4.9	3,416	244
2006	31	1.88	59	3,607	0	3,657	120	4.9	3,538	253
2007	32	1.89	61	3,735	0	3,787	122	4.9	3,664	262

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Mexico</b>										
1994	9,372	2.20	20,605	5,832	71	26,616	14,897	158.5	11,719	2,028
1995	9,833	2.43	23,848	8,461	50	30,857	15,537	162.2	15,320	3,430
1996	10,300	2.55	26,250	5,373	50	32,157	15,840	162.4	16,445	2,846
1997	10,600	2.37	25,150	6,410	500	32,260	15,790	158.9	16,770	1,646
1994-97 ave.	10,026	2.39	23,963	6,519	168	30,473	15,516	160.5	15,064	2,488
1999	10,664	2.54	27,090	8,353	0	35,381	16,176	157.2	19,205	2,229
2000	10,671	2.58	27,561	8,847	0	36,336	16,400	156.7	19,939	2,301
2001	10,681	2.62	28,010	9,336	0	37,276	16,627	156.2	20,645	2,371
2002	10,691	2.66	28,433	9,863	0	38,225	16,873	156.0	21,347	2,442
2003	10,705	2.70	28,870	10,288	0	39,093	17,110	155.6	21,980	2,507
2004	10,720	2.74	29,329	10,676	0	39,942	17,347	155.4	22,588	2,570
2005	10,735	2.78	29,813	11,054	0	40,802	17,575	155.0	23,219	2,635
2006	10,750	2.82	30,269	11,485	0	41,686	17,795	154.6	23,881	2,703
2007	10,766	2.86	30,745	11,826	0	42,509	18,016	154.3	24,482	2,765
<b>Morocco</b>										
1994	2,982	1.33	3,967	762	0	3,448	1,412	48.4	2,036	1,375
1995	1,745	0.39	680	529	0	2,449	1,271	42.7	1,172	135
1996	2,740	1.48	4,050	711	0	3,526	1,510	49.7	2,016	1,370
1997	2,365	0.65	1,545	750	0	3,295	1,510	48.7	1,785	370
1994-97 ave.	2,458	1.04	2,561	688	0	3,180	1,426	47.4	1,752	813
1999	2,643	0.88	2,327	628	0	2,949	1,512	46.9	1,437	379
2000	2,661	0.89	2,365	637	0	2,996	1,552	47.3	1,444	385
2001	2,679	0.90	2,403	653	0	3,049	1,594	47.6	1,457	392
2002	2,695	0.91	2,441	662	0	3,097	1,632	47.9	1,466	398
2003	2,715	0.91	2,483	679	0	3,154	1,669	48.1	1,483	406
2004	2,735	0.92	2,525	683	0	3,201	1,707	48.3	1,492	413
2005	2,751	0.93	2,564	696	0	3,253	1,747	48.6	1,505	420
2006	2,765	0.94	2,602	694	0	3,291	1,790	49.0	1,501	425
2007	2,783	0.95	2,644	715	0	3,350	1,831	49.2	1,520	434
<b>Pakistan</b>										
1994	1,865	1.01	1,878	0	0	1,878	1,323	9.7	555	0
1995	1,835	1.00	1,835	0	0	1,835	1,325	9.5	510	0
1996	1,880	0.99	1,860	0	0	1,860	1,330	9.2	530	0
1997	1,860	0.99	1,850	0	0	1,850	1,331	9.0	530	0
1994-97 ave.	1,860	1.00	1,856	0	0	1,856	1,327	9.4	531	0
1999	1,908	1.02	1,945	31	0	1,976	1,333	8.5	642	0
2000	1,926	1.03	1,993	61	0	2,054	1,362	8.5	693	0
2001	1,947	1.05	2,047	93	0	2,140	1,396	8.5	744	0
2002	1,969	1.07	2,104	98	0	2,202	1,404	8.3	798	0
2003	1,981	1.08	2,146	108	0	2,254	1,400	8.1	854	0
2004	1,985	1.10	2,177	127	0	2,304	1,391	7.8	912	0
2005	1,988	1.11	2,205	150	0	2,355	1,382	7.6	973	0
2006	1,991	1.12	2,235	175	0	2,410	1,373	7.4	1,036	0
2007	1,993	1.14	2,264	202	0	2,466	1,364	7.1	1,102	0
<b>Philippines</b>										
1994	2,967	1.53	4,534	136	0	4,700	1,800	24.7	2,900	145
1995	2,760	1.57	4,324	516	0	4,850	1,800	24.2	3,050	135
1996	2,730	1.56	4,250	445	0	4,745	1,800	23.7	2,945	85
1997	2,700	1.56	4,200	250	0	4,450	1,800	23.2	2,650	85
1994-97 ave.	2,789	1.55	4,327	337	0	4,686	1,800	23.9	2,886	113
1999	2,721	1.64	4,451	752	0	5,199	1,762	21.8	3,438	110
2000	2,729	1.66	4,531	789	0	5,318	1,764	21.4	3,553	112
2001	2,734	1.69	4,627	841	0	5,465	1,763	20.9	3,702	115
2002	2,743	1.72	4,711	958	0	5,665	1,758	20.5	3,907	119
2003	2,748	1.75	4,810	1,078	0	5,884	1,744	19.9	4,140	123
2004	2,757	1.79	4,929	1,210	0	6,134	1,729	19.4	4,406	128
2005	2,768	1.82	5,049	1,300	0	6,345	1,716	18.9	4,629	132
2006	2,778	1.85	5,152	1,367	0	6,516	1,703	18.5	4,812	136
2007	2,784	1.89	5,258	1,434	0	6,689	1,687	18.0	5,002	139

See note at end of table.

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Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Poland</b>										
1994	6,079	2.32	14,115	957	16	15,795	4,322	112.0	11,455	737
1995	6,170	2.79	17,242	501	13	16,956	4,625	119.7	12,318	1,511
1996	6,244	2.68	16,717	675	5	17,594	4,622	119.4	12,972	1,304
1997	6,340	2.71	17,179	600	5	17,945	4,590	118.4	13,355	1,133
1994-97 ave.	6,208	2.63	16,313	683	10	17,073	4,540	117.4	12,525	1,171
1999	6,248	2.74	17,090	666	25	17,728	4,660	119.5	13,068	1,004
2000	6,225	2.76	17,209	674	26	17,850	4,693	119.9	13,157	1,011
2001	6,216	2.79	17,326	678	25	17,973	4,728	120.3	13,243	1,017
2002	6,197	2.80	17,373	699	25	18,043	4,766	120.8	13,277	1,021
2003	6,180	2.82	17,431	723	25	18,125	4,804	121.3	13,320	1,025
2004	6,154	2.84	17,454	758	25	18,184	4,843	121.9	13,342	1,028
2005	6,138	2.85	17,493	786	25	18,250	4,882	122.4	13,368	1,032
2006	6,136	2.86	17,556	800	25	18,327	4,921	123.0	13,406	1,036
2007	6,120	2.87	17,577	839	25	18,388	4,959	123.6	13,429	1,039
<b>Russia</b>										
1994	30,151	1.50	45,100	809	1,831	43,827	14,501	97.8	29,326	6,236
1995	27,212	1.13	30,700	860	463	35,802	12,592	85.0	23,210	1,531
1996	24,851	1.27	31,646	600	349	32,397	12,860	86.9	19,591	1,031
1997	24,800	1.65	40,850	550	1,800	37,050	13,450	91.0	23,660	3,581
1994-97 ave.	26,754	1.39	37,074	705	1,111	37,269	13,351	90.2	23,947	3,095
1999	24,825	1.35	33,463	391	847	32,997	13,690	92.5	17,257	1,173
2000	24,396	1.36	33,185	485	628	33,031	13,654	92.2	18,047	1,184
2001	24,235	1.37	33,319	528	720	33,106	13,736	92.6	18,026	1,205
2002	24,051	1.39	33,442	585	702	33,301	13,864	93.4	18,164	1,229
2003	23,953	1.41	33,773	621	541	33,824	14,006	94.2	18,188	1,258
2004	23,813	1.43	34,098	716	541	34,240	14,149	95.0	18,336	1,291
2005	23,682	1.46	34,486	797	397	34,856	14,304	95.9	18,418	1,321
2006	23,514	1.48	34,864	902	392	35,342	14,496	97.0	18,612	1,353
2007	23,356	1.51	35,368	981	250	36,063	14,721	98.4	18,894	1,389
<b>Saudi Arabia</b>										
1994	520	4.38	2,279	3,934	0	7,011	204	11.2	6,808	2,184
1995	391	3.72	1,454	3,889	0	6,177	204	10.8	5,974	1,350
1996	254	2.57	654	6,873	0	6,977	204	10.5	6,773	1,900
1997	309	3.25	1,004	5,800	0	6,804	304	15.0	6,500	1,900
1994-97 ave.	369	3.66	1,348	5,124	0	6,742	229	11.9	6,514	1,834
1999	331	3.28	1,086	6,844	0	7,756	184	8.5	7,572	2,211
2000	335	3.29	1,102	6,879	0	8,101	189	8.5	7,943	2,091
2001	339	3.30	1,118	7,098	0	8,327	194	8.4	8,165	1,980
2002	345	3.32	1,147	7,360	0	8,615	198	8.3	8,449	1,872
2003	353	3.35	1,182	7,573	0	8,938	205	8.3	8,768	1,689
2004	360	3.38	1,217	7,933	0	9,217	211	8.4	9,038	1,622
2005	366	3.40	1,247	8,284	0	9,508	215	8.3	9,324	1,645
2006	372	3.43	1,274	8,661	0	9,838	217	8.1	9,674	1,742
2007	379	3.46	1,309	9,028	0	10,273	222	8.0	10,086	1,806
<b>Slovakia</b>										
1994	412	3.75	1,544	2	99	1,533	388	72.4	1,115	195
1995	403	3.78	1,522	1	47	1,486	407	75.7	1,044	185
1996	403	3.92	1,580	98	45	1,604	432	80.1	1,133	214
1997	435	4.17	1,815	0	45	1,780	432	79.8	1,295	204
1994-97 ave.	413	3.91	1,615	25	59	1,601	415	77.0	1,147	200
1999	413	4.12	1,703	34	42	1,702	443	81.0	1,259	350
2000	403	4.18	1,686	14	10	1,696	449	81.6	1,247	344
2001	401	4.24	1,698	5	16	1,690	455	82.1	1,236	341
2002	398	4.29	1,710	29	27	1,712	460	82.7	1,252	340
2003	399	4.36	1,741	33	10	1,756	466	83.2	1,290	348
2004	399	4.43	1,767	59	25	1,799	471	83.8	1,328	351
2005	398	4.48	1,785	58	7	1,827	477	84.4	1,351	359
2006	397	4.53	1,801	42	33	1,812	483	85.0	1,329	358
2007	399	4.60	1,834	37	7	1,854	488	85.6	1,365	367

See note at end of table.

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Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>South Africa</b>										
1994	3,935	1.37	5,400	633	176	7,357	3,932	94.8	3,425	900
1995	4,317	2.54	10,986	188	2,169	8,705	4,245	100.1	4,380	1,200
1996	4,342	2.19	9,525	250	1,400	8,725	4,252	98.1	4,461	850
1997	3,892	2.06	8,030	850	400	8,530	4,256	96.1	4,244	800
1994-97 ave.	4,122	2.06	8,485	480	1,036	8,329	4,171	97.3	4,128	938
1999	4,272	2.37	10,139	266	376	9,954	4,875	105.4	5,079	1,033
2000	4,314	2.39	10,316	221	340	10,171	4,991	105.6	5,211	1,059
2001	4,357	2.41	10,495	207	339	10,344	5,109	105.8	5,274	1,078
2002	4,397	2.43	10,670	222	338	10,532	5,235	106.2	5,356	1,100
2003	4,444	2.44	10,863	253	338	10,756	5,350	106.3	5,453	1,122
2004	4,491	2.46	11,058	292	338	10,992	5,467	106.4	5,522	1,142
2005	4,532	2.48	11,240	319	338	11,200	5,599	106.8	5,598	1,163
2006	4,588	2.51	11,497	262	338	11,394	5,742	107.4	5,705	1,190
2007	4,653	2.53	11,780	214	338	11,629	5,872	107.7	5,841	1,217
<b>South Korea</b>										
1994	127	3.81	484	8,966	0	9,148	512	11.4	6,882	865
1995	123	3.87	476	10,139	0	10,728	465	10.2	8,571	752
1996	123	3.88	477	8,778	0	9,285	506	11.0	6,979	722
1997	123	3.88	477	7,800	0	8,230	506	10.9	6,024	769
1994-97 ave.	124	3.86	479	8,921	0	9,348	497	10.9	7,114	777
1999	119	3.94	469	10,362	0	10,784	476	10.1	8,542	861
2000	117	3.96	463	10,736	0	11,157	468	9.8	8,898	903
2001	115	3.97	457	10,953	0	11,387	462	9.6	9,114	926
2002	113	4.00	452	11,175	0	11,605	456	9.4	9,312	948
2003	111	4.02	446	11,381	0	11,809	451	9.2	9,502	966
2004	109	4.04	440	11,583	0	12,003	446	9.0	9,683	986
2005	107	4.07	435	11,771	0	12,190	441	8.8	9,851	1,002
2006	105	4.10	430	11,948	0	12,365	437	8.7	10,007	1,015
2007	103	4.12	424	12,128	0	12,538	435	8.6	10,168	1,029
<b>Sub-Saharan Africa</b>										
1994	59,889	0.92	55,050	2,168	551	56,542	53,092	98.0	1,225	2,245
1995	61,458	0.97	59,490	787	811	59,566	55,457	99.5	1,379	2,145
1996	63,871	0.92	59,030	2,049	213	61,056	56,224	98.1	1,350	1,955
1997	61,935	0.91	56,449	2,067	100	59,016	56,258	95.5	1,265	1,355
1994-97 ave.	61,788	0.93	57,505	1,768	419	59,045	55,258	97.8	1,305	1,925
1999	61,189	0.99	60,457	1,184	575	60,943	59,627	95.7	1,316	2,309
2000	61,798	1.00	61,675	1,181	572	62,243	60,885	95.1	1,314	2,350
2001	62,704	1.01	63,326	1,105	564	63,809	62,457	94.9	1,314	2,408
2002	63,580	1.02	64,979	1,095	566	65,446	64,149	94.9	1,316	2,470
2003	64,544	1.03	66,793	1,098	580	67,240	66,011	95.0	1,317	2,541
2004	65,436	1.05	68,575	1,048	562	69,002	67,584	94.7	1,317	2,600
2005	66,161	1.06	70,228	974	569	70,574	69,185	94.3	1,318	2,659
2006	66,858	1.08	71,939	930	595	72,206	70,917	94.1	1,321	2,727
2007	67,627	1.09	73,753	900	597	73,992	72,654	93.9	1,322	2,791
<b>Taiwan</b>										
1994	84	4.46	375	6,622	0	6,498	0	0.0	6,031	1,708
1995	72	4.71	339	6,033	0	6,416	0	0.0	6,003	1,664
1996	66	4.03	266	6,012	0	6,303	0	0.0	5,898	1,639
1997	66	4.03	266	5,200	0	5,616	0	0.0	5,211	1,489
1994-97 ave.	72	4.33	312	5,967	0	6,208	0	0.0	5,786	1,625
1999	65	4.03	262	5,136	0	5,313	0	0.0	4,897	1,109
2000	62	4.03	249	5,312	0	5,724	0	0.0	5,303	946
2001	59	4.02	236	5,621	0	5,870	0	0.0	5,445	933
2002	56	4.04	225	5,926	0	6,079	0	0.0	5,651	1,005
2003	53	4.02	213	6,091	0	6,236	0	0.0	5,805	1,073
2004	50	3.90	196	6,264	0	6,464	0	0.0	5,948	1,069
2005	48	4.04	193	6,412	0	6,510	0	0.0	6,072	1,164
2006	45	4.03	183	6,591	0	6,667	0	0.0	6,224	1,271
2007	43	4.04	174	6,749	0	6,803	0	0.0	6,357	1,391

See note at end of table.

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Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Thailand</b>										
1994	1,360	2.94	4,000	256	160	3,936	61	1.0	3,875	384
1995	1,300	3.00	3,900	264	97	4,154	60	1.0	4,094	297
1996	1,360	3.01	4,100	305	50	4,355	260	4.4	4,195	297
1997	1,190	2.94	3,500	500	75	4,050	260	4.3	3,890	172
1994-97 ave.	1,303	2.98	3,875	331	96	4,124	160	2.7	4,014	288
1999	1,314	3.09	4,060	148	0	4,217	265	4.3	3,952	189
2000	1,298	3.10	4,028	46	0	4,084	268	4.3	3,816	180
2001	1,296	3.12	4,047	27	0	4,078	270	4.3	3,808	176
2002	1,299	3.14	4,085	13	0	4,101	273	4.3	3,828	173
2003	1,298	3.16	4,100	78	0	4,178	275	4.4	3,903	173
2004	1,310	3.18	4,169	104	0	4,273	278	4.4	3,995	174
2005	1,317	3.21	4,227	189	0	4,414	281	4.4	4,132	176
2006	1,314	3.22	4,237	191	0	4,431	283	4.4	4,147	173
2007	1,300	3.23	4,203	179	0	4,387	286	4.4	4,101	168
<b>Tunisia</b>										
1994	251	0.58	146	575	0	781	30	3.4	751	50
1995	201	4.16	836	450	0	1,131	50	5.5	1,031	205
1996	701	1.21	851	577	0	1,258	100	10.9	1,143	375
1997	251	0.76	191	601	0	1,122	100	10.7	1,022	45
1994-97 ave.	351	1.44	506	551	0	1,073	70	7.6	987	169
1999	414	0.78	324	569	0	892	70	7.2	822	54
2000	418	0.79	330	574	0	903	72	7.4	831	54
2001	422	0.80	336	579	0	915	75	7.5	840	55
2002	426	0.81	343	583	0	925	77	7.6	849	55
2003	430	0.81	350	589	0	938	79	7.7	858	56
2004	435	0.82	357	594	0	950	82	7.9	868	57
2005	438	0.83	364	600	0	963	86	8.1	877	57
2006	442	0.84	370	605	0	975	88	8.2	887	58
2007	446	0.85	377	612	0	989	91	8.3	897	59
<b>Turkey</b>										
1994	4,408	2.01	8,875	516	1,027	9,173	1,887	31.0	7,275	751
1995	4,503	2.08	9,360	799	161	9,532	1,805	29.2	7,755	1,217
1996	4,683	2.12	9,930	1,014	505	10,219	1,900	30.3	8,319	1,437
1997	4,778	2.16	10,330	763	805	10,430	1,900	29.8	8,530	1,157
1994-97 ave.	4,593	2.10	9,624	773	625	9,839	1,873	30.1	7,970	1,141
1999	4,688	2.20	10,325	927	437	11,062	1,653	25.1	9,410	1,189
2000	4,718	2.22	10,469	996	437	11,235	1,656	24.8	9,583	982
2001	4,745	2.24	10,609	1,077	441	11,327	1,658	24.5	9,671	900
2002	4,763	2.25	10,694	1,334	446	11,586	1,667	24.3	9,923	896
2003	4,789	2.26	10,805	1,442	450	11,732	1,674	24.1	10,061	961
2004	4,815	2.27	10,916	1,511	455	11,814	1,679	23.8	10,140	1,119
2005	4,836	2.28	11,017	1,467	459	11,793	1,686	23.6	10,111	1,351
2006	4,853	2.29	11,111	1,486	464	11,956	1,693	23.5	10,268	1,528
2007	4,877	2.30	11,218	1,550	556	12,049	1,697	23.2	10,446	1,691
<b>Ukraine</b>										
1994	6,998	2.65	18,526	148	265	19,142	3,376	66.1	15,766	2,996
1995	6,897	2.26	15,607	26	198	15,662	3,570	70.2	12,127	2,744
1996	5,335	1.78	9,510	25	225	11,190	3,360	66.3	7,810	864
1997	6,800	2.26	15,350	10	725	13,425	3,540	70.0	9,900	2,064
1994-97 ave.	6,508	2.27	14,748	52	353	14,855	3,462	68.1	11,401	2,167
1999	6,066	2.40	14,563	200	1,290	13,531	3,597	71.4	9,291	1,667
2000	6,005	2.44	14,636	273	1,366	13,648	3,559	70.7	9,443	1,562
2001	6,004	2.47	14,849	350	1,498	13,704	3,516	69.9	9,530	1,559
2002	5,996	2.51	15,042	425	1,548	13,902	3,543	70.5	9,693	1,576
2003	6,012	2.55	15,309	485	1,607	14,169	3,624	72.2	9,867	1,594
2004	6,017	2.58	15,553	555	1,660	14,426	3,706	73.9	10,029	1,616
2005	6,025	2.62	15,798	650	1,766	14,670	3,797	75.7	10,173	1,628
2006	6,023	2.66	16,010	700	1,862	14,841	3,852	76.9	10,280	1,635
2007	6,026	2.70	16,256	750	1,945	15,052	3,884	77.6	10,445	1,644

See note at end of table.

Continued---

Table 14--Coarse Grains Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Other Central &amp; Eastern Europe</b>										
1994	7,618	2.86	21,782	274	537	21,392	4,035	72.0	17,345	1,551
1995	7,289	3.25	23,663	102	2,103	21,632	4,190	75.0	17,472	1,581
1996	7,274	2.94	21,371	301	1,322	20,607	4,170	74.9	16,476	1,324
1997	7,202	3.86	27,779	140	2,000	23,909	4,145	74.5	19,700	3,324
1994-97 ave.	7,346	3.22	23,649	204	1,491	21,885	4,135	74.1	17,748	1,945
1999	7,832	3.13	24,492	174	2,563	22,070	4,292	77.0	17,778	1,858
2000	7,798	3.18	24,760	170	2,560	22,347	4,431	79.3	17,916	1,881
2001	7,690	3.22	24,757	164	2,526	22,390	4,506	80.4	17,885	1,886
2002	7,644	3.27	24,989	161	2,547	22,587	4,573	81.4	18,012	1,902
2003	7,625	3.33	25,395	161	2,590	22,935	4,618	82.0	18,317	1,933
2004	7,642	3.40	25,949	159	2,581	23,481	4,678	82.9	18,802	1,979
2005	7,655	3.45	26,422	158	2,650	23,894	4,734	83.8	19,161	2,015
2006	7,660	3.50	26,786	155	2,997	23,941	4,783	84.6	19,158	2,018
2007	7,666	3.55	27,240	163	3,398	24,001	4,821	85.2	19,180	2,022
<b>Other Former Soviet Union</b>										
1994	13,293	1.37	18,206	1,862	688	20,088	4,904	52.6	15,194	3,212
1995	10,968	1.19	13,104	1,198	875	14,541	4,085	43.6	10,463	2,098
1996	9,501	1.45	13,817	1,255	975	14,221	3,999	42.4	10,283	1,974
1997	8,788	1.60	14,095	1,325	550	14,627	3,349	35.2	10,616	2,217
1994-97 ave.	10,638	1.39	14,806	1,410	772	15,869	4,084	43.4	11,639	2,375
1999	8,966	1.61	14,401	1,714	525	15,574	3,983	41.2	10,789	1,807
2000	8,863	1.62	14,374	1,906	600	15,657	3,990	40.8	10,866	1,830
2001	8,865	1.64	14,522	1,947	650	15,787	4,032	40.9	10,946	1,862
2002	8,858	1.65	14,650	1,999	650	15,963	4,081	41.0	11,066	1,898
2003	8,888	1.67	14,862	2,063	655	16,235	4,135	41.1	11,278	1,933
2004	8,901	1.69	15,047	2,209	700	16,512	4,185	41.2	11,491	1,977
2005	8,911	1.71	15,222	2,339	750	16,785	4,233	41.2	11,706	2,003
2006	8,904	1.72	15,359	2,343	750	16,931	4,284	41.3	11,792	2,024
2007	8,909	1.74	15,535	2,415	750	17,173	4,343	41.4	11,968	2,051
<b>Other N. Africa &amp; Middle East</b>										
1994	3,012	0.87	2,627	3,986	745	5,960	1,399	25.4	4,556	731
1995	3,086	0.92	2,829	3,463	550	5,833	1,987	34.8	4,451	640
1996	2,661	1.00	2,650	5,307	600	7,232	1,627	27.6	5,800	765
1997	2,745	0.82	2,246	4,825	400	6,841	1,443	23.7	5,373	595
1994-97 ave.	2,876	0.90	2,588	4,395	574	6,467	1,614	27.9	5,045	683
1999	3,084	0.83	2,559	4,591	510	6,626	1,448	22.3	5,178	558
2000	3,092	0.84	2,592	4,740	515	6,807	1,470	22.0	5,336	568
2001	3,118	0.85	2,637	4,864	520	6,971	1,472	21.4	5,498	578
2002	3,159	0.85	2,692	5,014	526	7,167	1,481	20.9	5,686	591
2003	3,201	0.86	2,752	5,169	531	7,374	1,483	20.3	5,892	607
2004	3,253	0.87	2,822	5,326	536	7,595	1,489	19.8	6,106	624
2005	3,301	0.87	2,884	5,498	541	7,823	1,490	19.3	6,332	642
2006	3,341	0.88	2,936	5,666	547	8,038	1,484	18.7	6,555	659
2007	3,377	0.89	2,994	5,843	552	8,267	1,480	18.2	6,786	677
<b>Other South America</b>										
1994	3,605	2.12	7,658	4,502	419	11,519	4,748	38.3	6,758	1,177
1995	3,475	2.13	7,394	4,461	216	12,056	5,006	39.7	7,252	760
1996	3,452	2.16	7,473	4,762	178	12,041	5,569	43.4	6,905	776
1997	3,467	2.13	7,388	5,086	175	12,374	4,936	37.8	7,593	701
1994-97 ave.	3,500	2.14	7,478	4,703	247	11,998	5,065	39.8	7,127	854
1999	3,603	2.20	7,943	5,480	173	13,237	5,140	38.2	8,096	723
2000	3,620	2.24	8,119	5,566	174	13,497	5,257	38.5	8,243	737
2001	3,638	2.28	8,296	5,625	176	13,732	5,336	38.5	8,400	750
2002	3,664	2.31	8,482	5,696	176	13,989	5,403	38.4	8,592	763
2003	3,689	2.36	8,688	5,820	177	14,314	5,545	38.9	8,773	780
2004	3,720	2.39	8,907	5,931	176	14,645	5,707	39.5	8,937	797
2005	3,751	2.43	9,117	5,985	176	14,912	5,817	39.7	9,095	811
2006	3,783	2.46	9,298	6,009	176	15,121	5,866	39.5	9,255	821
2007	3,812	2.49	9,502	6,050	177	15,362	5,955	39.6	9,411	834

Note: Food category includes other uses in some countries.

Table 15--Corn Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	135,549	4.14	561,839	68,142	65,224	539,513	159,202	27.9	375,750	94,120
1995	134,196	3.84	515,491	62,912	70,920	543,281	160,909	27.8	366,737	65,839
1996	141,153	4.19	592,047	63,752	65,067	573,817	164,608	28.1	398,837	84,249
1997	140,095	4.13	578,529	63,020	63,572	595,906	165,233	27.8	419,788	67,002
1994-97 ave.	137,748	4.08	561,977	64,457	66,196	563,129	162,488	27.9	390,278	77,803
1999	141,785	4.38	620,681	72,182	72,182	616,553	172,398	28.2	432,598	84,434
2000	143,539	4.42	633,770	75,899	75,899	634,448	174,564	28.2	448,383	83,756
2001	143,927	4.50	647,217	78,705	78,705	648,765	176,583	28.2	460,597	82,207
2002	144,728	4.58	662,171	81,720	81,720	662,878	178,551	28.1	472,679	81,500
2003	144,988	4.65	674,616	84,664	84,664	675,790	180,586	28.1	483,481	80,326
2004	146,605	4.72	691,911	87,827	87,827	691,512	182,304	28.0	497,199	80,724
2005	147,400	4.79	706,145	90,566	90,566	705,455	184,166	27.9	509,323	81,414
2006	148,051	4.86	720,065	93,433	93,433	718,730	186,109	27.9	520,695	82,750
2007	148,558	4.93	732,211	96,895	96,895	731,483	187,910	27.8	531,532	83,478
<b>United States</b>										
1994	29,496	8.70	256,621	243	55,311	183,577	42,831	162.8	140,282	39,571
1995	26,303	7.12	187,305	419	56,589	159,887	40,073	150.9	118,930	10,819
1996	29,602	7.97	236,064	337	45,597	179,190	42,445	158.4	136,214	22,433
1997	29,834	7.97	237,897	254	41,277	195,208	44,579	164.9	148,597	24,099
1994-97 ave.	28,809	7.97	229,472	313	49,694	179,466	42,482	159.3	136,006	24,231
1999	30,688	8.26	253,631	254	57,143	195,081	47,246	171.8	147,327	28,399
2000	30,688	8.37	256,806	254	60,970	198,377	48,643	175.5	149,232	26,112
2001	30,891	8.48	261,887	254	63,510	201,170	49,532	177.2	151,137	23,573
2002	31,093	8.58	266,839	254	66,047	203,333	50,421	178.9	152,407	21,286
2003	31,296	8.69	271,920	254	68,575	205,631	51,437	181.1	153,677	19,254
2004	31,498	8.80	277,126	254	71,127	207,777	52,326	182.8	154,947	17,730
2005	31,619	8.90	281,445	254	73,024	209,437	53,342	184.8	155,582	16,968
2006	31,700	9.01	285,636	254	74,926	211,091	54,359	186.9	156,217	16,841
2007	31,700	9.11	288,938	254	76,836	212,737	55,375	188.8	156,852	16,460
<b>Algeria</b>										
1994	1	2.00	2	1,100	0	1,102	0	0.0	1,102	100
1995	1	2.00	2	488	0	540	0	0.0	540	50
1996	1	2.00	2	910	0	912	0	0.0	912	50
1997	1	2.00	2	1,000	0	1,002	0	0.0	1,002	50
1994-97 ave.	1	2.00	2	875	0	889	0	0.0	889	63
1999	1	2.00	2	1,107	0	1,109	0	0.0	1,109	66
2000	1	2.00	2	1,109	0	1,111	0	0.0	1,111	66
2001	1	1.99	2	1,111	0	1,114	0	0.0	1,114	65
2002	1	1.99	2	1,115	0	1,118	0	0.0	1,117	64
2003	1	1.99	2	1,118	0	1,121	0	0.0	1,121	63
2004	1	1.99	2	1,122	0	1,124	0	0.0	1,124	63
2005	1	1.99	2	1,125	0	1,128	0	0.0	1,128	63
2006	1	1.99	2	1,129	0	1,131	0	0.0	1,131	63
2007	1	1.99	2	1,133	0	1,135	0	0.0	1,135	63
<b>Argentina</b>										
1994	2,550	4.45	11,360	0	5,782	5,478	1,500	43.7	3,978	1,100
1995	2,700	4.11	11,100	0	7,494	4,306	1,500	43.3	2,806	400
1996	3,400	4.56	15,500	0	11,250	4,200	1,500	42.8	2,700	450
1997	3,300	5.00	16,500	1	11,700	4,750	1,300	36.7	3,300	501
1994-97 ave.	2,988	4.56	13,615	0	9,057	4,684	1,450	41.6	3,196	613
1999	3,103	4.64	14,386	0	8,913	5,447	1,330	36.7	4,117	715
2000	3,110	4.75	14,777	0	9,187	5,570	1,378	37.7	4,192	735
2001	3,090	4.89	15,109	0	9,451	5,642	1,398	37.8	4,245	751
2002	3,113	5.03	15,668	0	9,928	5,715	1,414	37.9	4,301	776
2003	3,113	5.17	16,091	0	10,291	5,780	1,422	37.7	4,359	796
2004	3,163	5.32	16,815	0	10,928	5,855	1,437	37.7	4,417	828
2005	3,207	5.46	17,521	0	11,558	5,932	1,454	37.8	4,477	859
2006	3,204	5.60	17,941	0	11,924	5,999	1,466	37.7	4,532	877
2007	3,297	5.72	18,859	0	12,770	6,047	1,473	37.6	4,574	919

See note at end of table.

Continued---

Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks		
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---	
<b>Brazil</b>											
1994	14,189	2.64	37,440	1,407	0		36,158	5,200	32.4	30,958	7,275
1995	13,767	2.36	32,480	400	110		36,780	5,250	32.3	31,530	3,265
1996	13,600	2.63	35,800	350	200		37,150	5,250	31.9	31,960	2,065
1997	12,600	2.62	33,000	750	25		34,300	5,000	30.1	29,300	1,490
1994-97 ave.	13,539	2.56	34,680	727	84		36,097	5,175	31.7	30,937	3,524
1999	12,971	2.72	35,320	1,520	25		36,746	5,015	29.6	31,731	1,597
2000	13,119	2.76	36,246	1,652	25		37,833	4,977	29.1	32,856	1,637
2001	13,265	2.82	37,458	1,775	25		39,152	4,968	28.8	34,184	1,693
2002	13,310	2.87	38,220	1,811	25		39,971	4,961	28.5	35,011	1,728
2003	13,336	2.92	38,938	1,948	25		40,827	4,920	28.0	35,907	1,762
2004	13,402	2.97	39,851	1,949	25		41,738	4,897	27.7	36,841	1,799
2005	13,462	3.03	40,735	1,958	25		42,632	4,866	27.3	37,766	1,835
2006	13,578	3.08	41,806	1,965	25		43,698	4,866	27.1	38,831	1,883
2007	13,647	3.12	42,634	1,954	25		44,526	4,855	26.8	39,671	1,920
<b>Canada</b>											
1994	955	7.37	7,043	925	346		7,650	1,600	56.1	6,050	652
1995	1,003	7.25	7,271	855	450		7,630	1,460	50.7	6,170	698
1996	1,058	6.98	7,380	897	300		7,650	1,500	51.5	6,150	1,025
1997	1,050	6.84	7,180	1,000	300		7,950	1,500	51.0	6,450	955
1994-97 ave.	1,017	7.10	7,219	919	349		7,720	1,515	52.3	6,205	833
1999	1,042	7.18	7,480	739	319		7,891	1,601	53.4	6,289	743
2000	1,035	7.21	7,461	815	323		7,948	1,616	53.4	6,332	748
2001	1,032	7.23	7,465	863	326		7,997	1,629	53.4	6,368	753
2002	1,028	7.26	7,462	937	329		8,064	1,644	53.4	6,419	759
2003	1,026	7.28	7,472	992	332		8,126	1,658	53.4	6,468	765
2004	1,021	7.30	7,456	1,066	336		8,181	1,672	53.4	6,509	770
2005	1,022	7.33	7,488	1,093	339		8,237	1,685	53.4	6,552	775
2006	1,024	7.36	7,534	1,107	343		8,292	1,698	53.4	6,595	781
2007	1,024	7.38	7,555	1,141	346		8,345	1,710	53.3	6,635	786
<b>Central America &amp; Caribbean</b>											
1994	2,110	1.34	2,819	2,079	16		4,943	2,618	38.5	2,398	222
1995	2,144	1.54	3,294	1,982	5		5,271	2,684	38.9	2,540	222
1996	2,204	1.48	3,270	2,590	0		5,804	2,820	40.2	2,879	278
1997	2,195	1.42	3,125	2,690	0		5,845	2,809	39.4	2,976	248
1994-97 ave.	2,163	1.45	3,127	2,335	5		5,466	2,733	39.3	2,698	243
1999	2,237	1.43	3,204	2,696	0		5,898	2,907	39.5	2,991	253
2000	2,258	1.44	3,256	2,741	0		5,995	2,883	38.6	3,112	255
2001	2,279	1.45	3,308	2,774	0		6,080	2,872	37.9	3,208	257
2002	2,301	1.46	3,357	2,838	0		6,192	2,891	37.6	3,301	260
2003	2,322	1.47	3,411	2,889	0		6,297	2,912	37.3	3,385	263
2004	2,343	1.48	3,465	2,969	0		6,431	2,965	37.5	3,465	266
2005	2,364	1.49	3,514	3,013	0		6,525	2,958	36.8	3,567	269
2006	2,385	1.49	3,559	3,049	0		6,606	2,930	36.0	3,675	271
2007	2,406	1.50	3,610	3,107	0		6,714	2,953	35.7	3,762	274
<b>Central &amp; Eastern Europe</b>											
1994	7,068	3.21	22,716	363	744		22,187	3,300	27.4	18,880	1,829
1995	6,848	3.62	24,773	351	2,275		22,847	3,560	29.6	19,309	1,831
1996	7,035	3.62	25,459	361	1,397		24,299	3,585	29.9	20,714	1,955
1997	6,853	4.54	31,131	370	2,925		26,618	3,515	29.3	23,020	3,878
1994-97 ave.	6,951	3.74	26,020	361	1,835		23,988	3,490	29.0	20,481	2,373
1999	7,317	3.68	26,900	437	2,420		24,891	3,634	30.2	21,256	2,199
2000	7,271	3.73	27,125	487	2,119		25,467	3,741	31.0	21,726	2,225
2001	7,169	3.79	27,157	480	2,028		25,600	3,798	31.4	21,800	2,234
2002	7,121	3.85	27,412	632	2,029		25,998	3,849	31.7	22,147	2,251
2003	7,106	3.92	27,875	600	2,043		26,401	3,884	31.9	22,516	2,282
2004	7,118	4.00	28,462	694	2,034		27,078	3,930	32.2	23,148	2,326
2005	7,125	4.06	28,949	578	2,176		27,319	3,975	32.6	23,343	2,358
2006	7,120	4.12	29,318	567	2,714		27,170	4,016	32.8	23,156	2,359
2007	7,124	4.19	29,821	566	3,373		27,013	4,044	33.0	22,968	2,360

See note at end of table.

Continued---

Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>China</b>										
1994	21,152	4.69	99,280	4,287	1,413	99,654	25,654	21.4	74,000	27,500
1995	22,767	4.92	112,000	1,476	227	108,049	27,049	22.4	81,000	32,700
1996	24,498	5.20	127,470	75	3,892	115,353	27,460	22.5	88,600	41,000
1997	23,500	4.47	105,000	250	5,000	121,250	27,000	21.9	94,000	20,000
1994-97 ave.	22,979	4.83	110,938	1,522	2,633	111,077	26,791	22.0	84,400	30,300
1999	23,562	5.47	128,781	2,927	1,176	128,594	27,083	21.6	101,510	35,197
2000	25,132	5.41	135,853	4,346	1,209	137,429	26,702	21.1	110,727	36,758
2001	24,852	5.63	139,890	5,083	1,198	143,061	26,509	20.8	116,553	37,472
2002	24,945	5.84	145,742	6,046	1,187	149,424	26,256	20.5	123,168	38,649
2003	24,512	6.07	148,904	7,252	1,156	154,556	25,889	20.1	128,667	39,093
2004	25,300	6.17	156,055	8,625	1,135	162,077	25,411	19.6	136,666	40,561
2005	25,382	6.34	161,016	10,222	1,110	169,257	25,054	19.2	144,203	41,432
2006	25,339	6.56	166,269	11,944	1,098	176,191	24,707	18.8	151,485	42,356
2007	25,189	6.76	170,225	14,201	1,068	182,784	24,294	18.4	158,489	42,930
<b>Czech Republic</b>										
1994	35	3.51	123	25	13	130	40	3.9	90	20
1995	26	4.35	113	2	0	122	70	6.8	80	13
1996	33	5.12	169	25	0	189	70	6.8	119	18
1997	35	5.80	203	35	0	203	70	6.8	135	18
1994-97 ave.	32	4.71	152	22	3	161	63	6.1	106	17
1999	35	4.40	153	37	0	190	71	6.8	120	12
2000	34	4.43	151	48	0	199	71	6.8	128	12
2001	34	4.47	151	53	0	204	71	6.8	133	12
2002	34	4.51	152	62	0	214	71	6.8	142	12
2003	34	4.53	153	63	0	216	72	6.9	144	12
2004	34	4.57	155	74	0	229	72	6.9	157	12
2005	34	4.60	155	73	0	228	72	6.9	156	12
2006	34	4.60	155	72	0	227	72	6.9	155	12
2007	34	4.63	157	71	0	228	72	6.9	156	12
<b>Egypt</b>										
1994	886	6.38	5,650	2,589	0	7,939	1,714	27.5	6,225	500
1995	902	5.93	5,353	2,225	0	7,790	1,800	28.3	5,990	288
1996	876	6.65	5,825	3,082	0	8,907	1,800	27.8	7,107	288
1997	925	6.16	5,700	3,200	0	8,900	1,700	25.8	7,000	288
1994-97 ave.	897	6.28	5,632	2,774	0	8,384	1,754	27.3	6,581	341
1999	968	6.28	6,081	3,294	0	9,363	1,917	28.0	7,446	223
2000	976	6.34	6,188	3,543	0	9,722	1,979	28.4	7,742	232
2001	981	6.61	6,482	3,662	0	10,135	2,028	28.6	8,105	241
2002	989	6.75	6,678	3,775	0	10,445	2,077	28.8	8,367	249
2003	994	6.85	6,806	3,927	0	10,727	2,129	29.0	8,595	255
2004	999	6.99	6,979	4,033	0	11,005	2,178	29.2	8,826	262
2005	1,007	7.06	7,106	4,188	0	11,287	2,227	29.4	9,058	269
2006	1,017	7.17	7,294	4,335	0	11,621	2,283	29.6	9,335	277
2007	1,023	7.32	7,486	4,495	0	11,973	2,345	30.0	9,624	285
<b>EU-15</b>										
1994	3,784	7.52	28,464	3,400	250	31,904	3,852	10.3	23,982	2,934
1995	3,732	7.83	29,224	2,700	250	32,277	3,564	9.5	24,543	2,331
1996	4,095	8.50	34,803	2,600	200	35,873	3,608	9.6	27,227	3,661
1997	4,350	8.71	37,885	2,200	400	38,220	3,631	9.6	29,630	5,126
1994-97 ave.	3,990	8.17	32,594	2,725	275	34,569	3,664	9.8	26,346	3,513
1999	4,181	8.65	36,184	2,000	250	37,849	3,702	9.8	28,429	4,163
2000	4,063	8.81	35,785	2,000	250	37,566	3,713	9.8	28,116	4,132
2001	4,065	8.92	36,257	2,000	250	37,963	3,731	9.8	28,432	4,176
2002	4,065	9.00	36,583	2,000	250	38,296	3,753	9.8	28,687	4,213
2003	4,064	9.08	36,905	2,000	250	38,620	3,774	9.8	28,933	4,248
2004	4,061	9.16	37,201	2,000	250	38,918	3,795	9.9	29,155	4,281
2005	4,069	9.27	37,730	2,000	250	39,424	3,809	9.9	29,579	4,337
2006	4,061	9.33	37,899	2,000	250	39,627	3,831	9.9	29,709	4,359
2007	4,037	9.42	38,027	2,000	250	39,762	3,848	10.0	29,768	4,374

See note at end of table.

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Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Former Soviet Union</b>										
1994	1,864	2.17	4,037	609	41	6,366	1,801	6.2	4,565	1,106
1995	2,465	2.84	7,010	440	255	6,582	2,003	6.8	4,579	1,719
1996	2,107	2.26	4,764	635	250	5,941	2,142	7.3	3,798	927
1997	3,178	3.24	10,305	615	650	9,020	2,265	7.7	6,895	2,177
1994-97 ave.	2,404	2.72	6,529	575	299	6,977	2,053	7.0	4,959	1,482
1999	2,770	2.68	7,419	648	741	7,289	2,289	7.8	5,001	1,490
2000	2,719	2.72	7,394	844	656	7,540	2,280	7.7	5,261	1,533
2001	2,713	2.76	7,475	1,032	742	7,735	2,303	7.7	5,434	1,562
2002	2,710	2.79	7,570	1,224	744	8,007	2,329	7.8	5,678	1,605
2003	2,717	2.83	7,695	1,326	811	8,185	2,361	7.9	5,824	1,630
2004	2,716	2.87	7,805	1,530	812	8,478	2,393	8.0	6,085	1,675
2005	2,710	2.91	7,899	1,602	902	8,589	2,420	8.0	6,168	1,685
2006	2,702	2.96	7,987	1,697	970	8,704	2,448	8.1	6,256	1,695
2007	2,704	3.00	8,115	1,790	1,043	8,846	2,484	8.2	6,364	1,711
<b>Hungary</b>										
1994	1,200	3.58	4,300	10	370	4,000	200	19.9	3,800	200
1995	1,040	4.42	4,600	10	500	4,100	200	20.0	3,900	210
1996	1,053	5.60	5,900	10	100	5,350	200	20.1	5,150	670
1997	1,000	6.20	6,200	10	1,200	5,000	200	20.2	4,800	680
1994-97 ave.	1,073	4.89	5,250	10	543	4,613	200	20.1	4,413	440
1999	991	5.57	5,519	0	205	5,314	205	20.9	5,109	391
2000	983	5.63	5,531	26	0	5,557	205	21.0	5,352	391
2001	979	5.69	5,571	4	0	5,575	206	21.1	5,369	391
2002	976	5.75	5,613	112	0	5,725	207	21.3	5,518	391
2003	978	5.82	5,689	67	0	5,756	207	21.4	5,549	391
2004	978	5.89	5,758	113	0	5,871	207	21.5	5,664	391
2005	977	5.94	5,807	0	54	5,753	208	21.7	5,545	391
2006	975	5.99	5,842	0	241	5,601	210	21.9	5,392	391
2007	977	6.05	5,915	0	497	5,418	211	22.1	5,207	391
<b>Indonesia</b>										
1994	3,652	1.67	6,100	1,738	56	7,047	3,000	14.7	4,047	1,100
1995	3,531	1.70	6,000	774	30	7,244	3,000	14.5	4,244	600
1996	3,550	1.83	6,500	944	0	7,344	2,900	13.8	4,450	700
1997	3,500	1.86	6,500	600	0	7,200	2,900	13.6	4,300	600
1994-97 ave.	3,558	1.76	6,275	1,014	22	7,209	2,950	14.2	4,260	750
1999	3,563	1.87	6,657	1,246	0	7,886	2,834	12.9	5,052	542
2000	3,596	1.86	6,700	1,598	0	8,271	2,782	12.5	5,489	569
2001	3,629	1.86	6,746	1,865	0	8,589	2,737	12.1	5,853	591
2002	3,664	1.86	6,800	1,961	0	8,750	2,683	11.7	6,067	602
2003	3,692	1.85	6,843	2,067	0	8,900	2,628	11.3	6,273	612
2004	3,720	1.85	6,888	2,160	0	9,039	2,566	10.9	6,473	621
2005	3,749	1.85	6,938	2,254	0	9,182	2,498	10.5	6,684	631
2006	3,779	1.85	6,993	2,348	0	9,331	2,424	10.1	6,907	641
2007	3,811	1.85	7,052	2,451	0	9,491	2,348	9.6	7,144	653
<b>Iran</b>										
1994	50	1.40	70	1,092	0	970	120	1.9	850	192
1995	50	1.40	70	1,281	0	1,331	125	1.9	1,206	212
1996	50	1.40	70	1,550	0	1,575	125	1.9	1,450	257
1997	75	1.33	100	1,500	0	1,625	125	1.8	1,500	232
1994-97 ave.	56	1.38	78	1,356	0	1,375	124	1.9	1,252	223
1999	60	1.58	94	1,345	0	1,446	112	1.6	1,335	161
2000	61	1.60	98	1,351	0	1,462	116	1.6	1,345	149
2001	63	1.62	102	1,357	0	1,469	120	1.6	1,349	140
2002	65	1.63	106	1,364	0	1,477	124	1.6	1,354	133
2003	67	1.65	111	1,372	0	1,489	128	1.6	1,361	127
2004	69	1.66	115	1,380	0	1,499	132	1.6	1,366	123
2005	71	1.68	120	1,389	0	1,508	137	1.7	1,371	124
2006	73	1.70	125	1,396	0	1,520	141	1.7	1,378	125
2007	76	1.72	130	1,401	0	1,531	146	1.7	1,386	124

See note at end of table.

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Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Iraq</b>											
1994	140	2.14	300	0	0	300	120	6.0	180	0	
1995	140	2.14	300	0	0	300	120	5.8	180	0	
1996	140	1.79	250	0	0	250	120	5.7	130	0	
1997	140	1.79	250	200	0	250	120	5.5	130	0	
1994-97 ave.	140	1.96	275	50	0	275	120	5.7	155	0	
1999	145	2.22	321	247	0	553	108	4.7	445	41	
2000	146	2.23	326	284	0	593	111	4.7	481	58	
2001	147	2.24	329	291	0	608	124	5.1	484	69	
2002	147	2.25	332	307	0	626	129	5.1	496	83	
2003	148	2.26	335	336	0	653	135	5.2	517	100	
2004	149	2.27	339	366	0	682	141	5.3	539	123	
2005	150	2.29	342	391	0	714	147	5.4	564	142	
2006	150	2.30	345	397	0	746	152	5.4	593	138	
2007	151	2.31	348	444	0	782	159	5.5	621	148	
<b>Japan</b>											
1994	1	2.00	2	16,481	0	16,450	3,750	30.0	12,700	1,189	
1995	1	2.00	2	15,976	0	16,076	3,750	29.9	12,326	1,091	
1996	1	1.00	1	15,950	0	16,050	3,800	30.2	12,250	992	
1997	1	1.00	1	15,900	0	15,900	3,800	30.2	12,100	993	
1994-97 ave.	1	1.50	2	16,077	0	16,119	3,775	30.1	12,344	1,066	
1999	1	1.00	1	15,901	0	15,896	4,264	33.7	11,633	968	
2000	1	1.00	1	15,916	0	15,916	4,312	34.0	11,604	969	
2001	1	1.00	1	15,933	0	15,933	4,425	34.8	11,508	970	
2002	1	1.00	1	15,817	0	15,824	4,435	34.8	11,390	964	
2003	1	1.00	1	15,711	0	15,719	4,443	34.8	11,275	957	
2004	1	1.00	1	15,606	0	15,613	4,440	34.8	11,173	951	
2005	1	1.00	1	15,470	0	15,479	4,412	34.5	11,067	943	
2006	1	1.00	1	15,334	0	15,344	4,404	34.5	10,940	934	
2007	1	1.00	1	15,188	0	15,197	4,357	34.1	10,841	926	
<b>Malaysia</b>											
1994	20	2.00	40	2,415	0	2,315	75	3.8	2,240	300	
1995	23	1.87	43	2,343	0	2,436	80	4.0	2,356	250	
1996	25	1.80	45	2,400	0	2,500	90	4.4	2,425	195	
1997	25	1.80	45	2,200	0	2,300	100	4.8	2,225	140	
1994-97 ave.	23	1.86	43	2,340	0	2,388	86	4.3	2,312	221	
1999	26	1.82	48	2,698	0	2,734	104	4.8	2,630	189	
2000	27	1.83	49	2,806	0	2,847	106	4.8	2,741	197	
2001	28	1.84	51	3,040	0	3,075	108	4.8	2,967	213	
2002	28	1.85	52	3,140	0	3,185	110	4.8	3,075	220	
2003	29	1.85	54	3,248	0	3,294	113	4.8	3,182	228	
2004	30	1.86	55	3,364	0	3,411	115	4.9	3,296	236	
2005	30	1.87	57	3,484	0	3,533	117	4.9	3,416	244	
2006	31	1.88	59	3,607	0	3,657	120	4.9	3,538	253	
2007	32	1.89	61	3,735	0	3,787	122	4.9	3,664	262	
<b>Mexico</b>											
1994	8,022	2.12	17,005	3,166	71	20,250	14,450	153.7	5,800	1,650	
1995	7,800	2.28	17,780	6,379	50	23,159	15,059	157.2	8,100	2,600	
1996	8,200	2.38	19,500	3,141	50	23,441	15,300	156.8	8,200	1,750	
1997	8,500	2.18	18,500	3,700	500	22,600	15,300	154.0	7,600	850	
1994-97 ave.	8,131	2.24	18,196	4,097	168	22,363	15,027	155.5	7,425	1,713	
1999	8,432	2.39	20,141	5,032	0	25,148	15,678	152.3	9,469	1,310	
2000	8,420	2.44	20,527	5,191	0	25,690	15,895	151.8	9,795	1,338	
2001	8,411	2.48	20,900	5,370	0	26,241	16,111	151.4	10,129	1,367	
2002	8,404	2.53	21,245	5,595	0	26,811	16,347	151.1	10,463	1,396	
2003	8,401	2.57	21,609	5,793	0	27,372	16,574	150.8	10,797	1,426	
2004	8,401	2.62	21,996	5,971	0	27,938	16,802	150.5	11,134	1,455	
2005	8,401	2.67	22,406	6,113	0	28,490	17,017	150.1	11,471	1,484	
2006	8,403	2.71	22,788	6,289	0	29,048	17,227	149.7	11,819	1,513	
2007	8,409	2.76	23,193	6,446	0	29,610	17,435	149.3	12,172	1,542	

See note at end of table.

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Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Morocco</b>											
1994	324	0.63	203	543	0	746	106	3.6	640	25	
1995	390	0.13	50	372	0	412	215	7.2	200	35	
1996	245	0.86	210	650	0	850	210	6.9	640	45	
1997	300	0.67	200	600	0	800	210	6.8	590	45	
1994-97 ave.	315	0.53	166	541	0	702	185	6.1	518	38	
1999	309	0.52	160	544	0	702	229	7.1	473	39	
2000	311	0.52	161	551	0	711	235	7.2	476	40	
2001	312	0.52	162	567	0	728	242	7.2	486	41	
2002	314	0.52	163	573	0	736	248	7.3	487	41	
2003	315	0.52	165	578	0	742	255	7.3	487	41	
2004	317	0.52	166	583	0	749	262	7.4	486	42	
2005	318	0.53	167	587	0	754	269	7.5	485	42	
2006	320	0.53	169	591	0	759	276	7.5	483	42	
2007	321	0.53	170	600	0	769	283	7.6	486	43	
<b>Pakistan</b>											
1994	886	1.49	1,318	0	0	1,318	843	6.2	475	0	
1995	850	1.50	1,275	0	0	1,275	845	6.0	430	0	
1996	875	1.49	1,300	0	0	1,300	850	5.9	450	0	
1997	890	1.46	1,300	0	0	1,300	850	5.8	450	0	
1994-97 ave.	875	1.48	1,298	0	0	1,298	847	6.0	451	0	
1999	928	1.49	1,386	31	0	1,417	863	5.5	554	0	
2000	951	1.51	1,435	61	0	1,496	896	5.6	600	0	
2001	977	1.53	1,490	93	0	1,583	936	5.7	648	0	
2002	1,004	1.54	1,549	98	0	1,647	950	5.6	697	0	
2003	1,020	1.56	1,591	108	0	1,699	951	5.5	749	0	
2004	1,029	1.58	1,623	127	0	1,750	948	5.3	802	0	
2005	1,037	1.59	1,653	150	0	1,803	945	5.2	858	0	
2006	1,044	1.61	1,683	175	0	1,858	942	5.0	917	0	
2007	1,052	1.63	1,714	202	0	1,916	938	4.9	978	0	
<b>Philippines</b>											
1994	2,967	1.53	4,534	136	0	4,700	1,800	24.7	2,900	145	
1995	2,760	1.57	4,324	516	0	4,850	1,800	24.2	3,050	135	
1996	2,730	1.56	4,250	445	0	4,745	1,800	23.7	2,945	85	
1997	2,700	1.56	4,200	250	0	4,450	1,800	23.2	2,650	85	
1994-97 ave.	2,789	1.55	4,327	337	0	4,686	1,800	23.9	2,886	113	
1999	2,721	1.64	4,451	752	0	5,199	1,762	21.8	3,438	110	
2000	2,729	1.66	4,531	789	0	5,318	1,764	21.4	3,553	112	
2001	2,734	1.69	4,627	841	0	5,465	1,763	20.9	3,702	115	
2002	2,743	1.72	4,711	958	0	5,665	1,758	20.5	3,907	119	
2003	2,748	1.75	4,810	1,078	0	5,884	1,744	19.9	4,140	123	
2004	2,757	1.79	4,929	1,210	0	6,134	1,729	19.4	4,406	128	
2005	2,768	1.82	5,049	1,300	0	6,345	1,716	18.9	4,629	132	
2006	2,778	1.85	5,152	1,367	0	6,516	1,703	18.5	4,812	136	
2007	2,784	1.89	5,258	1,434	0	6,689	1,687	18.0	5,002	139	
<b>Poland</b>											
1994	58	3.26	189	250	0	480	95	2.5	380	120	
1995	48	5.00	240	282	0	493	90	2.3	403	149	
1996	69	5.07	350	200	0	600	90	2.3	510	99	
1997	65	5.51	358	300	0	645	90	2.3	555	112	
1994-97 ave.	60	4.74	284	258	0	555	91	2.4	462	120	
1999	50	4.69	233	302	0	535	91	2.3	443	94	
2000	48	4.70	226	316	0	542	92	2.3	449	94	
2001	47	4.71	224	321	0	545	93	2.4	452	94	
2002	47	4.73	223	332	0	555	93	2.4	462	94	
2003	47	4.75	225	340	0	565	94	2.4	471	94	
2004	48	4.77	227	352	0	579	95	2.4	485	94	
2005	48	4.78	227	357	0	584	95	2.4	489	94	
2006	47	4.78	227	357	0	584	96	2.4	488	94	
2007	48	4.80	229	362	0	591	97	2.4	494	94	

See note at end of table.

Continued---

Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Russia</b>										
1994	524	1.72	900	218	0	2,154	850	5.7	1,304	155
1995	643	2.64	1,700	100	0	1,800	835	5.6	965	155
1996	700	1.57	1,100	200	0	1,300	935	6.3	365	155
1997	800	3.38	2,700	200	0	2,700	1,000	6.8	1,760	355
1994-97 ave.	667	2.40	1,600	180	0	1,989	905	6.1	1,099	205
1999	816	2.19	1,785	241	0	2,020	973	6.6	1,047	222
2000	785	2.21	1,736	335	0	2,066	959	6.5	1,108	227
2001	779	2.24	1,745	378	0	2,117	965	6.5	1,153	233
2002	777	2.27	1,763	446	0	2,200	975	6.6	1,225	242
2003	779	2.30	1,790	479	0	2,262	986	6.6	1,276	249
2004	776	2.33	1,809	555	0	2,354	996	6.7	1,359	259
2005	771	2.36	1,823	579	0	2,397	1,004	6.7	1,393	264
2006	767	2.40	1,838	613	0	2,446	1,015	6.8	1,431	269
2007	767	2.43	1,866	647	0	2,506	1,028	6.9	1,479	276
<b>Saudi Arabia</b>										
1994	3	1.33	4	932	0	936	4	0.2	933	10
1995	3	1.33	4	923	0	927	4	0.2	924	10
1996	3	1.33	4	1,273	0	1,277	4	0.2	1,273	10
1997	3	1.33	4	1,300	0	1,304	4	0.2	1,300	10
1994-97 ave.	3	1.33	4	1,107	0	1,111	4	0.2	1,108	10
1999	3	1.33	4	1,433	0	1,404	4	0.2	1,400	72
2000	3	1.33	4	1,483	0	1,483	4	0.2	1,480	76
2001	3	1.33	4	1,543	0	1,548	4	0.2	1,545	74
2002	3	1.33	4	1,611	0	1,619	4	0.2	1,616	71
2003	3	1.33	4	1,689	0	1,696	5	0.2	1,693	67
2004	3	1.33	4	1,780	0	1,771	5	0.2	1,768	80
2005	3	1.33	4	1,869	0	1,850	5	0.2	1,846	103
2006	3	1.33	4	1,967	0	1,919	5	0.2	1,936	155
2007	3	1.33	4	2,057	0	2,039	5	0.2	2,036	178
<b>Slovakia</b>										
1994	127	4.10	521	0	14	584	75	14.0	510	100
1995	122	4.89	597	1	25	576	75	14.0	501	97
1996	130	5.77	750	1	25	700	100	18.5	600	123
1997	140	5.36	750	0	25	725	100	18.5	625	123
1994-97 ave.	130	5.04	655	1	22	646	88	16.2	559	111
1999	139	5.35	743	0	34	709	102	18.6	607	121
2000	136	5.38	731	0	2	729	103	18.7	626	121
2001	135	5.40	729	5	0	734	104	18.7	630	121
2002	135	5.42	729	29	0	758	105	18.8	653	121
2003	135	5.45	735	33	0	768	105	18.8	662	121
2004	135	5.48	739	59	0	798	106	18.9	692	121
2005	134	5.50	739	52	0	791	107	18.9	683	121
2006	134	5.50	738	42	0	780	108	19.0	672	121
2007	135	5.53	745	37	0	782	109	19.1	673	121
<b>South Africa</b>										
1994	2,952	1.64	4,845	600	125	6,820	3,720	89.7	3,100	900
1995	3,300	3.09	10,200	180	2,000	8,080	4,000	94.4	4,000	1,200
1996	3,360	2.68	9,012	100	1,400	8,062	4,000	92.3	4,050	850
1997	2,900	2.59	7,500	750	400	7,900	4,000	90.3	3,900	800
1994-97 ave.	3,128	2.52	7,889	408	981	7,716	3,930	91.7	3,763	938
1999	3,285	2.87	9,420	252	375	9,200	4,601	99.5	4,599	1,033
2000	3,326	2.88	9,587	209	338	9,432	4,711	99.7	4,719	1,059
2001	3,368	2.90	9,757	193	338	9,593	4,822	99.9	4,776	1,078
2002	3,408	2.91	9,922	204	338	9,766	4,941	100.2	4,851	1,100
2003	3,454	2.93	10,106	227	338	9,973	5,049	100.3	4,939	1,122
2004	3,500	2.94	10,291	259	338	10,192	5,160	100.5	5,003	1,142
2005	3,541	2.96	10,464	276	338	10,381	5,285	100.8	5,072	1,163
2006	3,598	2.98	10,712	215	338	10,562	5,420	101.4	5,169	1,190
2007	3,663	3.00	10,986	163	338	10,784	5,543	101.7	5,294	1,217

See note at end of table.

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Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Sub-Saharan Africa</b>										
1994	19,061	1.28	24,491	2,009	316	26,489	25,435	46.9	1,010	1,245
1995	19,845	1.44	28,576	727	725	28,303	27,326	49.0	1,164	1,520
1996	20,248	1.29	26,058	1,994	208	28,144	26,798	46.8	1,145	1,220
1997	20,103	1.22	24,458	2,025	50	26,843	26,533	45.0	1,055	810
1994-97 ave.	19,814	1.31	25,896	1,689	325	27,445	26,523	46.9	1,094	1,199
1999	20,236	1.46	29,451	1,069	526	29,885	28,789	46.2	1,096	1,564
2000	20,327	1.47	29,879	1,043	526	30,372	29,254	45.7	1,095	1,588
2001	20,636	1.48	30,636	1,039	526	31,111	29,986	45.6	1,095	1,626
2002	20,941	1.50	31,399	1,028	526	31,861	30,741	45.5	1,096	1,666
2003	21,285	1.52	32,266	1,025	526	32,719	31,630	45.5	1,097	1,712
2004	21,612	1.53	33,089	973	526	33,500	32,319	45.3	1,097	1,748
2005	21,925	1.55	33,905	882	526	34,220	33,096	45.1	1,098	1,789
2006	22,262	1.56	34,770	838	526	35,037	33,958	45.1	1,100	1,834
2007	22,611	1.58	35,669	802	526	35,902	34,777	45.0	1,101	1,877
<b>South Korea</b>										
1994	22	4.05	89	8,223	0	8,010	0	0.0	6,260	865
1995	18	3.89	70	8,963	0	9,146	0	0.0	7,446	752
1996	18	4.00	72	8,336	0	8,438	0	0.0	6,638	722
1997	18	4.00	72	7,500	0	7,525	0	0.0	5,825	769
1994-97 ave.	19	3.99	76	8,256	0	8,280	0	0.0	6,542	777
1999	18	4.30	76	9,929	0	9,958	0	0.0	8,192	861
2000	17	4.34	76	10,418	0	10,452	0	0.0	8,661	903
2001	17	4.39	76	10,659	0	10,712	0	0.0	8,900	926
2002	17	4.43	76	10,907	0	10,961	0	0.0	9,124	948
2003	17	4.48	76	11,115	0	11,173	0	0.0	9,317	966
2004	17	4.52	76	11,344	0	11,400	0	0.0	9,524	986
2005	17	4.57	76	11,533	0	11,593	0	0.0	9,696	1,002
2006	16	4.62	76	11,684	0	11,747	0	0.0	9,827	1,015
2007	16	4.66	76	11,844	0	11,906	0	0.0	9,970	1,029
<b>Taiwan</b>										
1994	57	4.63	264	6,287	0	6,003	0	0.0	5,700	1,698
1995	56	4.88	273	5,733	0	6,050	0	0.0	5,750	1,654
1996	50	4.00	200	5,744	0	5,969	0	0.0	5,669	1,629
1997	50	4.00	200	5,000	0	5,350	0	0.0	5,050	1,479
1994-97 ave.	53	4.40	234	5,691	0	5,843	0	0.0	5,542	1,615
1999	46	4.21	194	4,843	0	4,958	0	0.0	4,598	1,066
2000	44	4.21	184	5,003	0	5,343	0	0.0	4,979	910
2001	42	4.20	174	5,293	0	5,480	0	0.0	5,112	897
2002	39	4.22	166	5,575	0	5,672	0	0.0	5,306	966
2003	37	4.20	157	5,726	0	5,817	0	0.0	5,450	1,032
2004	36	4.07	145	5,885	0	6,034	0	0.0	5,585	1,028
2005	34	4.22	143	6,021	0	6,073	0	0.0	5,700	1,119
2006	32	4.21	135	6,187	0	6,219	0	0.0	5,843	1,222
2007	31	4.21	129	6,332	0	6,345	0	0.0	5,968	1,338
<b>Thailand</b>										
1994	1,200	3.17	3,800	220	160	3,700	50	0.9	3,650	384
1995	1,140	3.25	3,700	260	97	3,950	50	0.8	3,900	297
1996	1,200	3.25	3,900	300	50	4,150	250	4.2	4,000	297
1997	1,030	3.20	3,300	500	75	3,850	250	4.2	3,700	172
1994-97 ave.	1,143	3.22	3,675	320	96	3,913	150	2.5	3,813	288
1999	1,148	3.36	3,852	148	0	4,010	255	4.2	3,754	189
2000	1,135	3.37	3,824	46	0	3,880	258	4.2	3,622	180
2001	1,134	3.39	3,845	27	0	3,876	260	4.2	3,615	176
2002	1,137	3.41	3,882	13	0	3,898	263	4.2	3,635	173
2003	1,135	3.43	3,897	78	0	3,975	265	4.2	3,709	173
2004	1,145	3.46	3,963	104	0	4,067	268	4.2	3,798	174
2005	1,152	3.49	4,020	189	0	4,207	271	4.2	3,936	176
2006	1,150	3.51	4,031	191	0	4,225	273	4.2	3,952	173
2007	1,139	3.51	4,001	179	0	4,185	276	4.2	3,909	168

See note at end of table.

Continued---

Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Tunisia</b>										
1994	1	1.00	1	224	0	230	0	0.0	230	5
1995	1	1.00	1	215	0	216	0	0.0	216	5
1996	1	1.00	1	376	0	377	0	0.0	377	5
1997	1	1.00	1	300	0	301	0	0.0	301	5
1994-97 ave.	1	1.00	1	279	0	281	0	0.0	281	5
1999	1	1.02	1	323	0	325	1	0.1	325	5
2000	1	1.02	1	330	0	331	1	0.1	331	5
2001	1	1.03	1	337	0	338	1	0.1	337	5
2002	1	1.03	1	343	0	344	1	0.1	344	5
2003	1	1.03	1	350	0	351	1	0.1	351	5
2004	1	1.04	1	356	0	357	1	0.1	358	5
2005	1	1.04	1	363	0	364	1	0.1	365	6
2006	1	1.04	1	370	0	371	1	0.1	372	6
2007	1	1.05	1	378	0	379	1	0.1	379	6
<b>Turkey</b>										
1994	480	3.54	1,700	462	3	2,200	550	9.0	1,650	161
1995	515	3.50	1,800	739	5	2,525	600	9.7	1,925	170
1996	600	3.50	2,100	850	5	2,850	600	9.6	2,250	265
1997	700	3.57	2,500	600	5	3,100	600	9.4	2,500	260
1994-97 ave.	574	3.53	2,025	663	5	2,669	588	9.4	2,081	214
1999	653	3.92	2,562	841	4	3,453	630	9.6	2,824	279
2000	660	3.98	2,624	868	4	3,576	642	9.6	2,934	191
2001	666	4.03	2,687	932	4	3,662	654	9.7	3,007	144
2002	666	4.05	2,698	1,123	4	3,805	673	9.8	3,132	156
2003	669	4.07	2,726	1,190	4	3,883	691	9.9	3,191	184
2004	672	4.09	2,753	1,244	4	3,918	710	10.1	3,208	259
2005	675	4.12	2,779	1,260	4	3,909	729	10.2	3,179	385
2006	678	4.14	2,803	1,307	4	3,975	750	10.4	3,224	515
2007	681	4.16	2,830	1,360	4	4,068	769	10.5	3,297	634
<b>Ukraine</b>										
1994	651	2.36	1,537	25	0	2,176	637	12.5	1,539	262
1995	1,161	2.92	3,392	0	50	2,779	829	16.3	1,950	825
1996	671	2.74	1,840	0	0	2,500	850	16.8	1,650	165
1997	1,650	3.21	5,300	0	400	4,125	900	17.8	3,300	940
1994-97 ave.	1,033	2.92	3,017	6	113	2,895	804	15.8	2,110	548
1999	1,204	2.97	3,579	50	541	3,078	950	18.9	2,128	654
2000	1,197	3.02	3,614	50	456	3,195	957	19.0	2,238	668
2001	1,197	3.06	3,664	100	492	3,268	970	19.3	2,299	671
2002	1,196	3.11	3,715	150	494	3,363	981	19.5	2,382	679
2003	1,197	3.15	3,774	200	561	3,414	996	19.8	2,418	678
2004	1,198	3.20	3,830	250	562	3,511	1,011	20.1	2,499	685
2005	1,198	3.24	3,882	250	602	3,537	1,025	20.4	2,511	678
2006	1,196	3.29	3,929	300	670	3,565	1,038	20.7	2,527	672
2007	1,197	3.33	3,987	350	743	3,599	1,053	21.0	2,546	667
<b>Other Central &amp; Eastern Europe</b>										
1994	5,648	3.11	17,583	78	347	16,993	2,890	51.5	14,100	1,389
1995	5,612	3.43	19,223	56	1,750	17,556	3,125	56.0	14,425	1,362
1996	5,750	3.18	18,290	125	1,272	17,460	3,125	56.1	14,335	1,045
1997	5,613	4.21	23,620	25	1,700	20,045	3,055	54.9	16,905	2,945
1994-97 ave.	5,656	3.48	19,679	71	1,267	18,014	3,049	54.6	14,941	1,685
1999	6,103	3.32	20,252	98	2,181	18,143	3,166	56.8	14,977	1,581
2000	6,070	3.38	20,487	97	2,117	18,441	3,270	58.5	15,171	1,607
2001	5,974	3.43	20,482	97	2,028	18,542	3,325	59.3	15,216	1,616
2002	5,930	3.49	20,695	97	2,029	18,746	3,373	60.1	15,372	1,633
2003	5,912	3.56	21,073	97	2,043	19,096	3,406	60.5	15,690	1,664
2004	5,924	3.64	21,583	96	2,034	19,601	3,450	61.2	16,150	1,708
2005	5,932	3.71	22,021	96	2,122	19,963	3,493	61.8	16,470	1,740
2006	5,930	3.77	22,357	96	2,473	19,979	3,530	62.4	16,449	1,741
2007	5,931	3.84	22,775	96	2,876	19,994	3,556	62.8	16,438	1,742

See note at end of table.

Continued---

Table 15--Corn Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Other Former Soviet Union</b>											
	1994	689	2.32	1,600	366	41	2,036	314	3.4	1,722	689
	1995	661	2.90	1,918	340	205	2,003	339	3.6	1,664	739
	1996	736	2.48	1,824	435	250	2,141	357	3.8	1,783	607
	1997	728	3.17	2,305	415	250	2,195	365	3.8	1,835	882
	1994-97 ave.	704	2.72	1,912	389	187	2,094	344	3.7	1,751	729
	1999	750	2.74	2,055	357	200	2,191	366	3.8	1,826	614
	2000	737	2.77	2,044	459	200	2,279	364	3.7	1,915	638
	2001	737	2.81	2,066	554	250	2,350	368	3.7	1,982	658
	2002	737	2.84	2,092	628	250	2,444	373	3.7	2,071	684
	2003	741	2.88	2,131	647	250	2,509	379	3.8	2,130	703
	2004	742	2.92	2,166	725	250	2,613	386	3.8	2,227	731
	2005	741	2.96	2,194	773	300	2,655	391	3.8	2,264	743
	2006	739	3.01	2,220	784	300	2,693	395	3.8	2,298	754
	2007	740	3.06	2,262	793	300	2,741	403	3.8	2,339	768
<b>Other N. Africa &amp; Middle East</b>											
	1994	109	2.50	273	2,109	0	2,319	462	8.4	1,852	163
	1995	112	2.44	273	1,939	0	2,305	454	8.0	1,856	70
	1996	118	2.36	278	2,492	0	2,695	616	10.5	2,209	145
	1997	118	2.36	278	2,150	0	2,498	468	7.7	1,987	75
	1994-97 ave.	114	2.41	276	2,173	0	2,454	500	8.6	1,976	113
	1999	124	2.48	307	2,282	0	2,585	475	7.3	2,111	75
	2000	126	2.52	317	2,400	0	2,713	485	7.3	2,228	79
	2001	128	2.57	328	2,501	0	2,825	487	7.1	2,339	82
	2002	130	2.61	339	2,614	0	2,950	489	6.9	2,461	86
	2003	132	2.66	352	2,714	0	3,062	488	6.7	2,574	89
	2004	135	2.71	364	2,830	0	3,191	490	6.5	2,700	93
	2005	137	2.75	377	2,933	0	3,307	491	6.4	2,816	96
	2006	139	2.80	390	3,049	0	3,435	491	6.2	2,944	100
	2007	142	2.85	403	3,161	0	3,560	490	6.0	3,070	104
<b>Other South America</b>											
	1994	2,657	2.20	5,847	4,079	377	9,345	3,692	29.8	5,640	1,076
	1995	2,470	2.22	5,492	3,939	170	9,636	3,790	30.0	5,993	701
	1996	2,511	2.26	5,678	4,368	153	9,858	4,285	33.4	5,868	736
	1997	2,500	2.23	5,580	4,705	150	10,210	3,790	29.1	6,520	661
	1994-97 ave.	2,535	2.23	5,649	4,273	213	9,762	3,889	30.6	6,005	794
	1999	2,586	2.32	5,992	5,086	150	10,916	3,889	28.9	7,026	683
	2000	2,598	2.36	6,128	5,175	150	11,139	3,974	29.1	7,166	697
	2001	2,610	2.40	6,264	5,231	151	11,331	4,024	29.0	7,309	710
	2002	2,629	2.44	6,406	5,291	151	11,534	4,055	28.8	7,480	722
	2003	2,648	2.48	6,562	5,404	151	11,798	4,155	29.1	7,644	739
	2004	2,671	2.52	6,731	5,506	150	12,070	4,280	29.6	7,789	756
	2005	2,694	2.56	6,892	5,557	151	12,285	4,352	29.7	7,933	769
	2006	2,717	2.59	7,031	5,582	151	12,451	4,368	29.4	8,084	780
	2007	2,740	2.62	7,191	5,616	152	12,643	4,417	29.4	8,226	792

Note: Food category includes other uses in some countries.

Table 16--Barley Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	73,567	2.19	161,469	14,492	15,921	167,016	30,155	5.3	121,738	27,287
1995	68,697	2.08	142,747	11,819	12,153	149,437	29,544	5.1	106,601	19,874
1996	66,337	2.32	153,714	16,582	14,356	154,312	29,190	5.0	105,194	22,573
1997	66,171	2.35	155,493	15,632	17,572	151,971	28,799	4.8	106,873	25,064
1994-97 ave.	68,693	2.23	153,356	14,631	15,001	155,684	29,422	5.1	110,102	23,700
1999	65,956	2.35	155,152	16,783	16,783	155,460	29,404	4.8	108,786	20,871
2000	65,313	2.37	154,813	16,900	16,900	155,957	29,557	4.8	109,020	19,727
2001	65,212	2.39	156,002	17,067	17,067	156,758	29,771	4.7	109,521	18,971
2002	65,368	2.41	157,767	17,376	17,376	157,939	30,012	4.7	110,312	18,798
2003	65,694	2.44	160,215	17,985	17,985	160,165	30,272	4.7	111,828	18,848
2004	65,852	2.46	161,904	18,319	18,319	161,731	30,526	4.7	112,577	19,021
2005	66,022	2.49	164,266	19,209	19,209	164,081	30,792	4.7	114,049	19,206
2006	65,997	2.50	165,309	19,386	19,386	165,189	31,048	4.7	114,693	19,326
2007	66,183	2.53	167,373	19,997	19,997	167,210	31,337	4.6	115,969	19,490
<b>United States</b>										
1994	2,698	3.03	8,162	1,434	1,442	8,726	3,518	13.4	4,966	2,451
1995	2,541	3.08	7,829	887	1,359	7,640	3,486	13.1	3,898	2,168
1996	2,739	3.15	8,616	801	671	8,531	3,309	12.3	4,786	2,383
1997	2,600	3.14	8,153	762	1,742	7,228	3,309	12.2	3,484	2,328
1994-97 ave.	2,645	3.10	8,190	971	1,304	8,031	3,406	12.8	4,284	2,333
1999	2,672	3.26	8,709	1,197	1,524	8,186	3,288	12.0	4,463	2,155
2000	2,632	3.27	8,600	1,197	1,524	8,294	3,288	11.9	4,572	2,134
2001	2,591	3.32	8,600	1,197	1,524	8,404	3,288	11.8	4,681	2,003
2002	2,632	3.35	8,818	1,197	1,524	8,534	3,309	11.7	4,790	1,960
2003	2,672	3.38	9,036	1,197	1,524	8,644	3,309	11.7	4,899	2,025
2004	2,672	3.38	9,036	1,197	1,524	8,644	3,309	11.6	4,899	2,090
2005	2,672	3.42	9,144	1,197	1,524	8,860	3,309	11.5	5,117	2,047
2006	2,713	3.45	9,362	1,197	1,524	8,970	3,309	11.4	5,225	2,112
2007	2,713	3.45	9,362	1,197	1,524	9,079	3,309	11.3	5,334	2,068
<b>Algeria</b>										
1994	360	0.67	240	296	0	536	186	6.5	350	0
1995	800	0.68	540	1	0	541	200	6.9	350	0
1996	1,000	1.30	1,300	125	0	1,425	400	13.4	1,000	0
1997	900	0.44	400	300	0	700	400	13.1	300	0
1994-97 ave.	765	0.81	620	181	0	801	297	10.0	500	0
1999	987	0.92	906	298	0	1,204	174	5.5	1,030	28
2000	991	0.92	913	295	0	1,208	178	5.5	1,029	28
2001	996	0.92	920	292	0	1,212	183	5.5	1,029	28
2002	999	0.93	925	292	0	1,217	188	5.6	1,030	28
2003	1,004	0.93	933	294	0	1,227	192	5.6	1,034	28
2004	1,010	0.93	941	295	0	1,236	197	5.6	1,038	28
2005	1,013	0.93	947	298	0	1,245	202	5.6	1,042	29
2006	1,015	0.94	951	297	0	1,248	207	5.7	1,040	29
2007	1,019	0.94	958	300	0	1,258	212	5.7	1,045	29
<b>Australia</b>										
1994	2,470	1.18	2,913	66	1,144	2,142	720	39.8	1,422	211
1995	3,111	1.87	5,823	20	3,375	2,325	900	49.3	1,425	354
1996	3,272	2.03	6,632	0	4,000	2,752	800	43.4	1,952	234
1997	3,250	1.74	5,650	0	2,700	2,800	800	43.0	2,000	384
1994-97 ave.	3,026	1.74	5,255	22	2,805	2,505	805	43.9	1,700	296
1999	2,910	1.73	5,023	0	2,421	2,636	808	42.6	1,828	300
2000	2,839	1.77	5,023	0	2,565	2,438	812	42.5	1,626	320
2001	2,850	1.81	5,155	0	2,708	2,452	816	42.3	1,635	315
2002	2,893	1.85	5,343	0	2,878	2,473	820	42.2	1,653	307
2003	2,915	1.89	5,500	0	3,010	2,492	824	42.1	1,667	305
2004	2,953	1.93	5,688	0	3,175	2,516	828	42.0	1,687	302
2005	2,986	1.97	5,872	0	3,184	2,717	833	41.9	1,885	273
2006	3,005	2.01	6,033	0	3,244	2,807	837	41.8	1,969	255
2007	3,009	2.05	6,169	0	3,521	2,635	841	41.7	1,794	268

See note at end of table.

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Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Brazil</b>											
1994	60	1.83	110	61	0	197	350	2.2	0	0	
1995	60	1.67	100	326	0	376	350	2.2	0	50	
1996	100	1.75	175	175	0	380	350	2.1	0	20	
1997	80	1.88	150	200	0	350	350	2.1	0	20	
1994-97 ave.	75	1.78	134	191	0	326	350	2.1	0	23	
1999	71	1.98	140	238	0	377	377	2.2	0	22	
2000	70	2.03	141	245	0	385	385	2.3	0	22	
2001	68	2.08	141	249	0	390	390	2.3	0	22	
2002	67	2.14	143	255	0	397	397	2.3	0	23	
2003	66	2.19	145	263	0	407	407	2.3	0	23	
2004	66	2.25	148	270	0	417	417	2.4	0	24	
2005	65	2.31	151	281	0	431	431	2.4	0	25	
2006	65	2.37	154	287	0	440	440	2.4	0	25	
2007	65	2.42	157	298	0	454	454	2.5	0	26	
<b>Canada</b>											
1994	4,092	2.86	11,690	5	2,934	10,317	760	26.7	9,557	1,820	
1995	4,365	2.99	13,035	10	2,564	10,552	783	27.2	9,769	1,749	
1996	4,888	3.18	15,562	19	3,350	10,618	798	27.4	9,818	3,362	
1997	4,700	2.90	13,650	10	3,000	11,050	795	27.0	10,200	2,972	
1994-97 ave.	4,511	2.99	13,484	11	2,962	10,634	784	27.1	9,836	2,476	
1999	4,587	3.02	13,870	10	2,262	11,596	865	28.9	10,731	2,552	
2000	4,591	3.05	14,002	10	2,471	11,551	863	28.5	10,689	2,542	
2001	4,599	3.07	14,136	10	2,509	11,621	857	28.1	10,765	2,558	
2002	4,629	3.09	14,322	10	2,565	11,741	852	27.7	10,889	2,584	
2003	4,705	3.11	14,624	10	2,742	11,864	852	27.4	11,013	2,612	
2004	4,732	3.12	14,770	10	2,832	11,934	856	27.3	11,077	2,626	
2005	4,706	3.14	14,754	10	2,735	12,011	863	27.4	11,149	2,644	
2006	4,786	3.15	15,084	10	2,937	12,131	871	27.4	11,260	2,670	
2007	4,843	3.16	15,315	10	3,074	12,229	879	27.4	11,350	2,692	
<b>Central &amp; Eastern Europe</b>											
1994	3,734	2.94	10,996	868	433	11,798	2,983	24.8	8,815	1,064	
1995	3,413	3.30	11,251	282	447	11,255	3,157	26.3	8,146	895	
1996	3,312	2.92	9,687	915	55	10,516	3,050	25.4	7,421	926	
1997	3,664	3.31	12,114	240	455	11,795	3,200	26.7	8,610	1,030	
1994-97 ave.	3,531	3.12	11,012	576	348	11,341	3,098	25.8	8,248	979	
1999	3,630	3.24	11,772	462	753	11,518	3,275	27.2	8,243	1,549	
2000	3,593	3.27	11,763	428	845	11,376	3,324	27.5	8,050	1,519	
2001	3,577	3.30	11,817	413	931	11,309	3,365	27.8	7,944	1,509	
2002	3,568	3.33	11,877	423	938	11,357	3,405	28.1	7,951	1,515	
2003	3,570	3.36	11,989	540	909	11,576	3,439	28.3	8,139	1,558	
2004	3,572	3.39	12,097	554	920	11,710	3,476	28.5	8,234	1,580	
2005	3,570	3.41	12,168	789	801	12,085	3,516	28.8	8,570	1,650	
2006	3,574	3.43	12,240	680	808	12,118	3,557	29.1	8,560	1,644	
2007	3,580	3.45	12,346	691	773	12,245	3,591	29.3	8,653	1,664	
<b>China</b>											
1994	1,395	3.16	4,411	1,365	0	5,855	2,139	1.8	1,300	899	
1995	1,283	3.19	4,089	1,399	0	5,550	1,883	1.6	1,000	837	
1996	1,300	3.08	4,000	2,050	6	5,800	2,250	1.8	1,000	1,081	
1997	1,300	3.08	4,000	2,000	0	6,000	2,450	2.0	1,000	1,081	
1994-97 ave.	1,320	3.13	4,125	1,704	2	5,801	2,181	1.8	1,075	975	
1999	1,260	3.28	4,137	1,909	0	6,042	2,487	2.0	1,294	870	
2000	1,318	3.31	4,362	1,874	0	6,189	2,461	1.9	817	917	
2001	1,283	3.35	4,300	1,925	0	6,238	2,439	1.9	895	904	
2002	1,274	3.36	4,283	1,978	0	6,264	2,413	1.9	920	901	
2003	1,243	3.43	4,264	2,088	0	6,356	2,382	1.8	987	897	
2004	1,265	3.46	4,380	2,145	0	6,501	2,347	1.8	783	921	
2005	1,264	3.49	4,410	2,266	0	6,670	2,314	1.8	764	927	
2006	1,254	3.52	4,411	2,333	0	6,744	2,280	1.7	779	927	
2007	1,240	3.56	4,413	2,464	0	6,876	2,244	1.7	780	928	

See note at end of table.

Continued---



Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Czech Republic</b>										
1994	680	3.80	2,584	0	132	2,547	672	65.1	1,875	360
1995	558	3.84	2,141	34	20	2,331	700	67.8	1,631	184
1996	600	3.77	2,262	300	0	2,562	650	63.0	1,912	184
1997	645	3.93	2,535	25	0	2,560	700	67.8	1,860	184
1994-97 ave.	621	3.83	2,381	90	38	2,500	681	65.9	1,820	228
1999	643	3.87	2,488	209	0	2,728	708	68.4	2,020	736
2000	625	3.90	2,438	199	0	2,656	712	68.6	1,944	717
2001	621	3.93	2,442	200	0	2,645	716	68.8	1,929	714
2002	618	3.97	2,451	207	0	2,655	720	69.0	1,936	717
2003	621	4.00	2,485	310	0	2,765	723	69.2	2,043	746
2004	621	4.04	2,511	316	0	2,814	725	69.4	2,089	760
2005	619	4.07	2,521	527	0	2,998	728	69.6	2,270	809
2006	618	4.10	2,531	421	0	2,962	731	69.9	2,230	799
2007	622	4.13	2,568	411	0	2,975	734	70.2	2,242	803
<b>EU-15</b>										
1994	10,974	3.98	43,687	60	5,800	41,502	90	0.2	30,495	6,917
1995	10,772	4.06	43,713	150	2,750	42,575	88	0.2	31,936	5,455
1996	11,367	4.55	51,679	100	4,000	47,420	89	0.2	32,714	5,814
1997	11,879	4.43	52,629	299	6,000	43,981	89	0.2	33,695	8,761
1994-97 ave.	11,248	4.26	47,927	152	4,638	43,870	89	0.2	32,210	6,737
1999	11,590	4.52	52,360	216	7,738	45,280	91	0.2	34,199	5,886
2000	11,248	4.58	51,570	224	7,279	45,406	91	0.2	34,354	4,995
2001	11,182	4.64	51,906	258	7,004	45,595	91	0.2	34,449	4,560
2002	11,180	4.69	52,389	247	6,944	45,684	92	0.2	34,457	4,568
2003	11,259	4.73	53,235	271	7,419	46,050	93	0.2	34,760	4,605
2004	11,228	4.77	53,560	237	7,419	46,348	93	0.2	34,997	4,635
2005	11,344	4.83	54,809	250	8,621	46,430	93	0.2	34,954	4,643
2006	11,165	4.87	54,358	250	8,491	46,145	94	0.2	34,603	4,615
2007	11,201	4.91	55,009	250	8,748	46,478	94	0.2	34,868	4,648
<b>Former Soviet Union</b>										
1994	30,766	1.73	53,096	1,656	2,289	51,433	9,475	32.4	41,958	6,597
1995	26,807	1.23	32,864	1,204	1,026	36,701	8,055	27.5	28,656	2,938
1996	21,437	1.39	29,790	875	949	31,008	7,819	26.7	23,264	1,646
1997	21,805	1.65	36,015	955	2,200	33,265	7,145	24.4	25,336	3,151
1994-97 ave.	25,204	1.51	37,941	1,173	1,616	38,102	8,124	27.7	29,804	3,583
1999	21,657	1.54	33,326	1,047	991	33,377	7,660	26.0	23,329	1,753
2000	21,325	1.56	33,193	1,185	1,094	33,277	7,619	25.7	23,770	1,760
2001	21,237	1.57	33,447	1,123	1,236	33,310	7,669	25.8	23,753	1,784
2002	21,172	1.59	33,745	1,085	1,336	33,467	7,724	25.9	23,817	1,811
2003	21,161	1.62	34,189	1,128	1,163	34,114	7,817	26.1	24,056	1,851
2004	21,107	1.64	34,600	1,099	1,213	34,452	7,904	26.3	24,205	1,885
2005	21,033	1.66	34,988	1,270	1,088	35,133	7,992	26.5	24,549	1,922
2006	20,948	1.69	35,380	1,226	1,109	35,464	8,080	26.6	24,740	1,955
2007	20,914	1.72	35,943	1,278	973	36,204	8,202	26.9	25,063	1,999
<b>Hungary</b>										
1994	423	3.66	1,550	49	55	1,504	394	39.1	1,110	190
1995	393	3.58	1,408	21	71	1,400	400	40.0	1,000	148
1996	326	2.85	930	60	0	1,000	310	31.2	600	138
1997	400	3.50	1,400	10	150	1,275	400	40.5	875	123
1994-97 ave.	386	3.43	1,322	35	69	1,295	376	37.7	896	150
1999	435	3.58	1,556	0	366	1,195	409	41.7	787	97
2000	428	3.60	1,538	0	397	1,145	417	42.7	727	93
2001	424	3.62	1,535	0	420	1,117	426	43.8	691	90
2002	422	3.64	1,534	0	394	1,138	436	44.9	702	92
2003	423	3.66	1,549	0	354	1,191	444	45.9	747	96
2004	423	3.69	1,561	0	348	1,212	453	46.9	758	98
2005	422	3.71	1,564	0	268	1,290	464	48.2	826	104
2006	420	3.72	1,562	0	252	1,309	477	49.8	832	106
2007	422	3.74	1,576	0	245	1,329	487	51.1	842	107

See note at end of table.

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Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Iran</b>										
1994	2,600	1.42	3,700	384	0	4,234	1,434	22.2	2,800	750
1995	2,500	1.32	3,300	338	0	3,838	1,400	21.2	2,438	550
1996	2,400	1.29	3,100	496	0	3,796	1,400	20.7	2,400	350
1997	2,200	1.36	3,000	800	0	3,850	1,400	20.3	2,450	300
1994-97 ave.	2,425	1.35	3,275	505	0	3,930	1,409	21.1	2,522	488
1999	2,457	1.39	3,417	369	0	3,807	1,319	18.4	2,489	395
2000	2,467	1.39	3,437	353	0	3,828	1,337	18.2	2,494	357
2001	2,476	1.40	3,458	342	0	3,847	1,354	18.0	2,497	310
2002	2,484	1.40	3,475	342	0	3,868	1,373	17.9	2,500	260
2003	2,497	1.40	3,501	361	0	3,886	1,388	17.7	2,504	235
2004	2,510	1.40	3,526	363	0	3,902	1,401	17.5	2,507	223
2005	2,517	1.41	3,543	381	0	3,918	1,414	17.3	2,510	229
2006	2,518	1.41	3,551	371	0	3,934	1,428	17.1	2,514	218
2007	2,527	1.41	3,571	384	0	3,947	1,438	16.9	2,519	226
<b>Japan</b>										
1994	62	3.63	225	1,751	0	2,025	350	2.8	1,675	912
1995	59	3.69	218	1,529	0	1,864	305	2.4	1,559	795
1996	57	4.09	233	1,529	0	1,873	300	2.4	1,573	684
1997	52	3.37	175	1,750	0	1,925	300	2.4	1,625	684
1994-97 ave.	58	3.70	213	1,640	0	1,922	314	2.5	1,608	769
1999	68	3.91	266	1,692	0	1,965	300	2.4	1,665	794
2000	69	3.94	271	1,696	0	1,966	300	2.4	1,666	795
2001	69	3.96	275	1,681	0	1,959	300	2.4	1,659	791
2002	70	3.98	279	1,668	0	1,951	300	2.4	1,650	788
2003	71	4.00	283	1,670	0	1,952	300	2.4	1,652	789
2004	72	4.03	288	1,653	0	1,944	300	2.4	1,644	785
2005	72	4.04	292	1,660	0	1,949	300	2.3	1,650	788
2006	73	4.06	297	1,649	0	1,947	300	2.3	1,647	787
2007	74	4.08	302	1,650	0	1,951	300	2.3	1,651	788
<b>Poland</b>										
1994	1,032	2.60	2,686	682	16	3,500	1,000	25.9	2,500	277
1995	1,048	3.13	3,278	197	1	3,474	1,155	29.9	2,315	277
1996	1,130	3.04	3,437	325	5	3,764	1,150	29.7	2,614	270
1997	1,244	3.11	3,874	100	5	3,950	1,150	29.7	2,800	289
1994-97 ave.	1,114	2.98	3,319	326	7	3,672	1,114	28.8	2,557	278
1999	1,153	3.09	3,560	173	5	3,727	1,176	30.1	2,551	263
2000	1,151	3.13	3,603	168	5	3,764	1,186	30.3	2,577	265
2001	1,154	3.16	3,649	166	5	3,807	1,198	30.5	2,609	268
2002	1,152	3.19	3,676	169	5	3,838	1,210	30.7	2,628	271
2003	1,148	3.22	3,692	183	5	3,868	1,222	30.9	2,646	273
2004	1,143	3.24	3,706	191	5	3,890	1,234	31.0	2,656	274
2005	1,140	3.27	3,723	209	5	3,925	1,247	31.3	2,678	277
2006	1,143	3.29	3,755	212	5	3,960	1,260	31.5	2,700	279
2007	1,138	3.30	3,760	233	5	3,986	1,272	31.7	2,714	281
<b>Russia</b>										
1994	16,404	1.65	27,000	584	1,500	24,711	5,651	38.1	19,060	2,427
1995	14,710	1.07	15,800	600	300	18,002	4,657	31.4	13,345	525
1996	11,853	1.34	15,900	300	149	16,251	4,500	30.4	11,751	325
1997	12,500	1.66	20,800	250	1,750	18,150	4,500	30.4	13,550	1,475
1994-97 ave.	13,867	1.43	19,875	434	925	19,279	4,827	32.6	14,427	1,188
1999	12,502	1.35	16,892	100	598	16,388	4,702	31.8	10,367	360
2000	12,262	1.36	16,715	100	534	16,274	4,655	31.4	10,802	367
2001	12,177	1.38	16,766	100	600	16,253	4,670	31.5	10,778	380
2002	12,109	1.39	16,857	100	652	16,291	4,692	31.6	10,772	394
2003	12,069	1.41	17,028	100	491	16,620	4,738	31.9	10,757	411
2004	12,003	1.43	17,195	100	491	16,787	4,783	32.1	10,793	428
2005	11,927	1.46	17,367	150	347	17,152	4,833	32.4	10,872	446
2006	11,847	1.48	17,565	150	342	17,354	4,887	32.7	10,981	465
2007	11,793	1.52	17,867	162	200	17,806	4,966	33.2	11,076	488

See note at end of table.

Continued---

Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Saudi Arabia</b>											
1994	317	6.39	2,025	3,002	0	5,800	200	11.0	5,600	2,174	
1995	188	6.38	1,200	2,966	0	5,000	200	10.6	4,800	1,340	
1996	71	6.34	450	5,600	0	5,500	200	10.3	5,300	1,890	
1997	126	6.35	800	4,500	0	5,300	300	14.8	5,000	1,890	
1994-97 ave.	176	6.37	1,119	4,017	0	5,400	225	11.7	5,175	1,824	
1999	135	6.41	864	5,398	0	6,131	180	8.3	5,951	2,140	
2000	137	6.41	876	5,379	0	6,380	185	8.3	6,230	2,015	
2001	138	6.42	889	5,532	0	6,530	190	8.2	6,377	1,906	
2002	142	6.43	913	5,719	0	6,736	194	8.2	6,581	1,802	
2003	147	6.43	944	5,846	0	6,970	200	8.2	6,810	1,622	
2004	152	6.44	976	6,104	0	7,160	206	8.2	6,995	1,542	
2005	156	6.45	1,003	6,356	0	7,359	210	8.1	7,191	1,542	
2006	159	6.46	1,026	6,624	0	7,605	212	7.9	7,438	1,587	
2007	164	6.46	1,057	6,891	0	7,907	217	7.9	7,736	1,628	
<b>Slovakia</b>											
1994	240	3.72	893	0	40	849	279	52.1	570	75	
1995	234	3.39	794	0	2	800	300	55.8	500	67	
1996	226	3.18	718	65	0	785	300	55.6	485	65	
1997	245	3.78	925	0	0	925	300	55.4	625	65	
1994-97 ave.	236	3.52	833	16	11	840	295	54.7	545	68	
1999	228	3.61	824	34	0	865	309	56.5	556	208	
2000	222	3.69	820	14	0	840	313	56.9	527	202	
2001	220	3.78	833	0	8	828	318	57.4	510	199	
2002	220	3.86	847	0	21	826	322	57.9	504	198	
2003	220	3.95	870	0	3	859	327	58.4	533	206	
2004	220	4.04	891	0	20	869	331	58.8	538	209	
2005	220	4.13	907	6	0	904	336	59.4	569	217	
2006	219	4.22	924	0	27	899	340	59.9	558	216	
2007	221	4.31	950	0	1	939	345	60.5	594	225	
<b>Taiwan</b>											
1994	0	0.00	0	306	0	306	0	0.0	175	0	
1995	0	0.00	0	213	0	213	0	0.0	130	0	
1996	0	0.00	0	200	0	200	0	0.0	125	0	
1997	0	0.00	0	150	0	150	0	0.0	75	0	
1994-97 ave.	0	0.00	0	217	0	217	0	0.0	126	0	
1999	0	0.00	0	220	0	215	0	0.0	191	0	
2000	0	0.00	0	230	0	230	0	0.0	207	0	
2001	0	0.00	0	236	0	236	0	0.0	212	0	
2002	0	0.00	0	248	0	248	0	0.0	220	0	
2003	0	0.00	0	254	0	254	0	0.0	226	0	
2004	0	0.00	0	261	0	261	0	0.0	232	0	
2005	0	0.00	0	267	0	267	0	0.0	236	0	
2006	0	0.00	0	273	0	273	0	0.0	242	0	
2007	0	0.00	0	280	0	280	0	0.0	248	0	
<b>Tunisia</b>											
1994	250	0.58	145	350	0	550	30	3.4	520	45	
1995	200	4.18	835	234	0	914	50	5.5	814	200	
1996	700	1.21	850	200	0	880	100	10.9	765	370	
1997	250	0.76	190	300	0	820	100	10.7	720	40	
1994-97 ave.	350	1.44	505	271	0	791	70	7.6	705	164	
1999	413	0.78	323	245	0	567	70	7.2	497	49	
2000	417	0.79	329	243	0	571	72	7.3	500	49	
2001	421	0.80	335	241	0	576	74	7.4	502	50	
2002	425	0.80	342	239	0	580	76	7.5	505	50	
2003	429	0.81	349	238	0	586	79	7.6	507	51	
2004	434	0.82	356	237	0	592	82	7.8	510	51	
2005	437	0.83	363	236	0	598	85	8.0	512	52	
2006	441	0.84	369	234	0	603	88	8.1	515	52	
2007	445	0.85	376	233	0	609	90	8.2	517	53	

See note at end of table.

Continued---

Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Turkey</b>										
1994	3,500	1.86	6,500	54	1,022	6,300	789	13.0	5,500	590
1995	3,550	1.94	6,900	60	3	6,500	800	12.9	5,700	1,047
1996	3,650	1.97	7,200	25	500	6,600	800	12.7	5,800	1,172
1997	3,650	1.97	7,200	25	800	6,700	800	12.5	5,900	897
1994-97 ave.	3,588	1.94	6,950	41	581	6,525	797	12.8	5,725	927
1999	3,619	1.98	7,157	86	429	7,007	750	11.4	6,257	898
2000	3,643	1.99	7,241	129	433	7,054	745	11.2	6,311	781
2001	3,664	2.00	7,318	140	437	7,056	740	10.9	6,321	746
2002	3,683	2.01	7,394	192	442	7,167	734	10.7	6,436	723
2003	3,706	2.02	7,476	226	446	7,230	726	10.4	6,509	749
2004	3,728	2.03	7,560	237	451	7,281	717	10.2	6,570	814
2005	3,748	2.04	7,637	177	455	7,274	709	9.9	6,571	899
2006	3,764	2.05	7,709	145	460	7,369	700	9.7	6,678	924
2007	3,785	2.06	7,791	151	552	7,368	688	9.4	6,775	946
<b>Ukraine</b>										
1994	5,092	2.85	14,508	0	215	14,301	1,483	29.0	12,818	2,091
1995	4,413	2.18	9,633	1	123	10,200	1,343	26.4	8,867	1,402
1996	3,426	1.67	5,725	0	100	6,725	1,340	26.4	5,360	302
1997	3,700	2.00	7,400	0	200	6,800	1,250	24.7	5,450	702
1994-97 ave.	4,158	2.24	9,317	0	160	9,507	1,354	26.6	8,124	1,124
1999	3,521	2.32	8,182	100	168	8,110	1,255	24.9	6,323	568
2000	3,490	2.36	8,242	150	260	8,131	1,263	25.1	6,332	569
2001	3,488	2.40	8,370	150	336	8,180	1,282	25.5	6,355	573
2002	3,487	2.44	8,498	150	384	8,259	1,300	25.9	6,406	578
2003	3,496	2.48	8,659	150	372	8,425	1,324	26.4	6,538	590
2004	3,499	2.52	8,808	150	422	8,529	1,347	26.8	6,609	597
2005	3,500	2.56	8,947	200	441	8,694	1,368	27.3	6,745	609
2006	3,498	2.59	9,075	200	467	8,801	1,388	27.7	6,823	616
2007	3,505	2.64	9,236	200	473	8,952	1,411	28.2	6,940	627
<b>Other Central &amp; Eastern Europe</b>										
1994	1,359	2.42	3,283	137	190	3,398	638	11.4	2,760	162
1995	1,180	3.08	3,630	30	353	3,250	602	10.8	2,700	219
1996	1,030	2.27	2,340	165	50	2,405	640	11.5	1,810	269
1997	1,130	2.99	3,380	105	300	3,085	650	11.7	2,450	369
1994-97 ave.	1,175	2.69	3,158	109	223	3,035	633	11.3	2,430	255
1999	1,171	2.86	3,344	46	382	3,003	674	12.1	2,329	246
2000	1,167	2.88	3,364	47	443	2,971	695	12.4	2,275	243
2001	1,157	2.90	3,358	47	498	2,912	707	12.6	2,205	238
2002	1,156	2.91	3,369	47	518	2,899	717	12.8	2,181	237
2003	1,158	2.93	3,393	47	547	2,893	724	12.9	2,170	237
2004	1,164	2.95	3,428	47	547	2,925	733	13.0	2,193	240
2005	1,169	2.95	3,453	47	528	2,969	741	13.1	2,227	243
2006	1,173	2.96	3,468	47	524	2,989	749	13.2	2,240	245
2007	1,177	2.97	3,492	47	522	3,015	754	13.3	2,261	247
<b>Other Former Soviet Union</b>										
1994	9,270	1.25	11,588	1,072	574	12,421	2,341	25.1	10,080	2,079
1995	7,684	0.97	7,431	603	603	8,499	2,055	21.9	6,444	1,011
1996	6,158	1.33	8,165	575	700	8,032	1,979	21.0	6,153	1,019
1997	5,605	1.39	7,815	705	250	8,315	1,395	14.7	6,336	974
1994-97 ave.	7,179	1.22	8,750	739	532	9,317	1,943	20.7	7,253	1,271
1999	5,634	1.46	8,252	847	225	8,879	1,703	17.6	6,639	825
2000	5,573	1.48	8,236	935	300	8,872	1,701	17.4	6,636	824
2001	5,572	1.49	8,311	873	300	8,877	1,717	17.4	6,620	831
2002	5,576	1.50	8,390	835	300	8,917	1,732	17.4	6,639	839
2003	5,596	1.52	8,502	878	300	9,069	1,755	17.4	6,761	850
2004	5,605	1.53	8,597	849	300	9,136	1,774	17.4	6,803	860
2005	5,606	1.55	8,674	920	300	9,287	1,791	17.4	6,932	867
2006	5,603	1.56	8,740	876	300	9,309	1,805	17.4	6,936	874
2007	5,616	1.57	8,840	916	300	9,446	1,825	17.4	7,047	884

See note at end of table.

Continued---

Table 16--Barley Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Other N. Africa &amp; Middle East</b>											
1994	6,367	1.10	7,020	1,907	745	7,054	2,464	14.8	4,590	1,905	
1995	5,150	0.79	4,064	1,271	550	6,033	2,774	16.2	3,873	657	
1996	5,803	1.21	7,012	2,520	600	7,657	2,601	14.8	5,121	1,932	
1997	5,357	0.69	3,708	2,500	400	6,908	2,540	14.1	4,386	832	
1994-97 ave.	5,669	0.96	5,451	2,050	574	6,913	2,595	15.0	4,493	1,332	
1999	6,196	0.88	5,453	2,208	510	7,123	2,559	13.6	4,565	958	
2000	6,241	0.89	5,543	2,227	515	7,247	2,631	13.6	4,614	967	
2001	6,305	0.90	5,645	2,248	520	7,384	2,694	13.6	4,684	956	
2002	6,379	0.90	5,755	2,299	526	7,533	2,755	13.6	4,773	951	
2003	6,459	0.91	5,872	2,390	531	7,715	2,814	13.6	4,898	967	
2004	6,547	0.92	5,997	2,447	536	7,891	2,875	13.6	5,009	984	
2005	6,630	0.92	6,114	2,525	541	8,077	2,938	13.6	5,131	1,005	
2006	6,700	0.93	6,221	2,570	547	8,254	3,003	13.6	5,245	994	
2007	6,773	0.94	6,338	2,659	552	8,445	3,066	13.6	5,371	994	
<b>Other South America</b>											
1994	573	1.74	998	344	61	1,295	1,010	6.4	285	120	
1995	622	1.68	1,045	346	11	1,413	1,158	7.2	305	87	
1996	663	1.89	1,253	366	200	1,431	1,151	7.0	220	75	
1997	713	2.31	1,645	286	250	1,631	1,091	6.6	420	125	
1994-97 ave.	643	1.92	1,235	336	131	1,443	1,103	6.8	308	102	
1999	721	1.95	1,406	301	145	1,562	1,191	7.0	371	21	
2000	736	1.99	1,465	302	164	1,603	1,224	7.1	378	21	
2001	748	2.04	1,523	301	188	1,636	1,253	7.1	384	21	
2002	760	2.08	1,584	302	212	1,674	1,286	7.2	388	22	
2003	770	2.13	1,641	310	230	1,721	1,327	7.4	393	22	
2004	775	2.18	1,690	311	238	1,763	1,363	7.5	399	22	
2005	782	2.23	1,742	314	249	1,807	1,402	7.6	405	22	
2006	786	2.27	1,787	311	255	1,843	1,433	7.6	411	22	
2007	794	2.32	1,841	312	269	1,884	1,469	7.7	415	23	

Note: Food category includes other uses in some countries.

Table 17--Sorghum Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>World</b>										
1994	41,386	1.42	58,786	6,148	6,523	58,756	24,226	55.5	32,974	4,158
1995	41,067	1.37	56,062	6,246	6,813	57,585	24,823	56.3	30,753	2,705
1996	44,603	1.55	69,338	6,019	6,444	67,653	28,512	60.6	36,825	4,392
1997	41,095	1.56	64,029	6,398	6,810	64,965	28,585	59.7	36,378	3,456
1994-97 ave.	42,038	1.48	62,054	6,203	6,648	62,240	26,537	58.0	34,233	3,678
1999	42,610	1.54	65,717	7,197	7,188	65,260	28,687	57.9	33,957	4,328
2000	42,836	1.56	67,015	7,549	7,540	66,703	28,969	57.3	35,102	4,650
2001	43,020	1.57	67,619	7,788	7,779	67,572	29,348	56.8	35,626	4,706
2002	43,117	1.58	68,154	8,122	8,113	68,487	29,772	56.5	36,171	4,382
2003	43,347	1.60	69,210	8,321	8,310	69,419	30,270	56.1	36,673	4,183
2004	43,647	1.62	70,517	8,517	8,505	70,470	30,698	55.8	37,244	4,242
2005	43,789	1.63	71,491	8,712	8,700	71,321	31,058	55.3	37,772	4,424
2006	43,857	1.64	72,103	8,948	8,936	72,182	31,479	54.9	38,277	4,357
2007	43,997	1.66	73,053	9,066	9,053	72,887	31,885	54.4	38,580	4,535
<b>United States</b>										
1994	3,609	4.57	16,491	0	5,657	10,223	38	0.1	10,156	1,819
1995	3,350	3.49	11,694	0	5,025	8,021	76	0.3	7,740	467
1996	4,816	4.24	20,396	1	5,217	14,441	965	3.6	13,426	1,206
1997	3,800	4.37	16,590	0	5,080	11,686	838	3.1	10,795	1,030
1994-97 ave.	3,894	4.18	16,293	0	5,245	11,093	479	1.8	10,529	1,131
1999	3,725	4.33	16,130	0	5,962	9,779	838	3.0	8,890	1,550
2000	3,806	4.37	16,638	0	6,340	10,045	838	3.0	9,144	1,803
2001	3,806	4.40	16,765	0	6,600	10,164	838	3.0	9,271	1,804
2002	3,806	4.44	16,892	0	6,989	10,285	838	3.0	9,398	1,422
2003	3,887	4.48	17,400	0	7,230	10,423	838	2.9	9,525	1,169
2004	3,968	4.51	17,908	0	7,482	10,427	838	2.9	9,525	1,168
2005	4,049	4.55	18,416	0	7,748	10,540	838	2.9	9,652	1,296
2006	4,049	4.58	18,543	0	7,993	10,677	838	2.9	9,779	1,169
2007	4,089	4.63	18,924	0	8,134	10,663	838	2.8	9,779	1,296
<b>Argentina</b>										
1994	468	3.53	1,650	0	192	1,608	100	2.9	1,508	250
1995	632	3.32	2,100	0	800	1,350	100	2.9	1,250	200
1996	675	3.70	2,500	4	798	1,656	50	1.4	1,606	250
1997	750	4.27	3,200	0	1,200	1,900	50	1.4	1,850	350
1994-97 ave.	631	3.74	2,363	1	748	1,629	75	2.2	1,554	263
1999	563	3.72	2,096	0	601	1,489	52	1.4	1,438	211
2000	567	3.74	2,123	0	607	1,513	53	1.5	1,460	214
2001	564	3.79	2,136	0	605	1,529	54	1.5	1,475	216
2002	552	3.84	2,117	0	581	1,538	55	1.5	1,483	214
2003	538	3.88	2,089	0	546	1,546	55	1.4	1,491	211
2004	533	3.94	2,099	0	534	1,564	55	1.5	1,509	212
2005	523	3.98	2,083	0	501	1,583	56	1.5	1,528	211
2006	520	4.02	2,092	0	489	1,602	57	1.5	1,545	213
2007	517	4.07	2,102	0	486	1,615	57	1.5	1,558	214
<b>Australia</b>										
1994	686	1.85	1,272	44	50	1,266	34	1.9	1,232	100
1995	652	2.38	1,555	0	537	1,018	30	1.6	988	100
1996	564	2.15	1,212	0	150	1,062	25	1.4	1,036	100
1997	650	2.00	1,300	0	250	1,050	50	2.7	1,025	100
1994-97 ave.	638	2.09	1,335	11	247	1,099	35	1.9	1,070	100
1999	653	2.19	1,429	0	330	1,095	51	2.7	1,044	126
2000	643	2.20	1,416	0	295	1,118	51	2.7	1,067	129
2001	642	2.20	1,415	0	278	1,135	51	2.7	1,083	131
2002	631	2.20	1,390	0	245	1,144	52	2.7	1,092	132
2003	619	2.21	1,367	0	216	1,151	52	2.6	1,099	133
2004	616	2.21	1,361	0	195	1,164	52	2.6	1,113	134
2005	607	2.21	1,342	0	159	1,181	52	2.6	1,129	136
2006	607	2.21	1,344	0	146	1,196	52	2.6	1,143	138
2007	605	2.22	1,343	0	136	1,206	52	2.6	1,153	140

See note at end of table.

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Table 17--Sorghum Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>China</b>										
1994	1,370	4.60	6,300	18	188	6,355	1,355	1.1	5,000	325
1995	1,216	3.91	4,755	0	28	4,927	1,300	1.1	3,627	125
1996	1,292	4.39	5,676	0	99	5,377	2,130	1.7	3,250	325
1997	1,230	4.47	5,500	0	25	5,675	2,001	1.6	3,674	125
1994-97 ave.	1,277	4.35	5,558	5	85	5,584	1,697	1.4	3,888	225
1999	1,280	4.66	5,960	0	38	5,919	1,987	1.6	3,933	240
2000	1,332	4.70	6,257	0	40	6,205	1,960	1.6	4,244	252
2001	1,282	4.74	6,073	0	38	6,043	1,928	1.5	4,115	244
2002	1,251	4.75	5,941	0	37	5,909	1,894	1.5	4,015	239
2003	1,195	4.88	5,835	0	35	5,804	1,858	1.4	3,946	235
2004	1,203	4.95	5,958	0	35	5,918	1,822	1.4	4,095	240
2005	1,176	5.00	5,879	0	33	5,849	1,786	1.4	4,063	237
2006	1,143	5.04	5,759	0	32	5,732	1,750	1.3	3,982	232
2007	1,105	5.13	5,671	0	30	5,645	1,712	1.3	3,932	228
<b>India</b>										
1994	12,800	0.72	9,200	0	60	9,340	7,106	7.6	1,300	100
1995	11,440	0.83	9,550	0	0	9,550	7,095	7.4	1,500	100
1996	11,700	0.90	10,500	0	20	10,280	7,752	8.0	1,500	300
1997	11,200	0.80	9,000	0	0	9,100	7,786	7.9	1,700	200
1994-97 ave.	11,785	0.81	9,563	0	20	9,568	7,435	7.7	1,500	175
1999	12,025	0.89	10,747	0	0	10,740	7,767	7.7	1,925	301
2000	11,997	0.90	10,766	0	0	10,766	7,706	7.5	2,019	301
2001	11,934	0.91	10,818	0	0	10,816	7,657	7.3	2,125	303
2002	11,798	0.92	10,802	0	0	10,803	7,566	7.2	2,215	302
2003	11,717	0.93	10,859	0	0	10,857	7,516	7.0	2,326	304
2004	11,640	0.94	10,899	0	0	10,898	7,459	6.9	2,431	305
2005	11,576	0.95	10,949	0	0	10,947	7,405	6.7	2,543	307
2006	11,499	0.96	10,985	0	0	10,984	7,341	6.6	2,652	308
2007	11,433	0.97	11,034	0	0	11,033	7,284	6.5	2,765	309
<b>Japan</b>										
1994	0	0.00	0	2,334	0	2,577	0	0.0	2,577	71
1995	0	0.00	0	2,298	0	2,198	0	0.0	2,198	171
1996	0	0.00	0	2,597	0	2,500	0	0.0	2,500	268
1997	0	0.00	0	2,700	0	2,800	0	0.0	2,800	168
1994-97 ave.	0	0.00	0	2,482	0	2,519	0	0.0	2,519	170
1999	0	0.00	0	2,661	0	2,659	0	0.0	2,659	160
2000	0	0.00	0	2,657	0	2,657	0	0.0	2,657	159
2001	0	0.00	0	2,647	0	2,648	0	0.0	2,648	159
2002	0	0.00	0	2,648	0	2,648	0	0.0	2,648	159
2003	0	0.00	0	2,621	0	2,623	0	0.0	2,622	157
2004	0	0.00	0	2,587	0	2,589	0	0.0	2,589	155
2005	0	0.00	0	2,545	0	2,548	0	0.0	2,547	153
2006	0	0.00	0	2,528	0	2,529	0	0.0	2,529	152
2007	0	0.00	0	2,458	0	2,462	0	0.0	2,462	148
<b>Mexico</b>										
1994	1,000	3.00	3,000	2,544	0	5,644	0	0.0	5,644	291
1995	1,733	3.21	5,568	1,764	0	6,900	0	0.0	6,900	723
1996	1,800	3.44	6,200	2,091	0	8,000	0	0.0	8,000	1,014
1997	1,800	3.44	6,200	2,500	0	9,000	0	0.0	9,000	714
1994-97 ave.	1,583	3.31	5,242	2,225	0	7,386	0	0.0	7,386	686
1999	1,934	3.33	6,447	3,151	0	9,562	0	0.0	9,562	852
2000	1,952	3.34	6,526	3,477	0	9,961	0	0.0	9,963	894
2001	1,966	3.35	6,591	3,781	0	10,332	0	0.0	10,329	934
2002	1,979	3.36	6,656	4,080	0	10,696	0	0.0	10,692	974
2003	1,991	3.37	6,719	4,302	0	10,987	0	0.0	10,984	1,008
2004	2,002	3.39	6,780	4,505	0	11,253	0	0.0	11,249	1,040
2005	2,013	3.40	6,845	4,732	0	11,543	0	0.0	11,536	1,074
2006	2,023	3.42	6,909	4,977	0	11,849	0	0.0	11,842	1,111
2007	2,032	3.43	6,973	5,149	0	12,091	0	0.0	12,082	1,142

See note at end of table.

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Table 17--Sorghum Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha		---	1,000 tons	---	Kgs.	---	1,000 tons	---
<b>Saudi Arabia</b>										
1994	200	1.25	250	0	0	275	0	0.0	275	0
1995	200	1.25	250	0	0	250	0	0.0	250	0
1996	180	1.11	200	0	0	200	0	0.0	200	0
1997	180	1.11	200	0	0	200	0	0.0	200	0
1994-97 ave.	190	1.18	225	0	0	231	0	0.0	231	0
1999	193	1.13	219	13	0	221	0	0.0	221	0
2000	196	1.14	222	17	0	239	0	0.0	233	0
2001	198	1.14	226	23	0	249	0	0.0	243	0
2002	200	1.15	230	30	0	260	0	0.0	253	0
2003	203	1.15	234	38	0	272	0	0.0	265	0
2004	206	1.16	238	49	0	287	0	0.0	275	0
2005	208	1.16	241	59	0	300	0	0.0	287	0
2006	210	1.16	244	70	0	314	0	0.0	300	0
2007	212	1.17	248	80	0	328	0	0.0	315	0
<b>South Africa</b>										
1994	143	1.68	240	13	0	253	88	2.1	165	0
1995	174	2.56	445	0	126	319	104	2.5	215	0
1996	160	1.88	300	0	0	300	100	2.3	200	0
1997	140	2.14	300	0	0	300	100	2.3	200	0
1994-97 ave.	154	2.08	321	3	32	293	98	2.3	195	0
1999	158	2.35	372	0	1	380	121	2.6	258	0
2000	158	2.38	376	0	2	374	124	2.6	264	0
2001	158	2.40	380	0	1	379	127	2.6	266	0
2002	158	2.43	384	1	0	385	130	2.6	270	0
2003	159	2.45	389	2	0	391	133	2.6	274	0
2004	159	2.47	393	5	0	398	135	2.6	276	0
2005	159	2.50	397	8	0	405	139	2.6	279	0
2006	159	2.52	401	9	0	410	142	2.7	284	0
2007	159	2.55	405	9	0	414	146	2.7	289	0
<b>Sub-Saharan Africa</b>										
1994	18,533	0.84	15,531	159	235	15,005	14,759	27.3	215	1,000
1995	19,113	0.80	15,211	60	86	15,560	15,313	27.5	215	625
1996	20,929	0.84	17,550	50	5	17,485	16,617	29.0	205	735
1997	18,805	0.89	16,782	42	50	16,964	16,986	28.8	210	545
1994-97 ave.	19,345	0.84	16,269	78	94	16,254	15,919	28.2	211	726
1999	20,048	0.86	17,318	45	50	17,305	17,086	27.4	220	692
2000	20,171	0.88	17,686	71	50	17,692	17,445	27.2	220	707
2001	20,474	0.89	18,212	0	51	18,143	17,899	27.2	220	725
2002	20,760	0.90	18,734	0	59	18,654	18,436	27.3	220	746
2003	21,066	0.92	19,286	0	77	19,186	19,014	27.4	220	769
2004	21,354	0.93	19,833	0	56	19,756	19,527	27.4	220	790
2005	21,523	0.94	20,280	0	56	20,206	19,970	27.3	220	808
2006	21,707	0.96	20,771	0	72	20,679	20,487	27.3	221	828
2007	21,918	0.97	21,298	0	63	21,215	20,982	27.2	221	848
<b>Taiwan</b>										
1994	26	4.23	110	29	0	188	0	0.0	155	10
1995	15	4.33	65	87	0	152	0	0.0	122	10
1996	15	4.33	65	68	0	133	0	0.0	103	10
1997	15	4.33	65	50	0	115	0	0.0	85	10
1994-97 ave.	18	4.30	76	59	0	147	0	0.0	116	10
1999	18	3.71	68	73	0	139	0	0.0	108	43
2000	17	3.70	65	79	0	150	0	0.0	117	36
2001	17	3.70	61	92	0	154	0	0.0	120	36
2002	16	3.71	58	103	0	159	0	0.0	125	39
2003	15	3.70	55	110	0	163	0	0.0	128	41
2004	14	3.58	51	117	0	168	0	0.0	131	41
2005	13	3.71	50	123	0	169	0	0.0	134	45
2006	13	3.70	47	130	0	173	0	0.0	137	49
2007	12	3.71	45	136	0	177	0	0.0	140	53

See note at end of table.

Continued---



Table 17--Sorghum Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks	
						Total	Food	Food/cap			
	1,000 ha	Tons/ha		---	1,000 tons	---		Kgs.	---	1,000 tons	---
<b>Other N. Africa &amp; Middle East</b>											
1994	660	1.88	1,244	214	0	1,460	444	8.1	1,016	58	
1995	637	2.00	1,272	432	0	1,704	462	8.1	1,242	58	
1996	633	1.97	1,245	457	0	1,702	450	7.6	1,252	58	
1997	640	1.96	1,255	400	0	1,660	450	7.4	1,210	53	
1994-97 ave.	643	1.95	1,254	376	0	1,632	452	7.8	1,180	57	
1999	635	1.98	1,257	422	0	1,679	444	6.8	1,235	54	
2000	627	2.01	1,261	437	0	1,698	443	6.6	1,255	54	
2001	619	2.04	1,264	447	0	1,711	440	6.4	1,273	55	
2002	613	2.07	1,271	462	0	1,732	442	6.2	1,292	55	
2003	608	2.11	1,280	473	0	1,753	441	6.0	1,313	55	
2004	603	2.14	1,288	485	0	1,773	439	5.8	1,333	55	
2005	596	2.17	1,292	495	0	1,787	435	5.6	1,352	55	
2006	589	2.19	1,293	503	0	1,796	429	5.4	1,368	55	
2007	584	2.22	1,297	515	0	1,812	425	5.2	1,388	55	
<b>Other South America</b>											
1994	589	2.13	1,256	47	31	1,282	19	0.2	1,263	20	
1995	613	2.18	1,338	140	46	1,422	18	0.2	1,404	30	
1996	539	2.15	1,157	53	25	1,185	96	0.8	1,167	30	
1997	550	2.11	1,160	60	25	1,195	22	0.2	1,173	30	
1994-97 ave.	573	2.14	1,228	75	32	1,271	39	0.3	1,252	28	
1999	554	2.14	1,185	32	23	1,194	23	0.2	1,171	30	
2000	549	2.16	1,187	28	24	1,191	23	0.2	1,168	30	
2001	539	2.19	1,182	31	25	1,187	23	0.2	1,165	30	
2002	532	2.22	1,182	39	25	1,195	23	0.2	1,172	31	
2003	526	2.26	1,188	38	26	1,200	23	0.2	1,176	31	
2004	523	2.29	1,195	42	26	1,210	24	0.2	1,187	32	
2005	518	2.31	1,198	41	25	1,213	24	0.2	1,190	32	
2006	512	2.33	1,194	40	25	1,209	24	0.2	1,185	32	
2007	506	2.36	1,194	42	25	1,210	24	0.2	1,187	33	

Note: Food category includes other uses in some countries.

# Soybeans and Products

World trade in both total oilseeds and soybeans is projected to increase faster during 1997-2007 than during the 1980s, but much more slowly than in the early 1990s. Trade growth for oilmeals, including soybean meal, is projected to remain relatively strong, but slower than both the 1980s and the early 1990s. During 1997-2007, global exports of soybeans and meal are projected to rise at annual rates of 1.2 and 2.2 percent, reaching 44.3 and 44.1 million tons, respectively, by 2007. Combined exports of soybeans and meal, on a soybean-equivalent basis, are projected

at 88.2 million tons by 2000 and 100.1 million tons by 2007.

World vegetable oil trade is projected to grow 2.7 percent annually during 1997-2007, less than the rates achieved in the 1980s and the early 1990s. Soybean oil trade is projected to slow even more than total vegetable oil trade. Soybean oil trade growth is projected at 1.8 percent during 1997-2007, compared with about 9 percent in the early 1990s when trade responded to U.S. and EU subsidies and sharp import

Figure 21  
**Soybeans: Historical and projected world area and yield**

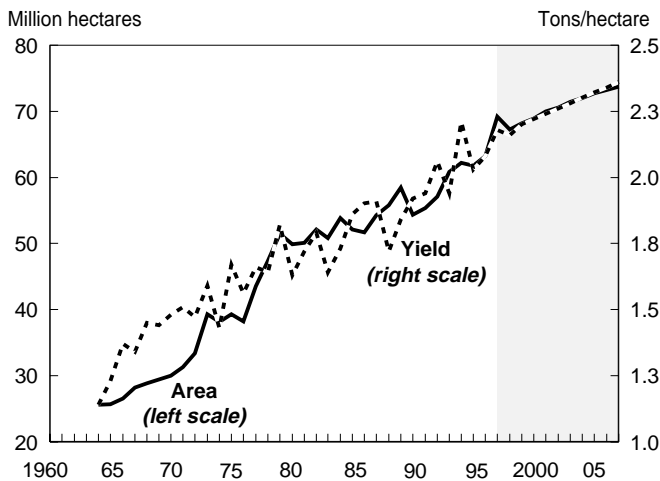
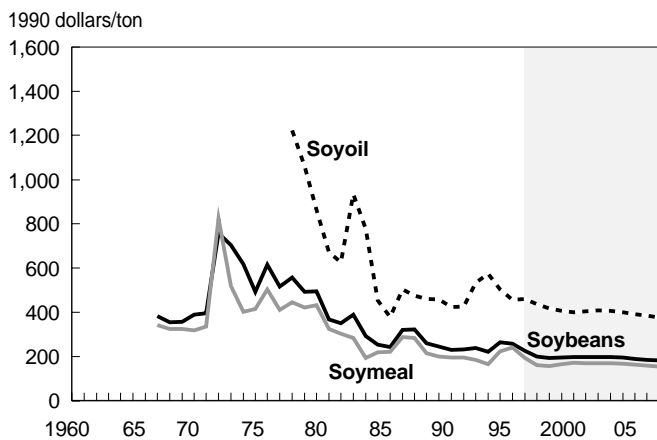


Figure 22  
**Soy products: Historical and projected real prices**



Soybeans=U.S., cif Europe; Soymeal=U.S., cif Europe; Soyoil=U.S., cif Europe

Figure 23  
**Soybeans: Historical and projected world supply and use**

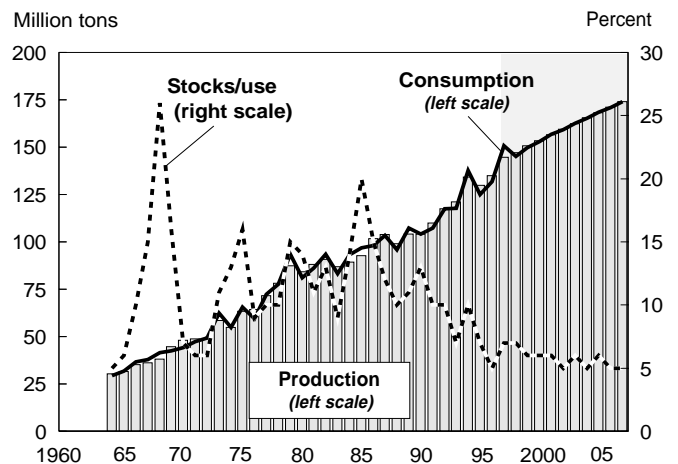


Figure 24  
**Soy products: Historical and projected price ratios**

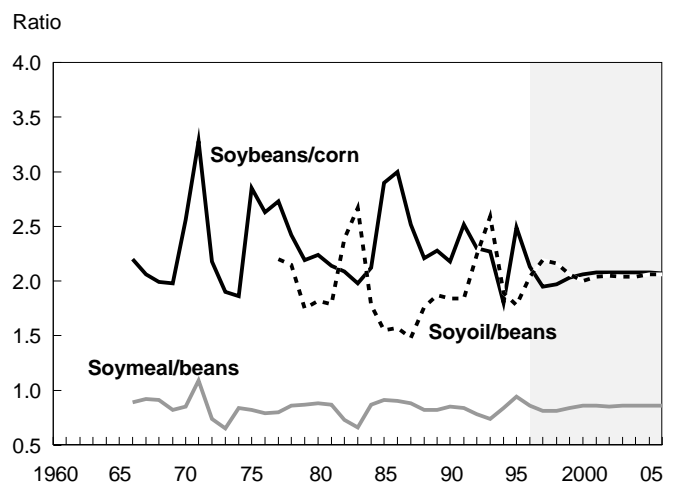


Table 18--Soybean trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	22,810	23,165	23,999	26,127	24,025	27,080	27,352	27,352	27,760	28,168	28,576	28,985	29,393	29,937
Argentina	2,614	2,014	750	2,500	1,970	1,597	1,699	1,800	1,900	2,023	2,150	2,275	2,400	2,525
Brazil	3,492	3,633	8,340	7,400	5,716	7,767	7,676	7,874	7,688	7,748	7,899	7,967	7,998	8,103
Canada	542	603	477	620	561	403	397	371	367	344	341	319	308	300
China	394	222	195	180	248	192	181	171	160	149	140	131	125	120
European Union 15 1/	384	270	339	286	320	292	295	298	301	304	307	310	313	316
Other S. & C. America	1,795	1,978	2,065	2,475	2,078	2,343	2,411	2,473	2,525	2,584	2,644	2,708	2,772	2,841
Other	158	170	183	188	175	163	161	159	160	157	157	154	153	155
Total	32,189	32,055	36,348	39,776	35,092	39,837	40,172	40,498	40,861	41,477	42,214	42,849	43,462	44,297
<b>Importers</b>														
United States	136	121	242	163	166	191	218	245	191	191	245	163	191	218
Brazil	900	1,300	1,700	1,000	1,225	972	957	982	988	1,024	1,045	1,072	1,083	1,088
Canada	67	66	233	70	109	71	72	73	73	74	75	76	76	77
C. America & Caribbean	363	296	304	306	317	363	372	384	399	419	440	465	493	522
China	155	795	2,274	3,000	1,556	3,644	3,906	4,097	4,302	4,501	4,701	4,925	5,153	5,376
Central/East Europe	238	197	200	308	236	302	308	315	321	327	334	340	346	353
Czech Republic	5	24	6	6	10	6	6	6	6	6	6	6	6	6
Slovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	10	10	7	5	8	0	0	0	0	0	0	0	0	0
Poland	50	10	60	120	60	120	120	120	120	120	120	120	120	120
Other Central/East Europe	173	153	127	177	158	176	182	189	195	201	208	214	220	227
European Union 15 1/	16,049	14,240	15,550	15,800	15,410	16,564	15,829	15,583	15,425	15,457	15,501	15,448	15,400	15,291
Egypt	95	88	115	200	125	116	121	127	130	136	142	147	151	158
Former Soviet Union 2/	147	122	200	225	174	84	83	85	83	84	82	80	80	79
Russia	35	35	110	135	79	0	0	0	0	0	0	0	0	0
Ukraine	20	20	20	20	20	21	21	22	22	23	22	21	22	22
Other Former Soviet Union	92	67	70	70	75	63	62	63	61	61	60	59	58	57
Indonesia	619	718	672	800	702	994	1,101	1,149	1,198	1,230	1,263	1,296	1,323	1,358
Japan	4,837	4,776	5,043	4,900	4,889	4,933	4,957	5,009	5,043	5,074	5,069	5,077	5,077	5,079
Malaysia	630	660	500	450	560	711	731	754	777	803	830	859	888	917
Mexico	1,867	2,401	2,680	3,000	2,487	3,577	3,760	3,914	4,054	4,190	4,325	4,472	4,620	4,776
Other N. Africa & M. East	753	719	934	1,027	858	917	952	991	1,027	1,069	1,112	1,155	1,197	1,243
Other S. America	474	456	580	555	516	586	605	624	641	659	675	693	712	731
Pakistan	25	11	42	40	30	42	44	45	46	48	49	51	52	54
Philippines	87	160	160	160	142	293	303	308	309	316	320	327	331	334
South Korea	1,384	1,422	1,622	1,400	1,457	1,474	1,527	1,542	1,544	1,554	1,575	1,610	1,643	1,675
Taiwan	2,598	2,646	2,632	2,500	2,594	2,554	2,610	2,661	2,709	2,764	2,819	2,871	2,927	2,976
Thailand	115	426	550	600	423	482	508	502	511	515	519	527	534	539
Turkey	170	180	225	250	206	256	259	262	265	267	269	270	272	273
Other	797	714	1,325	837	918	711	949	846	825	775	824	925	913	1,180
Total	32,506	32,514	37,783	37,591	35,099	39,837	40,172	40,498	40,861	41,477	42,214	42,849	43,462	44,297
Exports-Imports	-317	-459	-1,435	2,185	-7	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Table 19--Soymeal trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	6,094	5,445	6,345	6,759	6,161	7,031	6,895	6,804	6,713	6,713	6,759	6,804	6,895	6,985
Argentina	7,150	7,781	8,150	9,480	8,140	9,829	10,081	10,321	10,630	10,874	11,192	11,501	11,801	12,056
Brazil	11,471	10,900	10,000	11,100	10,868	11,253	11,590	12,008	12,339	12,732	13,070	13,437	13,820	14,257
Canada	16	40	86	55	49	31	31	31	31	32	32	32	33	33
China	1,275	100	25	25	356	26	24	21	18	16	14	12	11	10
European Union 15 1/	3,669	4,071	4,153	4,053	3,987	4,099	4,082	4,091	4,091	4,088	4,090	4,089	4,089	4,089
India	1,580	2,600	2,500	3,000	2,420	3,414	3,601	3,772	3,986	4,131	4,353	4,545	4,718	4,882
Other S. America	794	1,009	1,159	1,273	1,059	1,298	1,319	1,343	1,369	1,392	1,414	1,440	1,465	1,491
Other	315	344	305	304	317	285	288	291	295	300	303	308	312	316
Total	32,364	32,290	32,723	36,049	33,357	37,266	37,911	38,682	39,472	40,278	41,227	42,168	43,144	44,119
<b>Importers</b>														
United States	58	68	92	113	83	91	91	91	91	91	91	91	91	91
Canada	820	731	650	595	699	615	611	608	607	603	603	595	587	581
C. America & Caribbean	896	1,032	1,099	1,250	1,069	1,266	1,271	1,302	1,322	1,349	1,378	1,403	1,426	1,446
Central/East Europe	2,182	2,071	1,941	2,073	2,067	2,181	2,158	2,214	2,241	2,306	2,378	2,455	2,543	2,596
Czech Republic	410	375	383	383	388	391	390	405	417	427	448	460	475	478
Slovakia	182	182	182	185	183	190	189	193	195	199	204	207	210	211
Hungary	450	470	460	520	475	543	512	535	535	566	589	629	670	697
Poland	700	780	700	750	733	725	728	740	748	762	782	798	808	817
Other Central/East Europe	440	264	216	235	289	332	339	341	346	352	355	361	380	393
Egypt	575	419	580	525	525	623	657	678	696	718	736	758	779	803
European Union 15 1/	16,801	15,791	14,823	15,345	15,690	15,541	15,656	15,591	15,460	15,409	15,389	15,449	15,773	16,049
Former Soviet Union 2/	675	534	397	405	503	444	459	483	505	537	573	609	647	685
Russia	205	35	90	90	105	129	137	156	174	201	233	265	299	334
Ukraine	225	250	100	105	170	100	101	102	103	104	105	106	107	108
Other Former Soviet Union	245	249	207	210	228	215	221	225	228	232	235	238	241	243
Indonesia	578	894	1,104	810	847	1,284	1,333	1,387	1,441	1,499	1,559	1,621	1,685	1,751
Iran	500	560	540	570	543	597	602	606	610	616	622	629	633	638
Japan	857	750	825	900	833	646	620	572	530	491	473	448	422	390
Malaysia	450	500	678	525	538	616	637	660	686	714	745	777	812	849
Mexico	360	350	200	200	278	238	250	269	287	310	331	353	376	400
Other N. Africa & M. East	1,273	1,480	1,404	1,472	1,407	1,555	1,579	1,624	1,663	1,716	1,766	1,818	1,868	1,916
Other S. America	1,137	1,488	1,493	1,635	1,438	1,629	1,584	1,577	1,573	1,587	1,616	1,616	1,620	1,629
Philippines	899	900	965	960	931	982	1,042	1,100	1,173	1,249	1,328	1,409	1,486	1,569
Saudi Arabia	445	450	450	450	449	464	476	494	515	540	568	596	626	653
South Korea	960	1,059	813	800	908	1,125	1,162	1,173	1,181	1,193	1,207	1,211	1,213	1,214
Thailand	817	830	950	940	884	1,049	1,073	1,063	1,074	1,080	1,089	1,096	1,098	1,105
Turkey	220	300	350	425	324	475	491	522	571	591	605	599	592	603
Other	1,521	3,092	5,622	6,534	4,192	6,468	6,816	7,346	7,942	8,397	8,906	9,393	9,646	9,954
Total	31,449	32,880	34,396	36,002	33,682	37,266	37,911	38,682	39,472	40,278	41,227	42,168	43,144	44,119
Exports-Imports	915	-590	-1,673	47	-325	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.

Table 20--Soyoil trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	1,216	450	927	1,134	932	1,247	1,315	1,383	1,361	1,349	1,338	1,361	1,383	1,406
Argentina	1,477	1,634	1,725	2,000	1,709	2,050	2,104	2,227	2,267	2,309	2,347	2,418	2,479	2,535
Brazil	1,643	1,350	1,130	1,405	1,382	1,408	1,380	1,412	1,448	1,536	1,549	1,575	1,590	1,598
China	89	66	150	20	81	17	16	16	16	16	16	15	15	15
European Union-15 1/	1,293	1,112	1,218	1,208	1,208	1,378	1,321	1,226	1,223	1,144	1,140	1,136	1,147	1,135
Malaysia	98	93	94	106	98	129	130	133	134	137	140	142	145	148
Other Asia	84	85	84	85	85	85	85	85	85	85	85	86	86	86
Other C. & S. America	186	204	223	250	216	241	246	251	261	269	280	292	303	314
Other	63	116	102	105	97	97	107	98	109	119	130	140	140	161
Total	6,149	5,110	5,653	6,313	5,806	6,652	6,704	6,831	6,904	6,964	7,025	7,165	7,288	7,398
<b>Importers</b>														
United States	8	43	24	27	26	29	29	29	29	29	29	32	34	36
Bangladesh	425	275	275	275	313	260	266	273	278	285	291	297	303	310
Brazil	162	175	200	200	184	181	179	180	181	179	180	181	183	183
C. America & Caribbean	222	205	229	276	233	231	236	241	244	246	248	250	251	251
China	1,702	1,445	1,674	1,800	1,655	2,000	2,080	2,111	2,106	2,075	2,053	2,099	2,132	2,136
Egypt	127	98	90	100	104	103	106	108	110	112	114	116	118	120
European Union-15 1/	633	542	518	552	561	580	583	586	589	592	595	598	601	604
India	60	60	85	100	76	126	134	145	157	170	184	207	225	245
Iran	500	340	380	410	408	451	462	474	486	498	510	522	534	546
Japan	16	1	2	2	5	2	2	2	3	3	3	3	3	3
Other Asia	261	285	360	385	354	366	375	389	398	413	422	436	448	460
Other N. Africa & M. East	565	436	550	607	540	564	577	591	605	619	631	642	653	674
Other S. America	575	529	579	619	576	622	624	632	637	647	657	667	677	688
Pakistan	167	124	150	150	148	160	164	168	172	176	179	182	186	189
Turkey	143	100	125	125	123	138	142	146	150	154	158	163	167	171
Other	578	581	718	757	659	839	745	756	759	766	771	770	773	782
Total	6,144	5,239	5,959	6,385	5,932	6,652	6,704	6,831	6,904	6,964	7,025	7,165	7,288	7,398
Exports-Imports	5	-129	-306	-72	-126	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade.

gains in developing countries. During 1997-2007, growth in soybean oil trade will be curbed by reduced U.S. export subsidies, negligible oilseed expansion in the EU, and higher relative prices that shift demand toward competing oils.

Both world and U.S. exports of soybean oil are projected to grow faster than exports of soybeans during 1997-2007. With the outlook for continued growth in trade in oil relative to meal, incentives to produce high-oil content oilseeds and palm oil are expected to strengthen.

### **Soybeans and Meal**

U.S. exports of soybeans and soybean meal are projected at 29.9 and 7.0 million tons, respectively, in 2007. The U.S. soybean market share is projected to remain about 68 percent through 2007, while the U.S. share of the soybean meal market contracts from 19 percent to 16 percent. These projected U.S. shares contrast with significantly higher shares for soybeans (73 percent) and soybean meal (24 percent) achieved in the 1980s. Limited potential for expanding U.S. acreage and rising livestock numbers, especially poultry, constrict U.S. exportable supplies of soybeans and soybean meal. A thriving meat export trade also keeps more feed supplies within U.S. borders.

Foreign soybean production is projected to climb 3.0 percent annually from the 1994-96 average level and reach 96.2 million tons in 2007. Foreign supply growth will be sharply slower than during the 1970s (9 percent annually) and 1980s (6 percent), when Brazil and Argentina added large amounts of land to soybean production. Foreign soybean yields are forecast to rise at a modest 1.2 percent annually, slightly below the 1980s, because no major technological breakthroughs that would support rapid yield increases are anticipated.

Gains in world soybean meal consumption also are projected to be smaller than in the 1980s, primarily because of weaker demand growth in the FSU, Japan, and the EU. However, strong economic growth in developing economies is projected to partially compensate for those declines and support global consumption growth of about 2 percent annually.

### **Soybean Oil**

World use of soybean oil is projected to expand at a rate of 2.1 percent annually during 1997-2007, about the same as in the 1980s, but well below the strong 5.1

percent rate of growth achieved during 1990-96. Projected consumption gains are concentrated in Asia and South America, with little growth anticipated in the Middle East, North Africa, Central America, and the Caribbean. Foreign soybean oil production is projected to rise 2.5 percent annually and reach 18.4 million tons by 2007. Growth in soybean processing in Mexico, Brazil, Argentina, India, and China accounts for most of the projected gains in foreign soybean oil production.

The U.S. share of the global soybean oil market is projected to rise to 20 percent through 2002, but then slip somewhat in the next 3 years as supplies tighten. Projected U.S. soybean oil exports rise to 1.4 million tons by 2007. Reduced export subsidies, global output gains in other vegetable oils (especially palm oil), and limited growth in domestic soybean oil production will restrain the growth in U.S. market share.

### **Highlights for Major Soybean and Meal Importers**

Developing countries account for 80 percent of soybean and soybean meal import growth over the 1997-2007 projection horizon. China, Indonesia, the Philippines, and Mexico account for much of the growth, with China alone accounting for 57 percent of all expected growth over the period. Rising per capita incomes and increased meat demand from the livestock sector drive import demand in these regions. EU imports are forecast to grow slightly over the period, but their share of world soybean and soybean meal trade, on a soybean equivalent basis, is forecast to drop from 42 to 36 percent.

**European Union.** EU imports of soybean and soybean meal, on a soybean equivalent basis, are projected to rise through 1999 before beginning a decline through 2003. Beyond 2003, growth in soybean meal imports offsets lower soybean imports so that total imports (on a soybean equivalent basis) are projected to rise through 2007. Soybean imports by 2007 are forecast at 15.3 million tons, with soybean meal imports totaling 16.0 million tons.

The U.S.-EU Oilseed Agreement is expected to limit the expansion of oilseed area. In the first few years, improved crush margins resulting from higher vegetable oil prices are expected to boost the demand for imported soybeans. Additionally, in the wake of the BSE situation, substitution of pork and poultry for beef is expected to raise production of these meats and

boost demand for soybean meal. Further enhancing demand for soybean meal are rising unsubsidized exports of pork and poultry over the projection period.

**Mexico.** Mexico's soybean imports are expected to rebound sharply in 1998 and grow steadily over the decade as expanding meat demand spurs domestic meat production and demand for imported feeds. Aiding demand is Mexico's economic and population growth, projected to be the fastest in North America during the next 10 years. Mexican soybean production has declined in recent years and should account for a minor share of domestic supplies. Future production gains remain limited by scarce water, land, and low levels of technology. Under NAFTA, Mexican soybean tariffs are scheduled to decline from 6 percent in 1997 to zero by 2003. Mexico's annual soybean imports are expected to grow briskly through 2000 before leveling off at a 3.4-percent annual growth rate, and reaching 4.8 million metric tons in 2007.

**Former Soviet Union.** FSU imports of soybean meal, after falling precipitously in the early 1990s, are expected to resume modest growth from 1997 through 2007. As market reforms yield small economic gains, imports of soybean meal will begin to rise by 4 to 5 percent per year through 2002 before accelerating to 6 to 7 percent growth through 2007. Modest livestock recovery and capital constraints on investment in new crushing facilities are expected to boost soybean meal imports. Similarly, higher soybean meal imports and constrained investment in crushing are likely to prompt declines in imports of soybeans over the 1997-2007 period. By 2007, soybean meal and soybean imports are forecast at 0.7 million and 0.1 million tons, respectively.

**Central and Eastern Europe.** Soybean meal imports into Central and Eastern Europe are expected to rise in 1998 and remain stable until commencing growth in 2001 and beyond. By 2007, soybean meal imports are expected to reach 2.6 million tons. Economic reforms and associated growth will likely lead to some rebuilding of livestock herds, but rising meat prices are expected to temper consumer demand and hold soybean meal imports well below levels of the 1970s and 1980s. Soybean imports are expected to grow slowly over the forecast horizon, reaching about 0.4 million tons in 2007.

**China.** Since 1996, Chinese soybean imports have surged and are expected to grow dramatically over the

1997-2007 period. Rapidly increasing meat demand and demand for protein meal and vegetable oils are expected to fuel investments in crushing facilities, thus raising soybean import demand. Although slowing economic growth may slow China's expanding poultry production somewhat, a brisk pace is still projected to satisfy domestic consumption and strong exports, principally to Japan. China's imports of soybeans are seen rising nearly 80 percent from 1997 to 2007, to 5.4 million metric tons. Soybean meal imports would increase nearly 60 percent from 1997 to 2007 to 2.9 million tons.

**Japan.** Japan is expected to show little growth in food consumption, but to increase its food imports as domestic production falters. Meat consumption is expected to grow about 10 percent over the next decade, compared with the 18-percent growth rate observed during 1985-1995. Falling meat import barriers, high local production costs, and environmental concerns favor importation of meat over domestic production, thus reducing feed demand. Imports of soybean meal fall by half over the baseline. Stable consumption of soy foods will offset stagnant crushing demand, so that Japanese soybean imports are expected to rise slowly.

**South Korea.** Soybean imports by South Korea are projected to fall to near 1.5 million tons in 1998 and 1999 and remain near that level through 2002. Subsequently, soybean imports are expected to grow about 2 percent per year, reaching 1.7 million tons in 2007. Soybean meal imports into South Korea are expected to grow throughout the 1997-2007 period, but at a more modest pace the first few years than was envisioned before the Asian financial crisis. Recent economic uncertainties and disruptions are expected to slow the rate of growth in soybean meal imports. Beyond 2002, soybean meal imports are projected to rise 4 to 5 percent per year, reaching 1.4 million metric tons in 2007.

### Highlights for Major Soyoil Importers

Income growth in China, India, and Pakistan, which together account for more than a third of total world population, is a significant determinant of the growth in global vegetable oil trade during 1997-2007. Despite high internal prices and import controls in these countries, consumption of vegetable oils is expected to expand considerably. Per capita consump-

tion of oils in these countries is still well below that of developed nations.

However, over the long run, soybean oil is expected to have a smaller role in global vegetable oil trade because of higher market prices compared with other oils, particularly palm oil. After recovery from the current drought-related shortfalls, palm oil exports by Malaysia and Indonesia are expected to resume their gains, increasing palm oil's already leading share of oil consumption and trade. By 2007, palm oil is anticipated to account for most of the increase in imports by China, India, and Pakistan because of favorable relative prices and transport costs.

Since the projected growth in vegetable oil demand during 1997-2007 is highly dependent on expected economic growth in developing countries, the projections are sensitive to the macroeconomic outlook for these countries. The import projections are also sensitive to assumptions on changes in market access for vegetable oils. India is assumed to maintain its tariffication of vegetable oil imports, while no changes in current access policies are anticipated in China and Pakistan.

**China.** A rapidly expanding economy in China is expected to drive demand for soybean oil imports sharply higher. The rise in soybean oil imports is expected despite much higher crushing of rapidly growing soybean imports. China's domestic production of soybeans is forecast to show limited gains. China's soybean oil imports are forecast to grow to 2.1 million tons by 2007.

Owing to the size of the market, China's future level of vegetable oil consumption and rate of growth constitutes a major uncertainty in world trade forecasts. As a major oilseed producer, small changes in China's domestic plantings or yields can also have a significant effect on vegetable oil imports. Additionally, since vegetable oil imports remain under state control, future levels of imports may not necessarily reflect market conditions.

**India.** Gains in India's per capita income and liberalized oil trade will boost oil demand and imports of soybean oil over the next 10 years. However, soybean oil will continue to encounter stiff price competition from palm oil over the long term and consumer resistance to pure soybean oil for cooking use. Nonetheless, increasing deficits of vegetable oils are expected to

boost soybean oil imports to nearly a quarter-million tons by 2007. Palm oil, however, is expected to account for the bulk of Indian imports because of its better consumer acceptance and low delivered price relative to other oils.

**North Africa and the Middle East.** Import demand for soybean oil in North Africa and the Middle East is projected to increase by 2.0-2.5 percent annually during 1997-2007. Price competitiveness will continue to play a major role in determining relative levels of vegetable oil imports. Less costly palm oil imports are expected to continue to limit the growth potential for soybean oil imports in these countries.

**Latin America.** In Latin America, total soybean oil imports are expected to rise very slowly over the 1997-2007 period, averaging about a half-percent growth per year. Declining imports in Mexico will dampen growth in the other countries, as Mexico slowly ceases imports as its crush of imported soybeans expands to meet demand. Larger soybean oil imports by non-producing countries of South America will contribute most to the overall slow growth in the region. Soybean oil imports there will likely continue to benefit from proximity to major producers and a preference for soybean oil.

**Other countries.** Prospects for a tighter balance between vegetable oil demand and supply, particularly during the early years of the 1997-2007 forecast horizon, support the projection that most soybean oil trade will be in the form of commercial sales. Consequently, demand in markets such as *Sub-Saharan Africa, Central and Eastern Europe*, and the *FSU* may show little growth. In the *FSU* and Eastern Europe, prospects for a tighter vegetable oil market also may spur increased area of high-oil content crops, such as sunflowerseed and rapeseed, and thereby limit soybean oil imports.

### Highlights for Major Foreign Soybean and Meal Exporters

**South America.** Annual exports of soybeans from South America are expected to demonstrate erratic growth over the next few years as domestic demand competes for available supply. *Brazil's* elimination of differential export taxes will reduce incentives to export soybean meal in lieu of soybeans. Projected annual growth in exports varies from 2.5 percent lower



to 2.5 percent higher. Strong internal feed consumption will also slow Brazilian soybean and meal exports.

Competition for land from corn, sunflowerseed, and an improving livestock sector will likely constrain growth in *Argentina* soybean area. Annual growth in *Argentina*'s soybean exports in the 1999-2007 period is projected to range between 5.5 and 6.5 percent. *Argentina*'s small consumption base and rapidly expanding crush capacity assure long-term growth in exports of soybean meal.

Soybean production and exports in both *Paraguay* and *Bolivia* will expand steadily through 2007 due to increases in irrigated area and improved infrastructure. With soybean export growth in other South American countries increasing at an average of about 2.5 percent per year, total South American exports will increase about 2.2 percent a year. South America's combined market share for soybeans is projected to rise from 29 percent in 1997 to 30 percent by 2007, while the soybean meal share rises from 60 to 63 percent.

The potential response of farmers and traders in Brazil and *Argentina* to economic reforms and the privatization of ports, highways, railroads, and grain-handling facilities will be important to the trade outlook for soybeans and meal. In either country, improved infrastructure can significantly lower producer costs and enhance competitiveness. Prospects for expanding Brazilian production rely heavily on new production in the outskirts of the Center-West region. Transport costs have hindered area expansion. Although some expansion of soybean area in the Center-West region is anticipated in the baseline, area and production could grow more dramatically if transport costs are reduced or soybean prices rise sufficiently.

**India.** India is expected to continue to expand its soybean and soybean meal production. With limited

domestic demand, soybean meal exports are forecast to grow briskly over the projection horizon, reaching 4.9 million tons in 2007.

**China.** Both soybean and soybean meal exports from China are expected to decline to negligible levels over the 1997-2007 period. China will absorb most of its domestic soybean production as feed for its growing livestock sector.

### Highlights for Major Foreign Soyoil Exporters

Exports of soybean oil are concentrated among the United States, EU, *Argentina*, and Brazil, which together accounted for 90 percent of world soybean oil trade during 1994-1996.

**South America.** *Argentina*'s exports of soybean oil over the 1997-2007 period are expected to continue to grow, and *Argentina* will remain the world's largest soybean oil exporter. While *Argentina*'s soybean oil export growth will remain robust in the first few years, owing to tightness in the world vegetable oil market, the tremendous gains of recent years will likely be limited by slower growth in planted area. In the next several years, *Argentina* should also increase plantings of high-oil content sunflowerseed on available oilseed area. In *Brazil*, soybean oil exports are expected to remain stable in the first few years at about 1.4 million metric tons, before beginning to rise steadily in 2002 and reaching 1.6 million tons in 2007.

**European Union.** CAP reform and the U.S.-EU Oilseed Agreement are expected to restrain EU oilseed production and soybean oil exports. EU soybean oil exports are forecast to decline to 1.1 million tons by 2007.

Table 21--Soybean Supply and Use Projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>World</b>								
1994	62,198	2.21	137,650	32,506	32,189	134,154	111,934	12,908
1995	61,681	2.03	124,943	32,514	32,055	129,748	110,017	8,567
1996	63,261	2.08	131,786	37,783	36,348	134,942	114,091	6,846
1997	69,356	2.20	152,301	37,591	39,776	145,784	123,815	11,178
1994-97 ave.	64,124	2.13	136,670	35,099	35,092	136,157	114,964	9,875
1999	66,913	2.24	149,566	39,837	39,837	150,360	128,524	10,844
2000	67,375	2.26	152,522	40,172	40,172	153,028	130,852	10,338
2001	68,000	2.30	156,097	40,498	40,498	156,454	133,912	9,981
2002	68,707	2.32	159,451	40,861	40,861	159,657	136,883	9,775
2003	69,591	2.35	163,280	41,477	41,477	163,375	140,399	9,680
2004	70,395	2.37	166,969	42,214	42,214	166,922	143,697	9,726
2005	71,106	2.40	170,662	42,849	42,849	170,568	147,118	9,821
2006	71,870	2.43	174,376	43,462	43,462	174,298	150,946	9,899
2007	72,580	2.45	178,102	44,297	44,297	178,046	154,314	9,955
<b>United States</b>								
1994	24,629	2.78	68,493	136	22,810	42,398	38,242	9,112
1995	24,938	2.38	59,243	121	23,165	40,318	37,273	4,993
1996	25,661	2.53	64,837	242	23,999	42,497	39,080	3,576
1997	28,281	2.62	74,224	163	26,127	45,163	41,368	6,673
1994-97 ave.	25,877	2.58	66,699	166	24,025	42,594	38,991	6,089
1999	27,085	2.69	72,801	191	27,080	46,857	43,137	6,948
2000	27,085	2.72	73,756	218	27,352	47,169	43,681	6,401
2001	27,085	2.76	74,704	245	27,352	48,024	44,225	5,974
2002	27,207	2.79	75,797	191	27,760	48,484	44,634	5,718
2003	27,287	2.82	77,019	191	28,168	49,178	45,314	5,582
2004	27,409	2.85	78,244	245	28,576	49,924	45,994	5,571
2005	27,490	2.89	79,471	163	28,985	50,641	46,675	5,579
2006	27,611	2.92	80,694	191	29,393	51,492	47,491	5,579
2007	27,692	2.96	81,920	218	29,937	52,209	48,172	5,571
<b>Argentina</b>								
1994	5,700	2.19	12,500	0	2,614	9,843	9,280	365
1995	5,980	2.08	12,430	10	2,014	10,515	9,927	276
1996	6,200	1.81	11,200	650	750	11,110	10,550	266
1997	6,800	2.35	16,000	250	2,500	13,140	12,330	876
1994-97 ave.	6,170	2.11	13,033	228	1,970	11,152	10,522	446
1999	6,678	2.25	15,016	0	1,597	13,419	12,834	393
2000	6,852	2.27	15,524	0	1,699	13,815	13,190	403
2001	6,946	2.30	15,991	0	1,800	14,181	13,522	413
2002	7,086	2.33	16,533	0	1,900	14,621	13,935	425
2003	7,208	2.36	17,029	0	2,023	14,996	14,273	435
2004	7,374	2.39	17,637	0	2,150	15,474	14,709	448
2005	7,512	2.42	18,207	0	2,275	15,919	15,124	461
2006	7,643	2.45	18,744	0	2,400	16,332	15,518	473
2007	7,751	2.48	19,217	0	2,525	16,681	15,851	484
<b>Brazil</b>								
1994	11,680	2.22	25,900	900	3,492	23,249	21,599	710
1995	10,950	2.21	24,150	1,300	3,633	21,702	20,154	825
1996	11,800	2.29	27,000	1,700	8,340	20,660	18,910	525
1997	12,900	2.33	30,000	1,000	7,400	23,150	21,200	975
1994-97 ave.	11,833	2.26	26,763	1,225	5,716	22,190	20,466	759
1999	12,881	2.37	30,531	972	7,767	23,704	21,695	902
2000	13,084	2.40	31,460	957	7,676	24,716	22,571	927
2001	13,348	2.45	32,696	982	7,874	25,768	23,495	963
2002	13,348	2.49	33,260	988	7,688	26,543	24,192	980
2003	13,496	2.53	34,166	1,024	7,748	27,416	24,974	1,006
2004	13,647	2.57	35,112	1,045	7,899	28,230	25,693	1,034
2005	13,761	2.61	35,977	1,072	7,967	29,055	26,432	1,061
2006	13,889	2.65	36,834	1,083	7,998	29,891	27,182	1,089
2007	14,062	2.69	37,806	1,088	8,103	30,760	27,970	1,120

Continued---

Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>Canada</b>								
1994	820	2.75	2,251	67	542	1,743	1,122	183
1995	824	2.78	2,293	66	603	1,885	1,269	54
1996	860	2.52	2,165	233	477	1,926	1,474	49
1997	1,050	2.57	2,700	70	620	2,095	1,600	104
1994-97 ave.	889	2.65	2,352	109	561	1,912	1,366	98
1999	958	2.62	2,510	71	403	2,177	1,629	115
2000	963	2.64	2,541	72	397	2,214	1,663	117
2001	960	2.66	2,550	73	371	2,250	1,698	118
2002	963	2.67	2,575	73	367	2,279	1,724	120
2003	956	2.69	2,576	74	344	2,305	1,745	121
2004	958	2.71	2,600	75	341	2,333	1,770	123
2005	954	2.73	2,608	76	319	2,363	1,798	124
2006	953	2.75	2,624	76	308	2,391	1,823	126
2007	952	2.78	2,642	77	300	2,418	1,848	127
<b>Central America &amp; Caribbean</b>								
1994	15	2.80	42	363	3	402	396	4
1995	16	2.88	46	296	3	343	323	5
1996	17	2.65	45	304	3	346	327	5
1997	19	2.63	50	306	3	353	333	5
1994-97 ave.	17	2.73	46	317	3	361	345	5
1999	17	2.93	48	363	3	408	398	5
2000	17	2.98	50	372	3	419	409	5
2001	17	3.03	53	384	3	433	423	5
2002	18	3.07	55	399	3	451	441	5
2003	18	3.12	57	419	3	473	463	6
2004	19	3.16	59	440	3	496	486	6
2005	19	3.21	62	465	3	523	513	6
2006	20	3.25	64	493	3	553	544	7
2007	20	3.29	66	522	3	585	575	7
<b>Central &amp; Eastern Europe</b>								
1994	163	1.57	256	238	7	504	410	9
1995	166	1.73	288	197	5	482	412	7
1996	203	1.69	344	200	5	526	452	20
1997	164	2.18	357	308	5	672	599	8
1994-97 ave.	174	1.79	311	236	6	546	468	11
1999	192	1.69	324	302	5	621	562	19
2000	189	1.70	322	308	5	625	565	19
2001	188	1.71	322	315	5	632	571	19
2002	187	1.72	322	321	5	638	576	19
2003	187	1.73	324	327	6	645	582	19
2004	187	1.74	325	334	6	653	590	19
2005	186	1.75	325	340	6	659	595	19
2006	185	1.75	325	346	6	665	599	19
2007	185	1.76	325	353	7	671	605	19
<b>China</b>								
1994	9,222	1.73	16,000	155	394	15,761	8,090	0
1995	8,127	1.66	13,500	795	222	14,073	7,200	0
1996	7,470	1.77	13,220	2,274	195	15,299	8,000	0
1997	8,200	1.68	13,800	3,000	180	16,620	9,245	0
1994-97 ave.	8,255	1.71	14,130	1,556	248	15,438	8,134	0
1999	7,921	1.71	13,513	3,644	192	16,964	10,121	0
2000	7,842	1.74	13,665	3,906	181	17,390	10,676	0
2001	7,878	1.79	14,108	4,097	171	18,034	11,412	0
2002	7,987	1.84	14,668	4,302	160	18,810	12,175	0
2003	8,105	1.88	15,213	4,501	149	19,565	12,911	0
2004	8,066	1.92	15,449	4,701	140	20,010	13,489	0
2005	8,105	1.96	15,881	4,925	131	20,675	14,231	0
2006	8,175	2.01	16,395	5,153	125	21,423	15,027	0
2007	8,254	2.05	16,898	5,376	120	22,154	15,819	0

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Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>Czech Republic</b>								
1994	1	1.00	1	5	0	6	0	0
1995	1	1.00	1	24	0	25	18	0
1996	1	1.00	1	6	0	7	5	0
1997	1	1.00	1	6	0	7	5	0
1994-97 ave.	1	1.00	1	10	0	11	7	0
1999	1	0.99	1	6	0	7	5	0
2000	1	1.01	1	6	0	7	5	0
2001	1	1.02	1	6	0	7	5	0
2002	1	1.03	1	6	0	7	5	0
2003	1	1.04	1	6	0	7	5	0
2004	1	1.05	1	6	0	7	5	0
2005	1	1.06	1	6	0	7	5	0
2006	1	1.07	1	6	0	7	5	0
2007	1	1.07	1	6	0	7	5	0
<b>EU-15</b>								
1994	352	2.92	1,029	16,049	384	16,351	14,426	964
1995	291	3.23	939	14,240	270	15,011	13,647	862
1996	335	3.44	1,153	15,550	339	16,434	15,038	792
1997	428	3.37	1,442	15,800	286	16,877	15,400	871
1994-97 ave.	352	3.25	1,141	15,410	320	16,168	14,628	872
1999	388	3.38	1,313	16,564	292	17,583	16,194	869
2000	387	3.44	1,332	15,829	295	16,874	15,510	861
2001	388	3.49	1,355	15,583	298	16,642	15,303	859
2002	391	3.54	1,382	15,425	301	16,509	15,220	856
2003	393	3.58	1,407	15,457	304	16,567	15,329	849
2004	394	3.63	1,432	15,501	307	16,628	15,441	847
2005	395	3.67	1,448	15,448	310	16,589	15,451	843
2006	398	3.71	1,475	15,400	313	16,564	15,730	841
2007	401	3.74	1,499	15,291	316	16,477	15,731	838
<b>Former Soviet Union</b>								
1994	658	0.74	486	147	56	577	481	60
1995	545	0.66	359	122	50	456	386	35
1996	549	0.62	341	200	70	457	358	49
1997	452	0.62	279	225	55	459	354	39
1994-97 ave.	551	0.66	366	174	58	487	395	46
1999	521	0.61	318	84	27	373	271	39
2000	513	0.61	316	83	24	375	272	39
2001	515	0.63	322	85	20	387	281	39
2002	516	0.64	328	83	19	392	284	39
2003	517	0.64	333	84	14	403	293	39
2004	515	0.65	337	82	12	407	295	39
2005	509	0.66	338	80	8	410	297	39
2006	505	0.67	339	80	5	414	300	39
2007	501	0.68	341	79	4	416	300	39
<b>Hungary</b>								
1994	12	1.92	23	10	5	28	10	0
1995	10	2.00	20	10	5	25	10	0
1996	12	2.33	28	7	5	30	5	0
1997	13	2.31	30	5	5	30	5	0
1994-97 ave.	12	2.15	25	8	5	28	8	0
1999	13	2.32	30	0	5	25	5	0
2000	13	2.35	31	0	5	26	5	0
2001	13	2.38	31	0	5	26	5	0
2002	13	2.41	31	0	5	26	5	0
2003	13	2.43	32	0	6	26	5	0
2004	13	2.45	32	0	6	26	5	0
2005	13	2.47	32	0	6	26	5	0
2006	13	2.48	32	0	6	26	5	0
2007	13	2.50	33	0	7	26	5	0

Continued---

Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>India</b>								
1994	4,025	0.80	3,236	55	0	3,175	2,750	116
1995	4,817	0.93	4,476	0	0	4,476	4,046	116
1996	5,000	0.82	4,100	0	0	4,100	3,650	116
1997	5,600	0.96	5,350	0	0	5,240	4,700	226
1994-97 ave.	4,861	0.88	4,291	14	0	4,248	3,787	144
1999	5,614	0.90	5,074	0	0	5,074	4,566	146
2000	5,740	0.91	5,249	0	0	5,249	4,724	146
2001	5,920	0.93	5,479	0	0	5,479	4,931	146
2002	6,195	0.94	5,802	0	0	5,802	5,222	146
2003	6,562	0.95	6,219	0	0	6,219	5,597	146
2004	6,907	0.96	6,625	0	0	6,625	5,963	146
2005	7,201	0.97	6,990	0	0	6,990	6,291	146
2006	7,465	0.98	7,333	0	0	7,333	6,600	146
2007	7,693	0.99	7,648	0	0	7,648	6,883	146
<b>Indonesia</b>								
1994	1,477	1.14	1,680	619	0	2,300	100	103
1995	1,280	1.19	1,517	718	0	2,220	60	118
1996	1,255	1.20	1,510	672	0	2,180	0	120
1997	1,150	1.22	1,400	800	0	2,230	0	90
1994-97 ave.	1,291	1.18	1,527	702	0	2,233	40	108
1999	1,301	1.17	1,519	994	0	2,512	0	103
2000	1,305	1.16	1,518	1,101	0	2,619	0	103
2001	1,300	1.16	1,510	1,149	0	2,659	0	103
2002	1,299	1.17	1,514	1,198	0	2,712	0	104
2003	1,307	1.17	1,529	1,230	0	2,759	0	104
2004	1,318	1.17	1,548	1,263	0	2,811	0	104
2005	1,327	1.18	1,565	1,296	0	2,861	0	104
2006	1,335	1.18	1,579	1,323	0	2,902	0	104
2007	1,340	1.19	1,590	1,358	0	2,948	0	104
<b>Japan</b>								
1994	61	1.62	99	4,837	0	5,035	3,760	622
1995	69	1.72	119	4,776	0	4,965	3,700	552
1996	70	1.71	120	5,043	0	5,080	3,810	635
1997	70	1.71	120	4,900	0	5,075	3,800	580
1994-97 ave.	68	1.70	115	4,889	0	5,039	3,768	597
1999	70	1.71	120	4,933	0	5,053	3,781	399
2000	70	1.71	120	4,957	0	5,075	3,805	400
2001	70	1.71	120	5,009	0	5,125	3,856	404
2002	70	1.71	120	5,043	0	5,160	3,893	407
2003	70	1.71	120	5,074	0	5,192	3,926	410
2004	70	1.71	120	5,069	0	5,189	3,925	409
2005	70	1.71	120	5,077	0	5,196	3,935	410
2006	70	1.71	120	5,077	0	5,197	3,939	410
2007	70	1.71	120	5,079	0	5,199	3,944	410
<b>Malaysia</b>								
1994	0	0.00	0	630	15	609	510	84
1995	0	0.00	0	660	12	645	538	87
1996	0	0.00	0	500	15	492	380	80
1997	0	0.00	0	450	17	457	355	56
1994-97 ave.	0	0.00	0	560	15	551	446	77
1999	0	0.00	0	711	17	692	580	87
2000	0	0.00	0	731	17	712	596	89
2001	0	0.00	0	754	17	734	616	92
2002	0	0.00	0	777	17	757	636	95
2003	0	0.00	0	803	17	783	659	98
2004	0	0.00	0	830	17	810	683	101
2005	0	0.00	0	859	17	838	708	105
2006	0	0.00	0	888	17	867	734	108
2007	0	0.00	0	917	17	896	759	112

Continued---

Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>Mexico</b>								
1994	288	1.82	523	1,867	0	2,400	2,330	90
1995	133	1.43	190	2,401	0	2,506	2,436	175
1996	60	1.00	60	2,680	0	2,760	2,690	155
1997	140	1.43	200	3,000	0	3,125	3,125	230
1994-97 ave.	155	1.57	243	2,487	0	2,698	2,645	163
1999	143	1.52	217	3,577	0	3,785	3,700	265
2000	142	1.56	222	3,760	0	3,969	3,882	278
2001	143	1.57	225	3,914	0	4,129	4,036	289
2002	144	1.59	229	4,054	0	4,273	4,176	299
2003	144	1.61	232	4,190	0	4,412	4,313	308
2004	145	1.62	235	4,325	0	4,550	4,448	318
2005	145	1.64	238	4,472	0	4,699	4,593	328
2006	145	1.66	240	4,620	0	4,850	4,739	339
2007	145	1.68	243	4,776	0	5,008	4,893	350
<b>Pakistan</b>								
1994	6	2.33	14	25	0	39	38	0
1995	6	1.17	7	11	0	18	17	0
1996	2	1.50	3	42	0	45	44	0
1997	2	1.50	3	40	0	43	42	0
1994-97 ave.	4	1.69	7	30	0	36	35	0
1999	6	2.43	15	42	0	58	57	0
2000	6	2.48	16	44	0	60	58	0
2001	6	2.53	16	45	0	61	60	0
2002	7	2.58	17	46	0	63	62	0
2003	7	2.63	18	48	0	66	65	0
2004	7	2.68	18	49	0	67	67	0
2005	7	2.73	19	51	0	70	69	0
2006	7	2.79	20	52	0	72	71	0
2007	7	2.84	21	54	0	75	74	0
<b>Philippines</b>								
1994	7	1.57	11	87	0	135	105	3
1995	6	1.50	9	160	0	168	135	4
1996	6	1.50	9	160	0	167	135	6
1997	6	1.50	9	160	0	169	138	6
1994-97 ave.	6	1.52	10	142	0	160	128	5
1999	7	1.50	10	293	0	302	259	26
2000	7	1.53	10	303	0	312	270	27
2001	7	1.55	11	308	0	318	275	28
2002	7	1.57	11	309	0	319	275	28
2003	7	1.59	11	316	0	326	281	29
2004	7	1.60	11	320	0	331	285	30
2005	7	1.62	12	327	0	338	291	31
2006	7	1.64	12	331	0	342	294	32
2007	7	1.66	12	334	0	345	296	32
<b>Poland</b>								
1994	0	0.00	0	50	0	50	45	0
1995	0	0.00	0	10	0	10	0	0
1996	0	0.00	0	60	0	60	50	0
1997	0	0.00	0	120	0	120	110	0
1994-97 ave.	0	0.00	0	60	0	60	51	0
1999	0	0.00	0	120	0	120	110	0
2000	0	0.00	0	120	0	120	110	0
2001	0	0.00	0	120	0	120	110	0
2002	0	0.00	0	120	0	120	110	0
2003	0	0.00	0	120	0	120	110	0
2004	0	0.00	0	120	0	120	110	0
2005	0	0.00	0	120	0	120	110	0
2006	0	0.00	0	120	0	120	110	0
2007	0	0.00	0	120	0	120	110	0

Continued---

Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>Russia</b>								
1994	577	0.73	421	35	56	400	324	60
1995	485	0.60	290	35	50	300	250	35
1996	487	0.58	282	110	70	308	224	49
1997	390	0.56	220	135	55	310	220	39
1994-97 ave.	485	0.63	303	79	58	330	255	46
1999	466	0.57	264	0	27	236	148	39
2000	459	0.57	261	0	24	237	148	39
2001	459	0.58	265	0	20	245	153	39
2002	458	0.58	268	0	19	249	155	39
2003	458	0.59	270	0	14	256	160	39
2004	455	0.60	272	0	12	260	163	39
2005	450	0.60	272	0	8	264	165	39
2006	446	0.61	273	0	5	268	168	39
2007	442	0.62	273	0	4	269	168	39
<b>South Korea</b>								
1994	122	1.26	154	1,384	0	1,523	1,147	189
1995	105	1.52	160	1,422	0	1,589	1,183	182
1996	98	1.63	160	1,622	0	1,798	1,382	166
1997	95	1.68	160	1,400	0	1,616	1,190	110
1994-97 ave.	105	1.51	159	1,457	0	1,632	1,226	162
1999	117	1.63	191	1,474	0	1,662	1,209	198
2000	117	1.64	192	1,527	0	1,713	1,251	204
2001	117	1.65	193	1,542	0	1,732	1,262	206
2002	117	1.65	194	1,544	0	1,737	1,258	207
2003	117	1.66	195	1,554	0	1,747	1,260	208
2004	117	1.67	196	1,575	0	1,768	1,274	210
2005	117	1.68	197	1,610	0	1,802	1,300	215
2006	117	1.69	198	1,643	0	1,837	1,326	219
2007	117	1.70	199	1,675	0	1,870	1,351	223
<b>Taiwan</b>								
1994	4	2.00	8	2,598	0	2,622	2,339	90
1995	5	2.00	10	2,646	0	2,640	2,356	106
1996	5	2.00	10	2,632	0	2,647	2,362	101
1997	5	2.00	10	2,500	0	2,477	2,192	134
1994-97 ave.	5	2.00	10	2,594	0	2,597	2,312	108
1999	5	2.04	10	2,554	0	2,609	2,302	136
2000	5	2.06	10	2,610	0	2,639	2,323	117
2001	5	2.08	10	2,661	0	2,675	2,358	113
2002	5	2.11	10	2,709	0	2,722	2,399	110
2003	5	1.91	9	2,764	0	2,789	2,461	94
2004	5	1.93	9	2,819	0	2,837	2,466	85
2005	5	1.95	9	2,871	0	2,863	2,523	102
2006	5	1.97	9	2,927	0	2,928	2,580	110
2007	5	1.99	9	2,976	0	2,994	2,644	101
<b>Thailand</b>								
1994	342	1.32	450	115	0	596	441	0
1995	284	1.30	368	426	0	794	600	0
1996	285	1.26	360	550	0	910	715	0
1997	280	1.29	360	600	0	960	765	0
1994-97 ave.	298	1.29	385	423	0	815	630	0
1999	248	1.30	323	482	0	805	616	0
2000	249	1.34	332	508	0	840	651	0
2001	255	1.38	351	502	0	853	662	0
2002	259	1.42	369	511	0	880	683	0
2003	260	1.46	378	515	0	893	693	0
2004	260	1.49	388	519	0	907	702	0
2005	261	1.53	399	527	0	926	716	0
2006	261	1.57	408	534	0	942	726	0
2007	260	1.60	415	539	0	954	731	0

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Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			--- 1,000 tons ---			
<b>Turkey</b>								
1994	50	1.80	90	170	0	245	245	20
1995	45	1.67	75	180	0	255	255	20
1996	40	1.63	65	225	0	285	220	25
1997	48	1.67	80	250	0	335	240	20
1994-97 ave.	46	1.69	78	206	0	280	240	21
1999	56	1.80	101	256	0	357	304	19
2000	57	1.82	104	259	0	363	310	20
2001	59	1.84	108	262	0	370	315	20
2002	60	1.85	112	265	0	377	319	20
2003	62	1.87	116	267	0	382	323	22
2004	63	1.89	120	269	0	386	327	25
2005	65	1.91	124	270	0	391	332	29
2006	67	1.93	129	272	0	396	336	33
2007	68	1.95	133	273	0	401	340	38
<b>Ukraine</b>								
1994	43	0.70	30	20	0	50	40	0
1995	23	1.30	30	20	0	50	40	0
1996	25	0.80	20	20	0	40	35	0
1997	25	0.80	20	20	0	40	35	0
1994-97 ave.	29	0.86	25	20	0	45	38	0
1999	19	0.81	16	21	0	36	32	0
2000	19	0.82	16	21	0	37	33	0
2001	20	0.84	17	22	0	39	34	0
2002	20	0.86	17	22	0	39	34	0
2003	20	0.88	18	23	0	41	37	0
2004	20	0.89	18	22	0	40	35	0
2005	20	0.91	18	21	0	39	35	0
2006	19	0.92	18	22	0	40	35	0
2007	19	0.94	18	22	0	40	35	0
<b>Other Central &amp; Eastern Europe</b>								
1994	150	1.55	232	173	2	420	355	9
1995	155	1.72	267	153	0	422	384	7
1996	190	1.66	315	127	0	429	392	20
1997	150	2.17	326	177	0	515	479	8
1994-97 ave.	161	1.77	285	158	1	447	403	11
1999	178	1.65	293	176	0	469	442	19
2000	175	1.66	291	182	0	473	445	19
2001	174	1.66	290	189	0	479	451	19
2002	173	1.67	290	195	0	485	456	19
2003	173	1.68	291	201	0	492	462	19
2004	173	1.69	292	208	0	500	470	19
2005	172	1.70	292	214	0	506	475	19
2006	171	1.70	292	220	0	511	479	19
2007	171	1.71	292	227	0	518	485	19
<b>Other Former Soviet Union</b>								
1994	38	0.92	35	92	0	127	117	0
1995	37	1.05	39	67	0	106	96	0
1996	37	1.05	39	70	0	109	99	0
1997	37	1.05	39	70	0	109	99	0
1994-97 ave.	37	1.02	38	75	0	113	103	0
1999	36	1.08	39	63	0	101	91	0
2000	35	1.10	39	62	0	101	91	0
2001	36	1.12	41	63	0	104	94	0
2002	38	1.15	43	61	0	104	94	0
2003	39	1.17	45	61	0	106	96	0
2004	39	1.19	47	60	0	107	97	0
2005	40	1.21	48	59	0	107	97	0
2006	40	1.23	49	58	0	107	97	0
2007	40	1.25	50	57	0	107	97	0

Continued---



Table 21--Soybean Supply and Use Projections--continued

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			---	1,000 tons	---	
<b>Other N. Africa &amp; Middle East</b>								
1994	119	1.82	216	753	0	1,007	987	59
1995	123	1.75	215	719	0	930	907	63
1996	109	1.68	183	934	0	1,112	1,092	68
1997	111	1.70	189	1,027	0	1,212	1,192	72
1994-97 ave.	116	1.74	201	858	0	1,065	1,045	66
1999	116	1.82	210	917	0	1,122	1,102	76
2000	116	1.82	211	952	0	1,160	1,137	79
2001	116	1.83	212	991	0	1,200	1,176	82
2002	116	1.83	213	1,027	0	1,237	1,215	85
2003	117	1.83	214	1,069	0	1,280	1,256	88
2004	117	1.84	215	1,112	0	1,323	1,299	92
2005	116	1.84	214	1,155	0	1,365	1,343	95
2006	117	1.85	216	1,197	0	1,409	1,389	99
2007	117	1.85	216	1,243	0	1,456	1,434	102
<b>Other South America</b>								
1994	1,660	2.02	3,355	474	1,792	2,018	1,883	100
1995	1,662	2.09	3,471	456	1,975	1,980	1,893	72
1996	1,826	2.04	3,732	580	2,062	2,240	2,101	82
1997	2,072	2.11	4,372	555	2,472	2,444	2,300	93
1994-97 ave.	1,805	2.07	3,733	516	2,075	2,171	2,044	87
1999	2,043	2.08	4,254	586	2,340	2,500	2,344	96
2000	2,081	2.11	4,399	605	2,408	2,592	2,433	99
2001	2,129	2.14	4,563	624	2,470	2,712	2,550	104
2002	2,176	2.17	4,718	641	2,522	2,832	2,667	109
2003	2,216	2.20	4,866	659	2,581	2,940	2,771	113
2004	2,256	2.22	5,014	675	2,641	3,044	2,871	117
2005	2,296	2.25	5,159	693	2,705	3,143	2,968	120
2006	2,335	2.27	5,296	712	2,769	3,236	3,056	124
2007	2,373	2.29	5,437	731	2,838	3,327	3,144	127

Table 22-- Soymeal Supply and Use Projections

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>World</b>							
1994	112,157	0.79	88,841	31,449	32,364	87,222	3,724
1995	110,015	0.79	87,341	32,880	32,290	88,020	3,656
1996	114,284	0.80	90,873	34,396	32,723	92,997	3,205
1997	123,256	0.80	98,213	36,002	36,049	98,031	3,340
1994-97 ave.	114,928	0.79	91,317	33,682	33,357	91,568	3,481
1999	128,524	0.80	102,286	37,266	37,266	102,257	3,232
2000	130,852	0.80	104,565	37,911	37,911	104,560	3,236
2001	133,912	0.80	107,166	38,682	38,682	107,121	3,281
2002	136,883	0.80	109,710	39,472	39,472	109,646	3,345
2003	140,399	0.80	112,341	40,278	40,278	112,269	3,418
2004	143,697	0.80	114,917	41,227	41,227	114,810	3,525
2005	147,118	0.80	117,636	42,168	42,168	117,523	3,638
2006	150,946	0.80	120,419	43,144	43,144	120,313	3,744
2007	154,314	0.80	123,163	44,119	44,119	123,064	3,842
<b>United States</b>							
1994	38,242	0.79	30,182	58	6,094	24,079	203
1995	37,273	0.79	29,508	68	5,445	24,141	193
1996	39,080	0.79	31,034	92	6,345	24,787	187
1997	40,823	0.80	32,517	113	6,759	25,854	204
1994-97 ave.	38,855	0.79	30,810	83	6,161	24,715	197
1999	43,137	0.79	34,156	91	7,031	27,216	204
2000	43,681	0.79	34,564	91	6,895	27,760	204
2001	44,225	0.79	34,972	91	6,804	28,259	204
2002	44,634	0.79	35,380	91	6,713	28,758	204
2003	45,314	0.79	35,879	91	6,713	29,257	204
2004	45,994	0.79	36,424	91	6,759	29,756	204
2005	46,675	0.79	36,968	91	6,804	30,255	204
2006	47,491	0.79	37,557	91	6,895	30,753	204
2007	48,172	0.79	38,147	91	6,985	31,253	204
<b>Argentina</b>							
1994	9,280	0.81	7,563	0	7,150	375	216
1995	9,927	0.82	8,091	0	7,781	376	150
1996	10,550	0.81	8,597	0	8,150	427	170
1997	12,330	0.82	10,049	0	9,480	430	309
1994-97 ave.	10,522	0.81	8,575	0	8,140	402	211
1999	12,834	0.80	10,268	0	9,829	438	175
2000	13,190	0.80	10,552	0	10,081	469	177
2001	13,522	0.80	10,818	0	10,321	495	179
2002	13,935	0.80	11,148	0	10,630	515	183
2003	14,273	0.80	11,418	0	10,874	541	186
2004	14,709	0.80	11,768	0	11,192	572	189
2005	15,124	0.80	12,100	0	11,501	596	193
2006	15,518	0.80	12,414	0	11,801	610	196
2007	15,851	0.80	12,681	0	12,056	622	200
<b>Brazil</b>							
1994	21,599	0.79	16,977	0	11,471	5,300	640
1995	20,154	0.79	15,841	100	10,900	5,300	381
1996	19,100	0.79	15,013	200	10,000	5,350	244
1997	21,200	0.79	16,665	200	11,100	5,620	389
1994-97 ave.	20,513	0.79	16,124	125	10,868	5,393	414
1999	21,695	0.79	17,054	0	11,253	5,793	376
2000	22,571	0.79	17,743	0	11,590	6,140	389
2001	23,495	0.79	18,469	0	12,008	6,447	403
2002	24,192	0.79	19,017	0	12,339	6,666	416
2003	24,974	0.79	19,632	0	12,732	6,887	429
2004	25,693	0.79	20,197	0	13,070	7,115	441
2005	26,432	0.79	20,778	0	13,437	7,328	455
2006	27,182	0.79	21,367	0	13,820	7,533	469
2007	27,970	0.79	21,986	0	14,257	7,715	483

Continued--

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Canada</b>							
1994	1,122	0.79	886	820	16	1,690	5
1995	1,269	0.79	1,003	731	40	1,694	5
1996	1,474	0.79	1,164	650	86	1,728	5
1997	1,600	0.79	1,264	595	55	1,804	5
1994-97 ave.	1,366	0.79	1,079	699	49	1,729	5
1999	1,629	0.79	1,286	615	31	1,870	5
2000	1,663	0.79	1,314	611	31	1,894	5
2001	1,698	0.79	1,341	608	31	1,918	5
2002	1,724	0.79	1,361	607	31	1,937	5
2003	1,745	0.79	1,378	603	32	1,949	5
2004	1,770	0.79	1,398	603	32	1,969	6
2005	1,798	0.79	1,420	595	32	1,983	6
2006	1,823	0.79	1,440	587	33	1,994	6
2007	1,848	0.79	1,459	581	33	2,007	6
<b>Central America &amp; Caribbean</b>							
1994	396	0.79	314	896	47	1,162	36
1995	323	0.79	256	1,032	47	1,241	36
1996	327	0.80	262	1,099	47	1,313	37
1997	333	0.80	267	1,250	47	1,467	40
1994-97 ave.	345	0.80	275	1,069	47	1,296	37
1999	398	0.81	321	1,266	52	1,534	38
2000	409	0.81	330	1,271	55	1,546	38
2001	423	0.81	342	1,302	57	1,586	39
2002	441	0.81	355	1,322	60	1,617	40
2003	463	0.81	373	1,349	63	1,658	41
2004	486	0.81	392	1,378	66	1,703	42
2005	513	0.81	414	1,403	70	1,746	43
2006	544	0.81	438	1,426	73	1,790	44
2007	575	0.81	464	1,446	77	1,832	45
<b>Central &amp; Eastern Europe</b>							
1994	410	0.80	327	2,182	30	2,453	48
1995	412	0.77	318	2,071	68	2,312	78
1996	452	0.78	354	1,941	26	2,280	67
1997	599	0.68	407	2,073	25	2,457	65
1994-97 ave.	468	0.75	352	2,067	37	2,376	65
1999	562	0.80	449	2,181	8	2,622	69
2000	565	0.80	451	2,158	8	2,601	69
2001	571	0.80	456	2,214	8	2,662	69
2002	576	0.80	461	2,241	9	2,693	69
2003	582	0.80	466	2,306	9	2,763	69
2004	590	0.80	471	2,378	9	2,840	69
2005	595	0.80	476	2,455	9	2,922	70
2006	599	0.80	479	2,543	9	3,013	70
2007	605	0.80	484	2,596	9	3,071	70
<b>China</b>							
1994	8,090	0.81	6,554	50	1,275	5,329	0
1995	7,200	0.81	5,832	1,550	100	7,282	0
1996	8,000	0.81	6,480	3,750	25	10,205	0
1997	9,245	0.81	7,488	4,600	25	12,063	0
1994-97 ave.	8,134	0.81	6,589	2,488	356	8,720	0
1999	10,121	0.81	8,198	4,803	26	12,975	0
2000	10,676	0.81	8,648	5,090	24	13,714	0
2001	11,412	0.81	9,244	5,298	21	14,521	0
2002	12,175	0.81	9,861	5,640	18	15,483	0
2003	12,911	0.81	10,458	5,912	16	16,354	0
2004	13,489	0.81	10,926	6,254	14	17,166	0
2005	14,231	0.81	11,527	6,530	12	18,045	0
2006	15,027	0.81	12,172	6,840	11	19,001	0
2007	15,819	0.81	12,814	7,143	10	19,947	0

Continued---

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Czech Republic</b>							
1994	0	0.00	0	410	3	407	0
1995	18	0.83	15	375	5	385	0
1996	5	0.80	4	383	2	385	0
1997	5	0.80	4	383	2	385	0
1994-97 ave.	7	0.82	6	388	3	391	0
1999	5	0.82	4	391	0	395	0
2000	5	0.82	4	390	0	394	0
2001	5	0.81	4	405	0	409	0
2002	5	0.81	4	417	0	421	0
2003	5	0.82	4	427	0	431	0
2004	5	0.81	4	448	0	452	0
2005	5	0.81	4	460	0	464	0
2006	5	0.81	4	475	0	479	0
2007	5	0.81	4	478	0	482	0
<b>Egypt</b>							
1994	157	0.79	124	575	0	699	10
1995	144	0.78	112	419	0	521	20
1996	149	0.86	128	580	0	708	20
1997	235	0.92	216	525	0	751	10
1994-97 ave.	171	0.85	145	525	0	670	15
1999	166	0.89	148	623	0	770	12
2000	172	0.89	153	657	0	809	12
2001	177	0.99	176	678	0	853	13
2002	182	0.99	181	696	0	877	13
2003	188	0.99	186	718	0	904	14
2004	194	0.99	192	736	0	927	14
2005	199	0.99	198	758	0	955	14
2006	205	0.99	204	779	0	982	15
2007	212	0.99	210	803	0	1,012	15
<b>EU-15</b>							
1994	14,426	0.80	11,486	16,801	3,669	24,424	1,119
1995	13,647	0.80	10,905	15,791	4,071	22,599	1,145
1996	15,038	0.80	11,963	14,823	4,153	22,775	1,003
1997	15,400	0.80	12,274	15,345	4,053	23,519	1,050
1994-97 ave.	14,628	0.80	11,657	15,690	3,987	23,329	1,079
1999	16,194	0.79	12,747	15,541	4,099	24,185	1,123
2000	15,510	0.81	12,634	15,656	4,082	24,227	1,104
2001	15,303	0.82	12,619	15,591	4,091	24,124	1,099
2002	15,220	0.83	12,616	15,460	4,091	23,986	1,098
2003	15,329	0.82	12,548	15,409	4,088	23,880	1,087
2004	15,441	0.81	12,549	15,389	4,090	23,849	1,086
2005	15,451	0.81	12,534	15,449	4,089	23,901	1,079
2006	15,730	0.80	12,537	15,773	4,089	24,223	1,077
2007	15,731	0.80	12,537	16,049	4,089	24,501	1,073
<b>Former Soviet Union</b>							
1994	704	0.78	551	675	3	1,223	4
1995	386	0.80	308	534	0	842	4
1996	358	0.82	292	397	0	689	4
1997	354	0.82	289	405	0	694	4
1994-97 ave.	451	0.80	360	503	1	862	4
1999	271	0.92	251	444	0	694	4
2000	272	0.93	253	459	0	712	4
2001	281	0.94	263	483	0	746	4
2002	284	0.94	268	505	0	773	4
2003	293	0.95	278	537	0	815	4
2004	295	0.96	283	573	0	856	4
2005	297	0.97	286	609	0	895	4
2006	300	0.97	291	647	0	938	4
2007	300	0.98	295	685	0	980	4

Continued---

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Hungary</b>							
1994	10	0.80	8	450	16	442	0
1995	10	0.80	8	470	57	421	0
1996	5	1.60	8	460	20	448	0
1997	5	0.80	4	520	20	504	0
1994-97 ave.	8	0.93	7	475	28	454	0
1999	5	0.82	4	543	0	547	0
2000	5	0.82	4	512	0	516	0
2001	5	0.82	4	535	0	539	0
2002	5	0.82	4	535	0	539	0
2003	5	0.82	4	566	0	570	0
2004	5	0.82	4	589	0	593	0
2005	5	0.82	4	629	0	633	0
2006	5	0.82	4	670	0	674	0
2007	5	0.81	4	697	0	701	0
<b>India</b>							
1994	2,750	0.80	2,200	0	1,580	620	0
1995	4,046	0.79	3,200	0	2,600	490	110
1996	3,650	0.80	2,920	0	2,500	530	0
1997	4,700	0.80	3,744	0	3,000	600	144
1994-97 ave.	3,787	0.80	3,016	0	2,420	560	64
1999	4,566	0.80	3,653	0	3,414	239	0
2000	4,724	0.80	3,779	0	3,601	179	0
2001	4,931	0.80	3,945	0	3,772	173	0
2002	5,222	0.80	4,178	0	3,986	192	0
2003	5,597	0.80	4,478	0	4,131	347	0
2004	5,963	0.80	4,770	0	4,353	417	0
2005	6,291	0.80	5,033	0	4,545	488	0
2006	6,600	0.80	5,280	0	4,718	562	0
2007	6,883	0.80	5,506	0	4,882	624	0
<b>Indonesia</b>							
1994	100	0.80	80	578	0	680	51
1995	60	0.80	48	894	0	900	93
1996	0	0.00	0	1,104	0	1,065	132
1997	0	0.00	0	810	0	917	25
1994-97 ave.	40	0.80	32	847	0	891	75
1999	0	0.00	0	1,284	0	1,282	33
2000	0	0.00	0	1,333	0	1,332	34
2001	0	0.00	0	1,387	0	1,386	36
2002	0	0.00	0	1,441	0	1,440	37
2003	0	0.00	0	1,499	0	1,498	39
2004	0	0.00	0	1,559	0	1,558	40
2005	0	0.00	0	1,621	0	1,619	42
2006	0	0.00	0	1,685	0	1,683	44
2007	0	0.00	0	1,751	0	1,749	45
<b>Iran</b>							
1994	122	0.80	98	500	0	598	0
1995	124	0.80	99	560	0	659	0
1996	124	0.80	99	540	0	639	0
1997	124	0.80	99	570	0	669	0
1994-97 ave.	124	0.80	99	543	0	641	0
1999	127	0.80	101	597	0	698	4
2000	128	0.80	102	602	0	706	0
2001	130	0.80	104	606	0	710	0
2002	131	0.80	105	610	0	715	0
2003	132	0.80	106	616	0	720	2
2004	134	0.80	107	622	0	724	7
2005	135	0.80	108	629	0	730	15
2006	136	0.80	109	633	0	735	22
2007	138	0.80	110	638	0	741	30

Continued--

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Japan</b>							
1994	3,760	0.77	2,880	857	2	3,700	119
1995	3,700	0.78	2,870	750	2	3,625	112
1996	3,810	0.77	2,935	825	2	3,683	187
1997	3,800	0.78	2,950	900	2	3,843	192
1994-97 ave.	3,768	0.77	2,909	833	2	3,713	153
1999	3,781	0.75	2,840	646	2	3,484	130
2000	3,805	0.75	2,858	620	2	3,477	130
2001	3,856	0.75	2,897	572	2	3,467	130
2002	3,893	0.75	2,925	530	2	3,454	129
2003	3,926	0.75	2,950	491	2	3,440	129
2004	3,925	0.75	2,949	473	2	3,421	128
2005	3,935	0.75	2,956	448	2	3,403	127
2006	3,939	0.75	2,959	422	2	3,380	127
2007	3,944	0.75	2,963	390	2	3,352	126
<b>Malaysia</b>							
1994	510	0.80	410	450	5	850	102
1995	538	0.80	432	500	5	932	97
1996	380	0.80	305	678	5	983	92
1997	355	0.80	284	525	5	850	46
1994-97 ave.	446	0.80	358	538	5	904	84
1999	580	0.80	464	616	5	1,073	96
2000	596	0.80	477	637	5	1,106	99
2001	616	0.80	493	660	5	1,144	103
2002	636	0.80	509	686	5	1,186	106
2003	659	0.80	527	714	5	1,232	111
2004	683	0.80	546	745	5	1,282	115
2005	708	0.80	567	777	5	1,334	120
2006	734	0.80	587	812	5	1,389	125
2007	759	0.80	608	849	5	1,446	130
<b>Mexico</b>							
1994	2,330	0.80	1,864	360	0	2,224	150
1995	2,436	0.80	1,949	350	0	2,299	150
1996	2,690	0.80	2,152	200	0	2,352	150
1997	3,125	0.83	2,600	200	0	2,800	150
1994-97 ave.	2,645	0.81	2,141	278	0	2,419	150
1999	3,700	0.80	2,960	238	0	3,197	50
2000	3,882	0.80	3,106	250	0	3,354	52
2001	4,036	0.80	3,229	269	0	3,497	53
2002	4,176	0.80	3,341	287	0	3,627	54
2003	4,313	0.80	3,450	310	0	3,759	55
2004	4,448	0.80	3,558	331	0	3,889	55
2005	4,593	0.80	3,674	353	0	4,025	57
2006	4,739	0.80	3,791	376	0	4,164	60
2007	4,893	0.80	3,915	400	0	4,312	63
<b>Philippines</b>							
1994	105	0.80	84	899	0	942	234
1995	135	0.80	108	900	0	1,106	136
1996	135	0.80	108	965	0	1,114	95
1997	138	0.80	111	960	0	1,060	106
1994-97 ave.	128	0.80	103	931	0	1,056	143
1999	259	0.80	207	982	0	1,184	97
2000	270	0.80	216	1,042	0	1,253	102
2001	275	0.80	220	1,100	0	1,315	107
2002	275	0.80	220	1,173	0	1,388	112
2003	281	0.80	225	1,249	0	1,468	118
2004	285	0.80	228	1,328	0	1,550	124
2005	291	0.80	233	1,409	0	1,635	131
2006	294	0.80	235	1,486	0	1,715	137
2007	296	0.80	237	1,569	0	1,800	143

Continued--

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Poland</b>							
1994	45	0.80	36	700	0	710	36
1995	0	0.00	0	780	0	780	60
1996	50	0.80	40	700	0	740	60
1997	110	0.82	90	750	0	840	60
1994-97 ave.	51	0.81	42	733	0	768	54
1999	110	0.81	90	725	0	815	60
2000	110	0.81	90	728	0	818	60
2001	110	0.82	90	740	0	830	60
2002	110	0.82	90	748	0	838	60
2003	110	0.82	90	762	0	852	60
2004	110	0.82	90	782	0	872	60
2005	110	0.82	90	798	0	888	60
2006	110	0.82	90	808	0	898	60
2007	110	0.82	90	817	0	907	60
<b>Russia</b>							
1994	324	0.77	250	205	3	452	0
1995	250	0.80	200	35	0	235	0
1996	224	0.80	179	90	0	269	0
1997	220	0.80	176	90	0	266	0
1994-97 ave.	255	0.79	201	105	1	306	0
1999	148	0.99	146	129	0	275	0
2000	148	1.00	148	137	0	285	0
2001	153	1.01	154	156	0	310	0
2002	155	1.02	158	174	0	332	0
2003	160	1.03	164	201	0	365	0
2004	163	1.04	169	233	0	402	0
2005	165	1.05	173	265	0	438	0
2006	168	1.05	177	299	0	476	0
2007	168	1.07	180	334	0	514	0
<b>Saudi Arabia</b>							
1994	0	0.00	0	445	0	445	45
1995	0	0.00	0	450	0	450	45
1996	0	0.00	0	450	0	460	35
1997	0	0.00	0	450	0	460	25
1994-97 ave.	0	0.00	0	449	0	454	38
1999	0	0.00	0	464	0	457	68
2000	0	0.00	0	476	0	482	63
2001	0	0.00	0	494	0	501	55
2002	0	0.00	0	515	0	523	47
2003	0	0.00	0	540	0	548	39
2004	0	0.00	0	568	0	571	37
2005	0	0.00	0	596	0	595	38
2006	0	0.00	0	626	0	623	41
2007	0	0.00	0	653	0	654	39
<b>Slovakia</b>							
1994	0	0.00	0	182	0	182	0
1995	0	0.00	0	182	0	182	0
1996	0	0.00	0	182	0	182	0
1997	0	0.00	0	185	0	185	0
1994-97 ave.	0	0.00	0	183	0	183	0
1999	0	0.00	0	190	0	190	0
2000	0	0.00	0	189	0	189	0
2001	0	0.00	0	193	0	193	0
2002	0	0.00	0	195	0	195	0
2003	0	0.00	0	199	0	199	0
2004	0	0.00	0	204	0	204	0
2005	0	0.00	0	207	0	207	0
2006	0	0.00	0	210	0	210	0
2007	0	0.00	0	211	0	211	0

Continued--

Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>South Korea</b>							
1994	1,147	0.79	908	960	0	1,767	464
1995	1,183	0.79	937	1,059	0	1,915	545
1996	1,382	0.79	1,095	813	0	2,008	445
1997	1,190	0.79	943	800	0	1,872	316
1994-97 ave.	1,226	0.79	971	908	0	1,891	443
1999	1,209	0.90	1,088	1,000	0	2,084	467
2000	1,251	0.90	1,123	1,062	0	2,166	485
2001	1,262	0.90	1,138	1,113	0	2,235	501
2002	1,258	0.91	1,144	1,141	0	2,276	510
2003	1,260	0.91	1,150	1,193	0	2,330	523
2004	1,274	0.92	1,170	1,247	0	2,401	539
2005	1,300	0.91	1,181	1,311	0	2,475	556
2006	1,326	0.90	1,189	1,368	0	2,542	571
2007	1,351	0.89	1,200	1,429	0	2,613	587
<b>Thailand</b>							
1994	441	0.72	318	817	0	1,135	0
1995	600	0.78	468	830	0	1,298	0
1996	715	0.78	558	950	0	1,508	0
1997	765	0.78	597	940	0	1,537	0
1994-97 ave.	630	0.77	485	884	0	1,370	0
1999	616	0.78	481	1,019	0	1,500	0
2000	651	0.78	507	1,023	0	1,530	0
2001	662	0.78	516	1,063	0	1,579	0
2002	683	0.78	533	1,099	0	1,632	0
2003	693	0.78	540	1,140	0	1,680	0
2004	702	0.78	548	1,189	0	1,737	0
2005	716	0.78	559	1,236	0	1,795	0
2006	726	0.78	566	1,283	0	1,849	0
2007	731	0.78	570	1,330	0	1,900	0
<b>Turkey</b>							
1994	245	0.80	196	220	0	416	0
1995	255	0.80	204	300	0	504	0
1996	220	0.80	176	350	0	526	0
1997	240	0.80	192	425	0	617	0
1994-97 ave.	240	0.80	192	324	0	516	0
1999	304	0.80	243	475	0	727	14
2000	310	0.80	248	491	0	753	0
2001	315	0.80	252	522	0	768	6
2002	319	0.80	256	571	0	798	35
2003	323	0.80	259	591	0	812	73
2004	327	0.80	262	605	0	816	124
2005	332	0.80	266	599	0	809	180
2006	336	0.80	269	592	0	820	221
2007	340	0.80	272	603	0	837	259
<b>Ukraine</b>							
1994	40	0.75	30	225	0	255	4
1995	40	0.75	30	250	0	280	4
1996	35	0.80	28	100	0	128	4
1997	35	0.80	28	105	0	133	4
1994-97 ave.	38	0.77	29	170	0	199	4
1999	32	0.81	26	100	0	126	4
2000	33	0.83	27	101	0	128	4
2001	34	0.83	28	102	0	130	4
2002	34	0.84	29	103	0	132	4
2003	37	0.85	31	104	0	135	4
2004	35	0.86	30	105	0	135	4
2005	35	0.87	30	106	0	136	4
2006	35	0.88	31	107	0	138	4
2007	35	0.88	31	108	0	139	4

Continued---



Table 22--Soymeal Supply and Use Projections--continued

	Crush	Yield	Production	Imports	Exports	Consumption	Ending stocks
	1,000 ha	Percent			--- 1,000 tons ---		
<b>Other Central &amp; Eastern Europe</b>							
1994	355	0.80	283	440	11	712	12
1995	384	0.77	295	264	6	544	18
1996	392	0.77	302	216	4	525	7
1997	479	0.65	309	235	3	543	5
1994-97 ave.	403	0.74	297	289	6	581	11
1999	442	0.79	351	332	8	675	9
2000	445	0.79	353	339	8	684	9
2001	451	0.79	358	341	8	691	9
2002	456	0.80	363	346	9	700	9
2003	462	0.80	368	352	9	711	9
2004	470	0.79	373	355	9	719	9
2005	475	0.80	378	361	9	730	10
2006	479	0.80	381	380	9	752	10
2007	485	0.80	386	393	9	770	10
<b>Other Former Soviet Union</b>							
1994	340	0.80	271	245	0	516	0
1995	96	0.81	78	249	0	327	0
1996	99	0.86	85	207	0	292	0
1997	99	0.86	85	210	0	295	0
1994-97 ave.	159	0.82	130	228	0	358	0
1999	91	0.86	78	215	0	293	0
2000	91	0.86	78	221	0	299	0
2001	94	0.86	81	225	0	306	0
2002	94	0.86	81	228	0	309	0
2003	96	0.86	83	232	0	315	0
2004	97	0.86	83	235	0	318	0
2005	97	0.86	83	238	0	321	0
2006	97	0.86	83	241	0	324	0
2007	97	0.86	83	243	0	326	0
<b>Other N. Africa &amp; Middle East</b>							
1994	708	0.77	543	1,273	8	1,789	60
1995	639	0.77	490	1,480	9	1,969	52
1996	819	0.77	628	1,404	9	2,028	47
1997	811	0.79	640	1,472	9	2,108	42
1994-97 ave.	744	0.77	575	1,407	9	1,974	50
1999	809	0.77	622	1,555	8	2,167	45
2000	837	0.77	644	1,579	8	2,214	46
2001	869	0.77	668	1,624	8	2,282	47
2002	902	0.77	693	1,663	8	2,347	49
2003	936	0.77	720	1,716	8	2,426	50
2004	972	0.77	747	1,766	8	2,504	52
2005	1,009	0.77	776	1,818	8	2,584	54
2006	1,047	0.77	805	1,868	8	2,663	55
2007	1,085	0.77	834	1,916	8	2,740	57
<b>Other South America</b>							
1994	1,883	0.79	1,484	1,137	794	1,834	160
1995	1,896	0.79	1,494	1,488	1,009	1,894	239
1996	2,104	0.79	1,660	1,493	1,159	2,003	230
1997	2,303	0.79	1,813	1,635	1,273	2,230	175
1994-97 ave.	2,047	0.79	1,613	1,438	1,059	1,990	201
1999	2,344	0.79	1,848	1,629	1,298	2,180	178
2000	2,433	0.79	1,919	1,584	1,319	2,183	179
2001	2,550	0.79	2,011	1,577	1,343	2,240	183
2002	2,667	0.79	2,103	1,573	1,369	2,302	188
2003	2,771	0.79	2,185	1,587	1,392	2,374	194
2004	2,871	0.79	2,264	1,616	1,414	2,459	201
2005	2,968	0.79	2,340	1,616	1,440	2,512	206
2006	3,056	0.79	2,410	1,620	1,465	2,561	210
2007	3,144	0.79	2,479	1,629	1,491	2,613	214

Table 23-- Soyoil Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	Percent		---	1,000 tons	---	Kgs.	1,000 tons	
<b>World</b>									
1994	111,935	0.18	20,082	6,144	6,149	19,556	18,882	3.3	1,909
1995	110,075	0.18	19,792	5,239	5,110	19,715	19,037	3.3	2,118
1996	114,284	0.18	20,415	5,959	5,653	20,925	20,236	3.5	1,914
1997	123,226	0.18	22,235	6,385	6,313	22,251	21,545	3.6	1,976
1994-97 ave.	114,880	0.18	20,631	5,932	5,806	20,612	19,925	3.4	1,979
1999	128,524	0.18	23,172	6,652	6,652	23,050	21,592	3.5	2,208
2000	130,852	0.18	23,696	6,704	6,704	23,646	22,255	3.6	2,258
2001	133,912	0.18	24,388	6,831	6,831	24,386	22,926	3.7	2,260
2002	136,883	0.18	24,879	6,904	6,904	24,901	23,448	3.7	2,238
2003	140,399	0.18	25,494	6,964	6,964	25,470	23,960	3.7	2,262
2004	143,697	0.18	26,048	7,025	7,025	26,019	24,509	3.8	2,291
2005	147,118	0.18	26,675	7,165	7,165	26,653	25,141	3.8	2,314
2006	150,946	0.18	27,323	7,288	7,288	27,279	25,765	3.9	2,357
2007	154,314	0.18	27,946	7,398	7,398	27,914	26,394	3.9	2,389
<b>United States</b>									
1994	38,242	0.19	7,082	8	1,216	5,858	5,858	22.3	516
1995	37,273	0.19	6,913	43	450	6,108	6,108	23.0	914
1996	39,080	0.18	7,141	24	927	6,462	6,462	24.1	690
1997	40,823	0.19	7,697	27	1,134	6,577	6,577	24.3	703
1994-97 ave.	38,855	0.19	7,208	26	932	6,251	6,251	23.4	706
1999	43,137	0.19	8,060	29	1,247	6,736	6,736	24.5	912
2000	43,681	0.19	8,169	29	1,315	6,849	6,849	24.7	946
2001	44,225	0.19	8,278	29	1,383	6,963	6,963	24.9	907
2002	44,634	0.19	8,362	29	1,361	7,075	7,075	25.1	862
2003	45,314	0.19	8,496	29	1,349	7,190	7,190	25.3	848
2004	45,994	0.19	8,632	32	1,338	7,314	7,314	25.5	860
2005	46,675	0.19	8,768	34	1,361	7,439	7,439	25.8	862
2006	47,491	0.19	8,929	36	1,383	7,564	7,564	26.0	880
2007	48,172	0.19	9,065	39	1,406	7,689	7,689	26.2	889
<b>Argentina</b>									
1994	9,280	0.17	1,605	0	1,477	95	92	2.7	67
1995	9,927	0.17	1,717	0	1,634	100	97	2.8	50
1996	10,550	0.17	1,825	0	1,725	100	95	2.7	50
1997	12,330	0.17	2,133	0	2,000	102	97	2.7	81
1994-97 ave.	10,522	0.17	1,820	0	1,709	99	95	2.7	62
1999	12,834	0.17	2,163	0	2,050	111	105	2.9	59
2000	13,190	0.17	2,221	0	2,104	115	110	3.0	61
2001	13,522	0.17	2,351	0	2,227	120	114	3.1	65
2002	13,935	0.17	2,391	0	2,267	123	117	3.1	66
2003	14,273	0.17	2,437	0	2,309	127	120	3.2	67
2004	14,709	0.17	2,480	0	2,347	132	125	3.3	68
2005	15,124	0.17	2,557	0	2,418	137	130	3.4	71
2006	15,518	0.17	2,623	0	2,479	142	135	3.5	73
2007	15,851	0.17	2,684	0	2,535	147	140	3.6	75
<b>Australia</b>									
1994	117	0.17	20	33	2	51	51	2.8	0
1995	125	0.18	22	33	2	53	53	2.9	0
1996	140	0.18	25	37	2	60	60	3.3	0
1997	197	0.18	35	40	2	73	73	3.9	0
1994-97 ave.	145	0.18	26	36	2	59	59	3.2	0
1999	161	0.18	29	39	2	66	66	3.5	0
2000	165	0.18	30	40	2	68	68	3.5	0
2001	168	0.18	30	40	2	68	68	3.5	0
2002	171	0.18	31	41	2	70	70	3.6	0
2003	175	0.18	31	41	2	70	70	3.6	0
2004	178	0.18	32	41	2	71	71	3.6	0
2005	182	0.18	33	41	2	72	72	3.6	0
2006	185	0.18	33	40	2	71	71	3.6	0
2007	189	0.18	34	40	2	72	72	3.6	0

Continued---

Table 23--Soyoil Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	Percent		---	1,000 tons	---	Kgs.	1,000 tons	
<b>Bangladesh</b>									
1994	0	0.00	0	425	0	385	345	2.9	72
1995	0	0.00	0	275	0	295	250	2.0	52
1996	0	0.00	0	275	0	270	235	1.9	57
1997	0	0.00	0	275	0	275	235	1.8	57
1994-97 ave.	0	0.00	0	313	0	306	266	2.2	60
1999	0	0.00	0	260	0	259	219	1.7	52
2000	0	0.00	0	266	0	266	225	1.7	52
2001	0	0.00	0	273	0	273	232	1.7	52
2002	0	0.00	0	278	0	278	238	1.7	52
2003	0	0.00	0	285	0	285	245	1.7	52
2004	0	0.00	0	291	0	291	250	1.7	52
2005	0	0.00	0	297	0	297	256	1.8	52
2006	0	0.00	0	303	0	303	262	1.8	52
2007	0	0.00	0	310	0	310	268	1.8	52
<b>Brazil</b>									
1994	21,599	0.19	4,061	162	1,643	2,500	2,310	14.4	224
1995	20,154	0.19	3,749	175	1,350	2,600	2,410	14.8	198
1996	19,100	0.19	3,556	200	1,130	2,660	2,470	15.0	164
1997	21,200	0.19	3,945	200	1,405	2,685	2,495	15.0	219
1994-97 ave.	20,513	0.19	3,828	184	1,382	2,611	2,421	14.8	201
1999	21,695	0.19	4,037	181	1,408	2,805	2,603	15.4	226
2000	22,571	0.19	4,200	179	1,380	2,989	2,782	16.3	235
2001	23,495	0.19	4,372	180	1,412	3,130	2,916	16.9	245
2002	24,192	0.19	4,502	181	1,448	3,228	3,008	17.3	252
2003	24,974	0.19	4,647	179	1,536	3,282	3,056	17.4	260
2004	25,693	0.19	4,781	180	1,549	3,404	3,172	17.9	268
2005	26,432	0.19	4,919	181	1,575	3,517	3,278	18.4	276
2006	27,182	0.19	5,058	183	1,590	3,643	3,398	18.9	284
2007	27,970	0.19	5,205	183	1,598	3,781	3,529	19.5	293
<b>Central America &amp; Caribbean</b>									
1994	395	0.18	70	222	7	284	284	4.2	19
1995	383	0.17	67	205	3	264	264	3.8	24
1996	327	0.18	59	229	3	278	278	4.0	31
1997	333	0.18	60	276	10	320	320	4.5	37
1994-97 ave.	360	0.18	64	233	6	287	287	4.1	28
1999	398	0.17	69	231	3	296	296	4.0	37
2000	409	0.17	71	236	3	303	303	4.1	38
2001	423	0.17	73	241	3	310	310	4.1	39
2002	441	0.17	76	244	3	316	316	4.1	40
2003	463	0.17	80	246	3	322	322	4.1	40
2004	486	0.17	84	248	3	328	328	4.1	41
2005	513	0.17	89	250	3	335	335	4.2	42
2006	544	0.17	94	251	3	341	341	4.2	43
2007	575	0.17	99	251	3	347	346	4.2	43
<b>China</b>									
1994	8,090	0.15	1,214	1,702	89	2,527	2,527	2.1	350
1995	7,200	0.15	1,108	1,445	66	2,572	2,572	2.1	265
1996	8,000	0.15	1,231	1,674	150	2,795	2,795	2.3	225
1997	9,245	0.15	1,422	1,800	20	3,227	3,227	2.6	200
1994-97 ave.	8,134	0.15	1,244	1,655	81	2,780	2,780	2.3	260
1999	10,121	0.15	1,558	2,000	17	3,531	3,311	2.6	243
2000	10,676	0.15	1,644	2,080	16	3,695	3,475	2.8	257
2001	11,412	0.15	1,757	2,111	16	3,834	3,615	2.8	274
2002	12,175	0.15	1,875	2,106	16	3,947	3,726	2.9	293
2003	12,911	0.15	1,988	2,075	16	4,029	3,809	3.0	310
2004	13,489	0.15	2,077	2,053	16	4,100	3,880	3.0	324
2005	14,231	0.15	2,191	2,099	15	4,257	4,037	3.1	342
2006	15,027	0.15	2,314	2,132	15	4,412	4,192	3.2	361
2007	15,819	0.15	2,436	2,136	15	4,538	4,318	3.3	380

Continued---

Table 23--Soyoil Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	Percent		---	1,000 tons	---	Kgs.	1,000 tons	
<b>Egypt</b>									
1994	157	0.18	28	127	0	155	140	2.2	0
1995	144	0.15	22	98	0	120	110	1.7	0
1996	149	0.17	25	90	0	115	105	1.6	0
1997	235	0.17	39	100	0	139	129	2.0	0
1994-97 ave.	171	0.17	29	104	0	132	121	1.9	0
1999	166	0.18	29	103	0	133	133	1.9	0
2000	172	0.18	30	106	0	136	137	2.0	0
2001	177	0.18	31	108	0	139	140	2.0	0
2002	182	0.18	32	110	0	142	142	2.0	0
2003	188	0.18	33	112	0	145	145	2.0	0
2004	194	0.18	34	114	0	148	148	2.0	0
2005	199	0.18	35	116	0	151	151	2.0	0
2006	205	0.18	36	118	0	154	155	2.0	0
2007	212	0.18	37	120	0	157	158	2.0	0
<b>EU-15</b>									
1994	14,426	0.18	2,580	633	1,293	1,920	1,690	4.5	241
1995	13,647	0.18	2,465	542	1,112	1,951	1,706	4.6	185
1996	15,038	0.18	2,709	518	1,218	1,990	1,740	4.6	204
1997	15,400	0.18	2,771	552	1,208	2,112	1,856	4.9	207
1994-97 ave.	14,628	0.18	2,631	561	1,208	1,993	1,748	4.7	209
1999	16,194	0.18	2,879	580	1,378	2,081	1,884	5.0	240
2000	15,510	0.18	2,853	583	1,321	2,115	1,916	5.0	240
2001	15,303	0.19	2,850	586	1,226	2,210	1,954	5.1	240
2002	15,220	0.19	2,849	589	1,223	2,215	1,985	5.2	240
2003	15,329	0.18	2,834	592	1,144	2,282	2,017	5.3	240
2004	15,441	0.18	2,834	595	1,140	2,289	2,039	5.3	240
2005	15,451	0.18	2,831	598	1,136	2,293	2,064	5.4	240
2006	15,730	0.18	2,831	601	1,147	2,285	2,070	5.4	240
2007	15,731	0.18	2,831	604	1,135	2,300	2,093	5.4	240
<b>India</b>									
1994	2,750	0.18	495	60	0	555	555	0.6	0
1995	4,046	0.18	712	60	0	772	772	0.8	0
1996	3,650	0.18	657	85	0	742	742	0.8	0
1997	4,700	0.18	846	100	0	946	946	1.0	0
1994-97 ave.	3,787	0.18	678	76	0	754	754	0.8	0
1999	4,566	0.18	822	126	0	948	948	0.9	0
2000	4,724	0.18	850	134	0	984	985	1.0	0
2001	4,931	0.18	888	145	0	1,033	1,032	1.0	0
2002	5,222	0.18	940	157	0	1,097	1,097	1.0	0
2003	5,597	0.18	1,008	170	0	1,178	1,177	1.1	0
2004	5,963	0.18	1,073	184	0	1,257	1,257	1.2	0
2005	6,291	0.18	1,132	207	0	1,339	1,340	1.2	0
2006	6,600	0.18	1,188	225	0	1,413	1,413	1.3	0
2007	6,883	0.18	1,239	245	0	1,484	1,484	1.3	0
<b>Iran</b>									
1994	122	0.17	21	500	0	521	521	8.1	0
1995	124	0.17	21	340	0	361	361	5.5	0
1996	124	0.17	21	380	0	401	401	5.9	0
1997	124	0.17	21	410	0	431	431	6.3	0
1994-97 ave.	124	0.17	21	408	0	429	429	6.4	0
1999	127	0.18	22	451	0	469	469	6.5	8
2000	128	0.17	22	462	0	482	482	6.5	10
2001	130	0.17	23	474	0	495	495	6.6	11
2002	131	0.17	23	486	0	507	507	6.6	14
2003	132	0.18	23	498	0	520	519	6.6	15
2004	134	0.17	23	510	0	532	532	6.6	16
2005	135	0.18	24	522	0	545	545	6.7	17
2006	136	0.17	24	534	0	559	559	6.7	16
2007	138	0.18	24	546	0	573	572	6.7	13

Continued---

Table 23--Soyoil Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	Percent			1,000 tons			Kgs.	1,000 tons
<b>Japan</b>									
1994	3,760	0.18	670	16	0	678	670	5.4	35
1995	3,700	0.18	666	1	0	665	657	5.2	37
1996	3,810	0.18	690	2	0	694	687	5.5	35
1997	3,800	0.18	684	2	0	696	690	5.5	25
1994-97 ave.	3,768	0.18	678	5	0	683	676	5.4	33
1999	3,781	0.18	688	2	0	691	686	5.4	44
2000	3,805	0.18	693	2	0	695	691	5.4	44
2001	3,856	0.18	703	2	0	704	700	5.5	44
2002	3,893	0.18	709	3	0	711	708	5.6	45
2003	3,926	0.18	715	3	0	717	714	5.6	45
2004	3,925	0.18	715	3	0	717	715	5.6	45
2005	3,935	0.18	717	3	0	720	717	5.6	45
2006	3,939	0.18	717	3	0	720	718	5.6	45
2007	3,944	0.18	718	3	0	721	719	5.6	45
<b>Malaysia</b>									
1994	510	0.18	92	30	98	22	22	1.1	17
1995	538	0.18	97	50	93	25	25	1.3	46
1996	380	0.18	68	60	94	32	32	1.6	48
1997	355	0.18	64	65	106	35	35	1.7	36
1994-97 ave.	446	0.18	80	51	98	29	29	1.4	37
1999	580	0.18	105	61	129	36	36	1.7	32
2000	596	0.18	108	61	130	38	38	1.7	32
2001	616	0.18	111	62	133	39	40	1.8	34
2002	636	0.18	115	62	134	42	42	1.8	35
2003	659	0.18	119	63	137	44	44	1.9	36
2004	683	0.18	123	63	140	45	47	2.0	37
2005	708	0.18	128	63	142	48	49	2.0	39
2006	734	0.18	133	64	145	50	52	2.1	40
2007	759	0.18	137	64	148	52	54	2.2	41
<b>Mexico</b>									
1994	2,330	0.17	396	65	25	445	438	4.7	10
1995	2,436	0.17	415	59	33	444	437	4.6	7
1996	2,690	0.17	457	91	25	523	515	5.3	7
1997	3,125	0.17	531	90	35	586	578	5.8	7
1994-97 ave.	2,645	0.17	450	76	30	500	492	5.1	8
1999	3,700	0.17	629	49	20	657	649	6.3	16
2000	3,882	0.17	660	38	20	678	669	6.4	17
2001	4,036	0.17	686	34	20	700	691	6.5	18
2002	4,176	0.17	710	27	20	717	709	6.5	18
2003	4,313	0.17	734	22	20	735	727	6.6	18
2004	4,448	0.17	757	15	20	751	742	6.6	19
2005	4,593	0.17	781	8	20	769	760	6.7	19
2006	4,739	0.17	806	0	20	786	777	6.7	20
2007	4,893	0.17	832	0	30	802	803	6.9	20
<b>Pakistan</b>									
1994	38	0.16	6	167	0	165	159	1.2	13
1995	17	0.18	3	124	0	135	133	1.0	5
1996	44	0.16	7	150	0	157	155	1.1	5
1997	42	0.17	7	150	0	157	155	1.0	5
1994-97 ave.	35	0.16	6	148	0	154	151	1.1	7
1999	57	0.17	10	160	0	170	163	1.0	5
2000	58	0.17	10	164	0	174	167	1.0	5
2001	60	0.18	11	168	0	179	171	1.0	5
2002	62	0.18	11	172	0	183	176	1.0	5
2003	65	0.18	12	176	0	188	180	1.0	5
2004	67	0.18	12	179	0	191	184	1.0	5
2005	69	0.18	13	182	0	195	187	1.0	5
2006	71	0.19	13	186	0	199	191	1.0	6
2007	74	0.19	14	189	0	203	195	1.0	6

Continued---

Table 23--Soyoil Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	Percent		---	1,000 tons	---	Kgs.	1,000 tons	
<b>Turkey</b>									
1994	245	0.18	44	143	0	187	175	2.9	0
1995	255	0.18	46	100	0	146	134	2.2	0
1996	220	0.18	40	125	0	165	153	2.4	0
1997	240	0.19	45	125	0	170	158	2.5	0
1994-97 ave.	240	0.18	44	123	0	167	155	2.5	0
1999	304	0.18	56	138	0	193	178	2.7	0
2000	310	0.18	57	142	0	199	183	2.7	0
2001	315	0.18	58	146	0	204	188	2.8	0
2002	319	0.18	59	150	0	209	192	2.8	0
2003	323	0.18	60	154	0	214	197	2.8	0
2004	327	0.18	60	158	0	218	202	2.9	0
2005	332	0.18	61	163	0	224	207	2.9	0
2006	336	0.18	62	167	0	229	212	2.9	0
2007	340	0.18	63	171	0	234	218	3.0	0
<b>Other Asia &amp; Oceania</b>									
1994	4,530	1.20	772	261	100	920	874	1.5	154
1995	4,728	1.31	825	285	100	989	945	1.6	175
1996	4,984	1.01	845	360	108	1,034	990	1.6	238
1997	4,642	1.01	788	385	96	1,095	1,052	1.7	226
1994-97 ave.	4,721	1.24	808	323	101	1,010	965	1.6	198
1999	4,719	1.11	869	366	101	1,136	1,034	1.6	167
2000	4,836	1.12	896	375	109	1,176	1,058	1.6	152
2001	4,903	1.14	941	389	98	1,230	1,121	1.7	155
2002	4,969	1.13	930	398	107	1,229	1,118	1.7	147
2003	5,056	1.14	975	413	115	1,267	1,152	1.7	152
2004	5,095	1.15	991	422	124	1,299	1,179	1.7	141
2005	5,204	1.17	1,019	436	133	1,334	1,208	1.7	130
2006	5,305	1.18	1,048	448	131	1,371	1,243	1.8	123
2007	5,404	1.20	1,078	460	140	1,405	1,271	1.8	116
<b>Other N. Africa &amp; Middle East</b>									
1994	708	0.18	127	565	8	662	634	8.6	53
1995	639	0.18	115	436	8	566	537	7.1	30
1996	819	0.18	147	550	8	695	666	8.5	24
1997	811	0.18	150	607	8	748	717	8.8	25
1994-97 ave.	744	0.18	135	540	8	668	639	8.3	33
1999	809	0.18	146	564	8	702	671	7.8	25
2000	837	0.18	151	577	8	719	689	7.7	26
2001	869	0.18	157	591	8	739	709	7.7	26
2002	902	0.18	163	605	8	759	729	7.7	27
2003	936	0.18	169	619	8	779	748	7.7	28
2004	972	0.18	175	631	8	798	767	7.6	28
2005	1,009	0.18	182	642	8	815	784	7.6	29
2006	1,047	0.18	189	653	8	833	803	7.6	30
2007	1,085	0.18	196	674	8	861	830	7.6	31
<b>Other South America</b>									
1994	1,883	0.18	344	575	179	747	737	5.9	69
1995	1,896	0.18	346	529	201	675	664	5.3	68
1996	2,104	0.18	387	579	220	731	720	5.6	83
1997	2,303	0.18	423	619	240	786	778	6.0	99
1994-97 ave.	2,047	0.18	375	576	210	735	725	5.7	80
1999	2,344	0.19	434	622	238	819	811	6.0	99
2000	2,433	0.19	453	624	243	834	826	6.0	98
2001	2,550	0.19	476	632	248	860	851	6.1	99
2002	2,667	0.19	500	637	258	879	871	6.2	99
2003	2,771	0.19	522	647	266	902	894	6.3	99
2004	2,871	0.19	543	657	277	923	914	6.3	99
2005	2,968	0.19	563	667	289	941	933	6.4	99
2006	3,056	0.19	583	677	300	960	951	6.4	99
2007	3,144	0.19	602	688	311	979	970	6.4	99

# Cotton

Growth in foreign consumption and production of cotton both slowed to negligible rates during the last 10 years and, while both have begun to rebound, they are not expected to return to their long-term average growth rate of 2.2 percent per year during the baseline. World cotton consumption is projected to expand approximately 1.7 percent annually during 1998-2007, underpinning the outlook for a relatively strong rate of import growth. However, a key uncertainty in the projection is the extent to which earlier gains in cotton consumption, associated with a shift in consumer fiber

preference toward cotton and away from synthetics, can be sustained.

Foreign production stagnated between 1985 and 1995, as smaller harvests in China and the FSU offset gains elsewhere. High levels of input use and poor water management have rendered useless much of the area abandoned in Central Asia during the 1990s, and this area is expected to remain out of production during the projection period. Pesticide resistance and competition from other crops has hampered production in China.

Figure 25  
**Cotton: Historical and projected world area and yield**

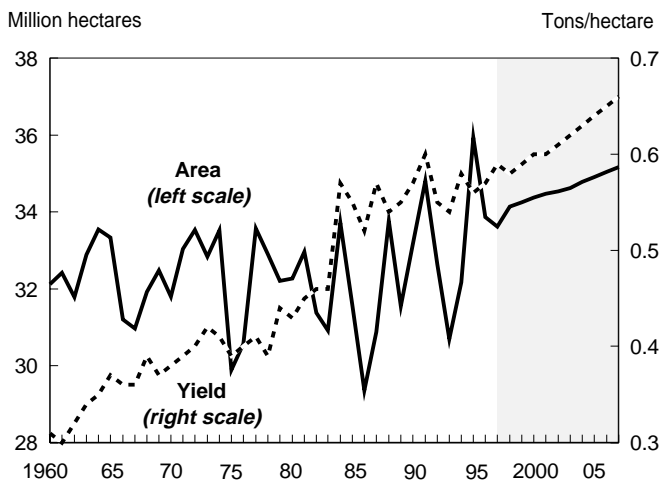


Figure 26  
**Cotton: Historical real prices**

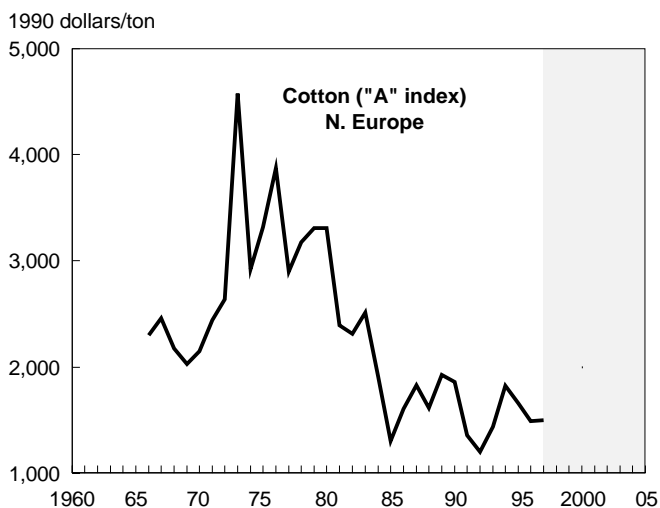


Figure 27  
**Cotton: Historical and projected world supply and use**

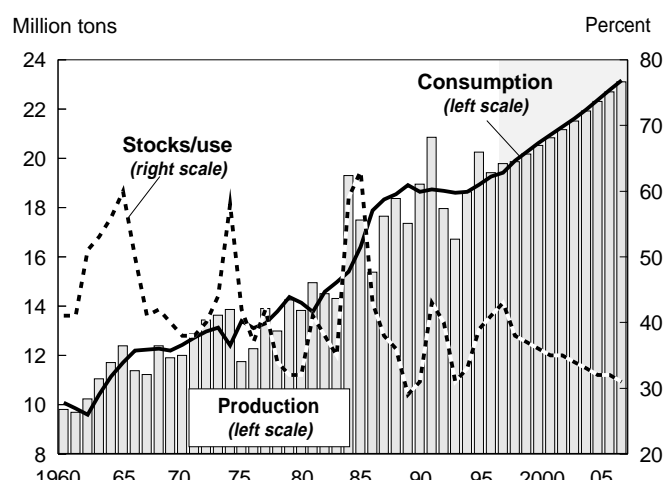
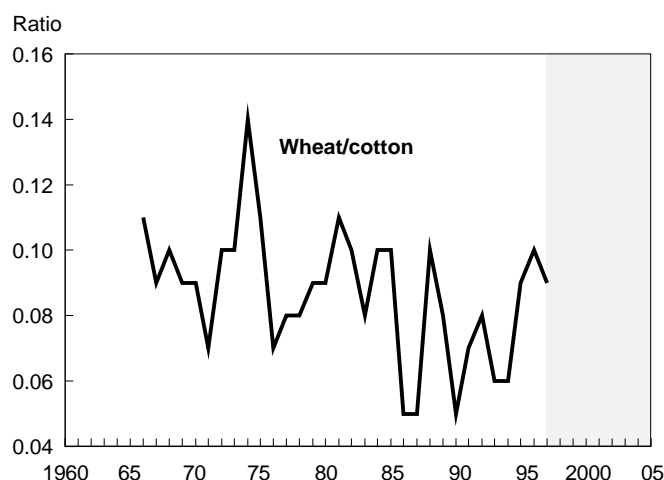


Figure 28  
**Cotton: Historical price ratios**



Note: USDA is prohibited from publishing cotton price projections.

Table 24--Cotton trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	2,047	1,671	1,495	1,589	1,701	1,528	1,549	1,573	1,597	1,620	1,643	1,676	1,710	1,744
Argentina	197	266	290	294	262	325	333	345	354	364	372	381	395	404
Australia	293	319	533	544	422	584	590	601	613	624	627	631	641	646
Brazil	33	22	0	0	14	0	0	0	0	0	0	0	0	0
China	40	5	2	2	12	10	10	10	10	10	10	9	9	9
European Union-15 1/	295	365	274	297	308	265	260	262	260	261	258	258	258	256
Egypt	67	19	45	76	52	62	64	65	66	67	69	70	72	73
Former Soviet Union 2/	1,947	1,495	1,346	1,275	1,516	1,422	1,450	1,439	1,442	1,456	1,485	1,492	1,492	1,520
Russia	145	0	0	0	36	91	129	118	104	91	126	109	95	128
Ukraine	44	33	27	22	31	20	20	20	20	20	20	20	20	20
Other Former Soviet Union	1,759	1,463	1,318	1,253	1,448	1,311	1,301	1,301	1,319	1,345	1,340	1,362	1,377	1,373
India	18	145	277	65	126	75	88	98	103	106	107	113	121	126
Mexico	40	102	87	54	71	33	34	32	29	26	32	38	45	51
Other Sub-Saharan Africa	142	244	219	183	197	296	300	304	307	312	315	318	324	326
Pakistan	32	312	26	65	109	108	126	135	176	195	217	235	248	257
Turkey	2	58	46	22	32	44	46	49	51	54	56	58	62	65
W. Africa (Franc zone)	584	609	735	772	675	831	841	857	869	885	893	905	926	933
Other	440	433	403	475	438	424	427	435	438	443	448	455	467	470
Total	6,176	6,065	5,777	5,715	5,933	6,008	6,118	6,206	6,315	6,423	6,532	6,641	6,771	6,880
<b>Importers</b>														
United States	4	89	88	3	46	1	1	1	1	1	1	1	1	1
Brazil	351	385	529	338	401	477	492	511	534	554	573	597	621	641
Canada	58	65	57	65	61	66	67	68	68	69	68	69	70	71
China	884	663	787	479	703	558	555	568	593	611	630	650	671	690
Central/East Europe	271	292	280	292	284	346	350	357	366	376	384	393	405	413
Czech Republic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Central/East Europe	271	292	280	292	284	346	350	357	366	376	384	393	405	413
European Union-15 1/	1,073	1,034	1,009	1,008	1,031	929	921	918	890	880	861	859	863	856
Egypt	45	20	5	0	18	0	-1	4	10	15	20	25	31	35
Former Soviet Union 2/	651	412	364	415	460	394	444	442	444	445	493	496	500	550
Russia	470	240	218	278	301	347	395	393	393	393	440	440	444	491
Ukraine	65	71	54	49	60	48	48	49	51	52	54	56	57	59
Other Former Soviet Union	115	101	92	88	99	0	0	0	0	0	0	0	0	0
Hong Kong	193	168	132	131	156	125	122	119	116	114	111	109	107	106
India	100	8	11	109	57	46	47	48	49	50	52	53	54	56
Indonesia	452	466	468	392	444	516	529	540	555	571	583	600	619	634
Japan	381	330	292	272	319	269	265	253	243	235	224	209	196	180
Malaysia	65	83	80	70	75	84	86	87	89	89	91	92	93	94
Mexico	126	151	196	348	205	268	282	294	307	315	331	344	360	360
Other Sub-Saharan Africa	51	35	35	34	39	81	83	89	96	103	106	115	123	131
Pakistan	152	27	61	33	68	15	15	15	15	15	15	15	15	15
Philippines	59	65	76	70	67	78	79	82	83	84	84	85	88	91
South Korea	380	362	328	261	333	282	277	270	266	261	256	252	249	244
Taiwan	243	301	294	283	280	305	300	295	290	287	282	279	277	272
Thailand	314	336	308	218	294	241	240	242	243	246	246	249	252	253
Turkey	236	113	250	327	231	260	271	294	325	344	346	348	345	339
W. Africa (Franc zone)	9	10	3	3	7	10	10	10	10	10	10	10	10	10
Other	514	560	581	650	576	728	744	766	789	814	832	856	884	904
Total	6,612	5,974	6,231	5,799	6,154	6,078	6,180	6,272	6,382	6,490	6,599	6,707	6,835	6,945
Exports-Imports	-436	91	-454	-84	-221	-70	-62	-65	-66	-66	-67	-66	-64	-65

1/ Excludes EU-15 intratrade. 2/ Includes FSU intratrade.



Further losses in these regions are not expected, and Central Asia's production is expected to resume growth, although not as quickly as elsewhere.

World cotton trade is expected to average 1.7-percent annual growth during 1998-2007, reversing much of the decline suffered during the previous 10 years. World cotton trade fell from a peak of 33.4 million bales in 1988 to as low as 25.6 million in 1992, in large part due to declining Russian imports. Import growth is foreseen in Russia and elsewhere after 1997 and, by 2007, world exports are projected at 31.6 million bales.

World trade contracted for two reasons beginning in the late 1980s—the virtual collapse of Russia as a consumer and importer of cotton, and the continued shift of spinning from traditional importers to cotton-producing countries. Neither factor is expected to be as important in the future. Russia's cotton consumption fell more than 80 percent between 1989 and 1996 during the restructuring of Russia's political, economic, and foreign trade systems. Elsewhere, other traditional cotton-importing countries found it less expensive to purchase cotton yarn and fabric for their textile industries as inexpensive textile imports flooded their markets, particularly from Pakistan through the early 1990s. These imports took the place of imported raw cotton.

With Russian and Central and East European consumption beginning to rebound, world cotton trade is likely to grow during the next 10 years. Also, pest and disease control problems have constrained Pakistan's ability to maintain its earlier growth rates in cotton production, cotton consumption, and textile exports. This strengthens prospects for raw cotton demand by some cotton-importing textile exporters who will face less competition. Finally, several countries that were sources of cotton exports during the 1980s have become importers instead. In past years, increasing consumption in Mexico, Brazil, and China in part represented shifts in consumption from importing countries to non-importing producers. As consumption gains have consistently outpaced production in all three countries, they have begun to steadily import, driving world trade higher.

Foreign export growth is expected to recover during 1998-2007, but to remain below the long-term trend. By 2007, foreign exports are expected to total 23.6 million bales. Foreign export growth will be supported

by some resumption of trade relations between countries of the FSU, and by growing import demand from China, Latin America, and Southeast Asia.

U.S. exports are also expected to trend up during 1998-2007, growing to 8 million bales by 2007. The U.S. share of world trade is likely to average a little more than 25 percent, just below its average share during 1990-1997. U.S. exports are expected to rise 1.6 percent annually during 1998-2007, about the same as world trade.

The rapid consumption growth of the 1980s, spurred by prolonged economic expansion and sharp share gains by cotton versus other fibers in some markets, is not expected to resume. In the short term, consumption growth by several cotton importers is likely to be constrained by relatively sluggish economic performance and economic restructuring. In the long term, the liberalization of textile trade under the Uruguay Round Agreement will also constrain cotton imports by the most developed traditional importers, such as the EU and Japan. In contrast, rapid consumption growth is expected in many developing countries and steady growth is expected to continue in major cotton-producing countries. However, the pace of this structural shift will depend on the implementation of the Multi-Fiber Arrangement's phaseout. While it is anticipated that the most significant changes will probably be delayed until the end of the implementation period in 2005, large uncertainties remain about the timing of liberalization and shifts in garment production both to and among developing countries.

### Highlights for Major Importers

**Japan, South Korea, Taiwan, and the European Union.** In these traditional cotton-importing countries, consumption is expected to decline steadily. Strong competition from emerging Asian textile suppliers and comparative production disadvantages will accelerate declines in their raw cotton consumption after 2000.

**China.** China's consumption is expected to grow more rapidly than production during 1998-2007. China's imports have risen in the last few years and China is expected to remain the world's largest single-country importer through 2007. Intransigent bollworm infestations in the North China Plain have hampered the crop in what once was one of China's pre-eminent growing regions. Also, rapid economic growth has increasingly turned land over to nonagricultural pursuits and

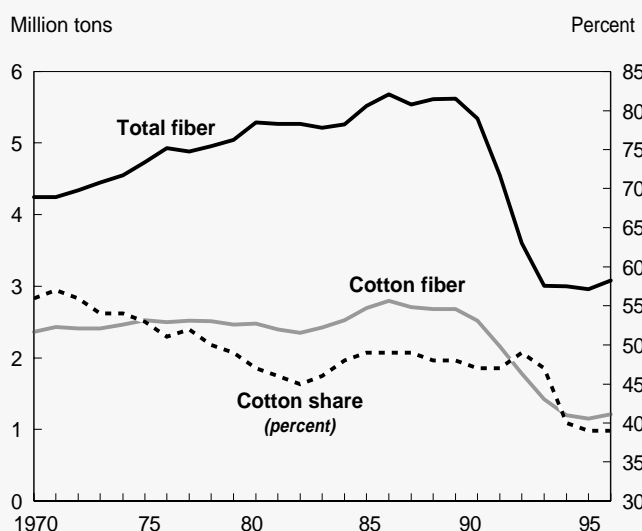
## World Fiber Demand and Cotton Consumption

The long-term outlook for cotton demand is shaped by the total end-use demand for textile fibers, and by the competitiveness of cotton with other fibers, particularly polyester. Total world fiber use grew nearly 3 percent annually during 1961-96, reaching 42.4 million tons by 1996. Based on the baseline income growth rates for developing, industrialized, and formerly centrally planned countries, total world fiber demand is projected to grow about 2.7 percent annually during 1998-2007. Demand for noncotton fibers, including polyester, is projected to grow about 3.4 percent annually, and end use demand for cotton

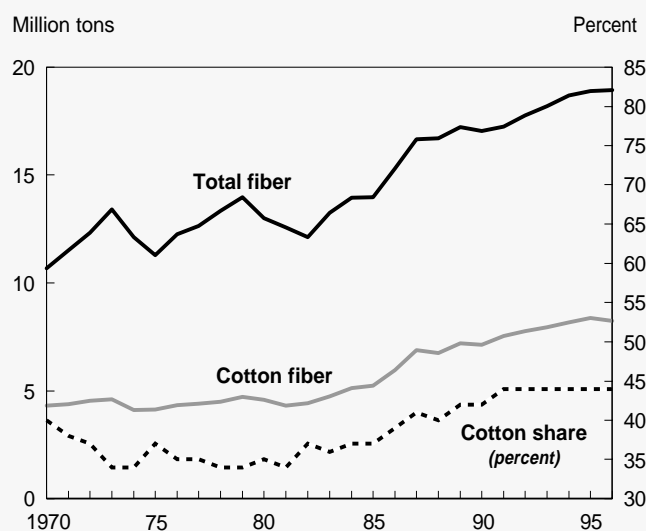
fiber to grow about 1.7 percent annually. With these projections, cotton's share of world fiber use is projected to fall from 45 percent in 1996 to 41 percent in 2007.

According to International Cotton Advisory Committee data, developing countries now consume more textile fiber (final demand) than industrialized countries, making developing region trends key to the demand outlook. Growth in total fiber consumption in developing countries is strongly responsive to income growth. On a per capita basis, end-use fiber

### CEE & FSU: Textile fiber demand



### Industrialized countries: Textile fiber demand



deprived agriculture of investment funds for inputs and improvements. Soaring grain prices and an increasingly affluent population's demand for a greater variety of foods have increased the area of other crops at the expense of cotton.

China's future production and consumption prospects are both subject to considerable uncertainty. Since China is the world's largest importer over much of the projection period, differing assumptions on supply and use developments could significantly influence world trade and U.S. exports. Specific areas of uncertainty include the extent to which current insect problems can

be overcome and the extent to which cotton consumption, which has apparently stagnated since the late 1980's, will respond to sustained economic growth.

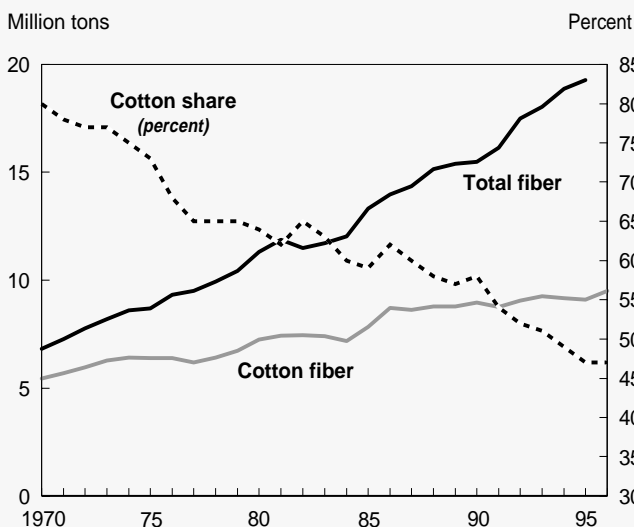
**Indonesia and Thailand.** In these two countries, consumption and import expansion are expected to resume after 1998 as they benefit from comparatively cheap labor, favorable exchange rates, and foreign investment in their textile industries. Indonesia is expected to be the second largest importer in the world through 2007.

**Brazil.** Brazil's production plummeted and imports soared as it reoriented its economy at the beginning of

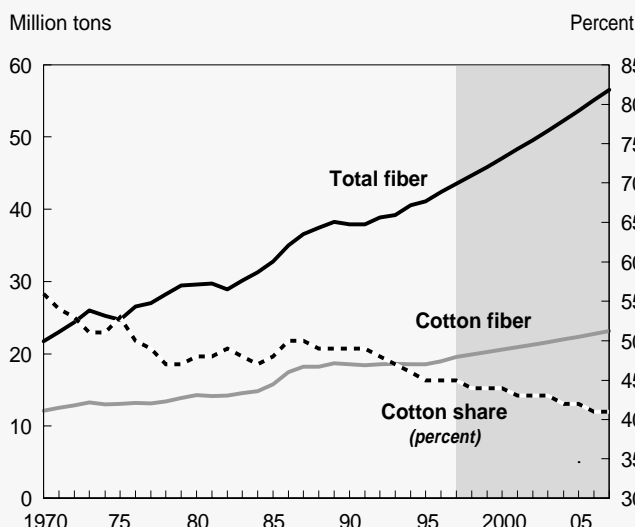
consumption in developing countries (4.4 kgs) remains significantly below both the former centrally planned countries of Central and Eastern Europe and the Former Soviet Union (7.2 kgs) and the industrialized countries (23.2 kgs). However, in developing countries, chemical fiber demand responds more readily to GDP growth than does demand for cotton. This is because lower-income countries have particularly low levels of non-apparel uses of fiber, where cotton plays less of a role. As a result, cotton's share of total fiber use is expected to continue to fall in developing countries, and the outlook for robust economic growth in developing regions is not expected to have as big an impact on global demand for cotton as for some other farm commodities.

The modest economic recovery assumed in the CEE and FSU countries is expected to strengthen global cotton demand during 1998-2007. Fiber consumption in the CEE and FSU region grew very slowly before the sharp contraction in 1989 that was associated with economic restructuring. Slow growth is expected to resume during 1998-2007. Fiber use in the industrialized economies moved erratically upwards during 1961-96, with the cotton share of fiber use rising in the late 1980s, largely due to increased consumer demand for cotton apparel. Future growth in industrialized country demand for cotton will be slowed by the limited additional scope to substitute cotton for other fibers in some countries.

### Developing countries: Textile fiber demand



### World: Textile fiber demand



the 1990's. Brazil is not expected to return to the import-substitution orientation that governed its economic policy before the second half of the 1980's, and cotton import tariffs are likely to remain low. Consumption is expected to continue outpacing production, and Brazil is projected to be one of the largest single-country importers throughout the projection period.

**Central and Eastern Europe and Former Soviet Union.** After years of plummeting cotton consumption, some CEE and FSU countries are beginning to increase consumption again. For most of the region's

traditional importers, cotton consumption and imports are expected to remain well below historical levels throughout 1998-2005. Russia is expected to remain the largest consumer in the region, but will probably account for less than half of all FSU consumption. While traditional consumers in the region remain below historical norms, Central Asian countries, like Uzbekistan, are likely to consume more cotton than in the past.

Demand prospects in the non-producing republics of the FSU and CEE are a major uncertainty in the trade outlook, particularly for Russia. As the economies

recover in Russia and the other lagging republics, it is not clear if their textile sectors will expand at the same rate as the overall economy, grow faster as a result of promotion aimed at achieving quick gains in export earnings, or suffer due to import competition.

### **Highlights for Major Foreign Exporters**

**Australia and West Africa.** Australia and the French-speaking countries of West Africa will continue to channel most of their growing cotton output into the export market throughout the period.

**Pakistan.** Pakistan is expected to maintain some regulation of raw cotton exports, favoring domestic producers of products for export over exports of raw cotton. However, restrictions on raw cotton exports are expected to be less severe than in the past, leading to some growth in raw cotton exports, as well as some strengthening of domestic producer and consumer prices with respect to world prices.

**India.** With much potential for yield gains, India is expected to raise exports moderately. However, as with Pakistan, India's export growth will be limited by strong growth in domestic consumption, and in exports of yarn, cloth, and garments.

**Former Soviet Union.** The Central Asian countries of the FSU will continue exporting cotton to non-FSU

markets at higher levels than during the 1980s. These countries are also expected to increase their exports within the FSU. Central Asia's ability to export, however, will be heavily dependent on yield gains. Past environmental damage is expected to keep some land out of production indefinitely, and efforts to diversify agricultural production will sustain area for grains and other crops at the expense of cotton.

Supply prospects in Central Asia—currently the source of about one-quarter of world cotton exports—are an important uncertainty in the global outlook. Economic and agricultural reform has been slow in the region's major producers, so reform's longrun impacts on yield growth and cross-commodity competition remain conjectural. Central Asia's exports are expected to grow more slowly than exports from the rest of the world, and the region's share of world trade is expected to fall below 20 percent by 2007.

**Brazil, Mexico, Central America, and Turkey.** In some traditional cotton-exporting countries, such as Brazil, Mexico, Central America, and Turkey, cotton exports have been substantially reduced while imports have increased to meet more rapidly expanding consumption needs. These trends will continue, and these countries, with the exception of Turkey, will be expanding their net imports of cotton.

Table 25-- Cotton Supply and Use Projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>World</b>								
1994	32,180	0.58	18,640	6,612	6,176	18,644	3.3	6,162
1995	35,933	0.56	20,254	5,974	6,065	18,932	3.3	7,362
1996	33,871	0.57	19,430	6,231	5,777	19,297	3.3	7,916
1997	33,730	0.59	19,814	5,799	5,715	19,443	3.3	8,347
1994-97 ave.	33,929	0.58	19,535	6,154	5,933	19,079	3.3	7,447
1999	34,115	0.60	20,361	6,078	6,008	20,275	3.3	7,664
2000	34,398	0.61	20,817	6,180	6,118	20,877	3.4	7,667
2001	34,373	0.61	21,023	6,272	6,206	21,169	3.4	7,587
2002	34,389	0.62	21,287	6,382	6,315	21,440	3.4	7,501
2003	34,445	0.63	21,604	6,490	6,423	21,747	3.4	7,425
2004	34,618	0.64	22,028	6,599	6,532	22,113	3.4	7,407
2005	34,746	0.65	22,416	6,707	6,641	22,498	3.4	7,391
2006	34,935	0.65	22,870	6,835	6,771	22,907	3.4	7,418
2007	35,063	0.66	23,259	6,945	6,880	23,313	3.5	7,429
<b>United States</b>								
1994	5,391	0.79	4,281	4	2,047	2,438	9.3	577
1995	6,478	0.60	3,897	89	1,671	2,318	8.7	568
1996	5,208	0.79	4,124	88	1,495	2,422	9.0	865
1997	5,376	0.77	4,132	3	1,589	2,504	9.3	914
1994-97 ave.	5,613	0.73	4,109	46	1,701	2,421	9.1	731
1999	5,198	0.78	4,030	1	1,528	2,539	9.2	858
2000	5,279	0.78	4,140	1	1,549	2,571	9.3	879
2001	5,281	0.79	4,187	1	1,573	2,604	9.3	890
2002	5,281	0.80	4,232	1	1,597	2,637	9.4	889
2003	5,283	0.81	4,279	1	1,620	2,669	9.4	880
2004	5,323	0.82	4,367	1	1,643	2,702	9.4	904
2005	5,321	0.83	4,409	1	1,676	2,736	9.5	902
2006	5,364	0.84	4,500	1	1,710	2,768	9.5	924
2007	5,364	0.85	4,545	1	1,744	2,801	9.6	925
<b>Argentina</b>								
1994	700	0.50	350	8	197	100	2.9	236
1995	960	0.44	420	6	266	100	2.9	295
1996	880	0.37	325	1	290	102	2.9	226
1997	1,000	0.46	457	11	294	106	3.0	293
1994-97 ave.	885	0.44	388	7	262	102	2.9	263
1999	912	0.47	429	11	325	106	2.9	270
2000	896	0.48	432	11	333	107	2.9	273
2001	914	0.49	451	12	345	109	2.9	282
2002	902	0.51	457	12	354	112	3.0	284
2003	906	0.52	470	12	364	112	3.0	290
2004	898	0.53	478	12	372	114	3.0	294
2005	899	0.55	490	12	381	116	3.0	299
2006	907	0.56	507	13	395	119	3.1	305
2007	898	0.57	514	13	404	120	3.1	308
<b>Australia</b>								
1994	222	1.51	335	0	293	40	2.2	94
1995	301	1.42	429	1	319	42	2.3	163
1996	395	1.54	607	0	533	46	2.5	191
1997	430	1.52	653	0	544	46	2.5	254
1994-97 ave.	337	1.50	506	0	422	43	2.4	175
1999	420	1.53	645	0	584	48	2.5	293
2000	418	1.54	645	0	590	49	2.6	299
2001	423	1.55	656	0	601	51	2.6	303
2002	429	1.56	668	0	613	52	2.7	306
2003	434	1.57	680	0	624	53	2.7	310
2004	436	1.57	685	0	627	54	2.8	313
2005	437	1.58	690	0	631	56	2.8	316
2006	441	1.59	701	0	641	57	2.9	318
2007	443	1.60	707	0	646	59	2.9	321

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Brazil</b>								
1994	1,220	0.45	550	351	33	870	5.4	346
1995	1,130	0.35	390	385	22	850	5.2	249
1996	695	0.41	283	529	0	849	5.2	212
1997	920	0.45	414	338	0	740	4.5	223
1994-97 ave.	991	0.41	409	401	14	827	5.1	258
1999	933	0.43	404	477	0	876	5.2	216
2000	931	0.44	408	492	0	895	5.2	221
2001	912	0.44	404	511	0	911	5.3	225
2002	901	0.45	404	534	0	932	5.4	230
2003	892	0.45	405	554	0	953	5.4	236
2004	882	0.46	405	573	0	973	5.5	241
2005	872	0.46	405	597	0	996	5.6	247
2006	866	0.47	407	621	0	1,021	5.7	254
2007	865	0.48	412	641	0	1,046	5.8	261
<b>Canada</b>								
1994	0	0.00	0	58	0	57	2.0	4
1995	0	0.00	0	65	0	64	2.2	5
1996	0	0.00	0	57	0	57	1.9	5
1997	0	0.00	0	65	0	65	2.2	5
1994-97 ave.	0	0.00	0	61	0	61	2.1	5
1999	0	0.00	0	66	0	66	2.2	5
2000	0	0.00	0	67	0	67	2.2	5
2001	0	0.00	0	68	0	68	2.2	5
2002	0	0.00	0	68	0	68	2.2	5
2003	0	0.00	0	69	0	69	2.2	5
2004	0	0.00	0	68	0	68	2.2	5
2005	0	0.00	0	69	0	69	2.2	5
2006	0	0.00	0	70	0	70	2.2	6
2007	0	0.00	0	71	0	71	2.2	6
<b>Central &amp; Eastern Europe</b>								
1994	17	0.41	7	271	16	262	2.2	61
1995	17	0.41	7	292	12	277	2.3	69
1996	17	0.41	7	280	13	268	2.2	72
1997	17	0.41	7	292	12	283	2.4	73
1994-97 ave.	17	0.41	7	284	13	273	2.3	69
1999	16	0.44	7	346	19	329	2.7	101
2000	16	0.44	7	350	20	335	2.8	103
2001	16	0.44	7	357	20	342	2.8	105
2002	16	0.44	7	366	21	350	2.9	108
2003	16	0.45	7	376	21	359	2.9	111
2004	16	0.45	7	384	22	366	3.0	113
2005	16	0.45	7	393	23	375	3.1	116
2006	16	0.45	7	405	23	386	3.2	119
2007	16	0.46	7	413	24	393	3.2	121
<b>China</b>								
1994	5,530	0.78	4,333	884	40	4,572	3.8	1,933
1995	5,422	0.88	4,768	663	5	4,485	3.7	2,874
1996	4,722	0.89	4,202	787	2	4,572	3.7	3,289
1997	4,500	0.94	4,246	479	2	4,681	3.8	3,330
1994-97 ave.	5,044	0.87	4,387	703	12	4,578	3.8	2,857
1999	4,798	0.89	4,283	558	10	4,860	3.9	2,897
2000	4,885	0.89	4,370	555	10	4,969	3.9	2,844
2001	4,737	0.90	4,253	568	10	4,941	3.9	2,714
2002	4,670	0.90	4,217	593	10	4,920	3.8	2,594
2003	4,610	0.91	4,197	611	10	4,907	3.8	2,485
2004	4,608	0.92	4,224	630	10	4,932	3.8	2,397
2005	4,598	0.92	4,245	650	9	4,966	3.8	2,317
2006	4,582	0.93	4,258	671	9	4,998	3.8	2,239
2007	4,557	0.94	4,264	690	9	5,024	3.8	2,160

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Egypt</b>								
1994	305	0.84	255	45	67	248	4.0	47
1995	306	0.77	237	20	19	220	3.5	60
1996	387	0.88	341	5	45	196	3.0	161
1997	360	0.88	316	0	76	218	3.3	177
1994-97 ave.	340	0.85	287	18	52	220	3.4	111
1999	354	1.00	354	0	62	312	4.6	151
2000	355	1.01	357	0	64	314	4.5	130
2001	356	1.01	360	4	65	318	4.5	110
2002	357	1.02	362	10	66	322	4.5	95
2003	357	1.02	365	15	67	325	4.4	82
2004	358	1.03	367	20	69	328	4.4	72
2005	359	1.03	370	25	70	332	4.4	66
2006	359	1.04	372	31	72	335	4.4	61
2007	360	1.04	375	35	73	338	4.3	60
<b>EU-15</b>								
1994	425	1.01	428	1,073	295	1,205	3.2	352
1995	472	1.02	484	1,034	365	1,121	3.0	351
1996	497	0.79	393	1,009	274	1,116	3.0	334
1997	501	0.94	473	1,008	297	1,129	3.0	358
1994-97 ave.	474	0.94	444	1,031	308	1,143	3.0	348
1999	454	1.01	458	929	265	1,145	3.0	367
2000	443	1.02	451	921	260	1,114	2.9	365
2001	439	1.03	454	918	262	1,107	2.9	367
2002	430	1.04	449	890	260	1,085	2.8	361
2003	425	1.06	450	880	261	1,071	2.8	359
2004	417	1.07	447	861	258	1,054	2.7	355
2005	411	1.09	446	859	258	1,049	2.7	355
2006	404	1.10	444	863	258	1,047	2.7	356
2007	398	1.11	443	856	256	1,044	2.7	354
<b>Former Soviet Union</b>								
1994	2,707	0.71	1,911	651	1,947	624	2.1	462
1995	2,573	0.70	1,798	412	1,495	639	2.2	538
1996	2,545	0.56	1,415	364	1,346	589	2.0	382
1997	2,604	0.61	1,592	415	1,275	638	2.2	473
1994-97 ave.	2,607	0.64	1,679	460	1,516	622	2.1	464
1999	2,647	0.64	1,690	394	1,422	670	2.3	362
2000	2,638	0.64	1,693	444	1,450	693	2.3	355
2001	2,635	0.64	1,699	442	1,439	707	2.4	350
2002	2,633	0.65	1,707	444	1,442	713	2.4	345
2003	2,630	0.65	1,716	445	1,456	710	2.4	340
2004	2,626	0.66	1,725	493	1,485	738	2.5	336
2005	2,623	0.66	1,736	496	1,492	745	2.5	332
2006	2,623	0.67	1,751	500	1,492	763	2.5	328
2007	2,621	0.67	1,766	550	1,520	800	2.6	325
<b>Hong Kong</b>								
1994	0	0.00	0	193	48	154	24.9	34
1995	0	0.00	0	168	43	131	20.7	28
1996	0	0.00	0	132	27	113	17.7	20
1997	0	0.00	0	131	22	109	16.7	20
1994-97 ave.	0	0.00	0	156	35	127	20.0	25
1999	0	0.00	0	125	22	103	15.5	23
2000	0	0.00	0	122	22	100	14.8	22
2001	0	0.00	0	119	22	97	14.2	22
2002	0	0.00	0	116	23	93	13.5	21
2003	0	0.00	0	114	23	92	13.1	21
2004	0	0.00	0	111	23	89	12.6	20
2005	0	0.00	0	109	23	86	12.1	19
2006	0	0.00	0	107	24	84	11.7	19
2007	0	0.00	0	106	24	83	11.4	19

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>India</b>								
1994	7,861	0.30	2,355	100	18	2,296	2.5	595
1995	9,063	0.32	2,885	8	145	2,601	2.7	742
1996	9,166	0.33	3,000	11	277	2,830	2.9	646
1997	9,000	0.31	2,787	109	65	2,874	2.9	603
1994-97 ave.	8,773	0.31	2,757	57	126	2,650	2.8	646
1999	8,936	0.33	2,971	46	75	2,917	2.9	630
2000	8,976	0.34	3,096	47	88	3,024	2.9	662
2001	9,026	0.36	3,219	48	98	3,135	3.0	696
2002	9,062	0.37	3,339	49	103	3,250	3.1	732
2003	9,098	0.38	3,463	50	106	3,369	3.1	770
2004	9,122	0.39	3,586	52	107	3,492	3.2	809
2005	9,151	0.41	3,711	53	113	3,611	3.3	848
2006	9,179	0.42	3,834	54	121	3,727	3.3	888
2007	9,209	0.43	3,962	56	126	3,850	3.4	930
<b>Indonesia</b>								
1994	20	0.17	3	452	0	460	2.3	33
1995	21	0.18	4	466	0	465	2.3	27
1996	21	0.18	4	468	0	465	2.2	22
1997	21	0.18	4	392	0	392	1.8	15
1994-97 ave.	21	0.18	4	444	0	446	2.1	24
1999	21	0.18	4	516	0	519	2.4	23
2000	21	0.18	4	529	0	532	2.4	23
2001	21	0.18	4	540	0	543	2.4	24
2002	21	0.18	4	555	0	558	2.4	24
2003	21	0.18	4	571	0	574	2.5	25
2004	21	0.18	4	583	0	586	2.5	26
2005	21	0.18	4	600	0	603	2.5	26
2006	21	0.18	4	619	0	622	2.6	27
2007	21	0.18	4	634	0	637	2.6	28
<b>Japan</b>								
1994	0	0.00	0	381	0	382	3.1	91
1995	0	0.00	0	330	0	333	2.7	89
1996	0	0.00	0	292	0	305	2.4	76
1997	0	0.00	0	272	0	272	2.2	76
1994-97 ave.	0	0.00	0	319	0	323	2.6	83
1999	0	0.00	0	269	0	270	2.1	71
2000	0	0.00	0	265	0	266	2.1	70
2001	0	0.00	0	253	0	256	2.0	67
2002	0	0.00	0	243	0	246	1.9	64
2003	0	0.00	0	235	0	237	1.9	62
2004	0	0.00	0	224	0	227	1.8	59
2005	0	0.00	0	209	0	212	1.7	56
2006	0	0.00	0	196	0	199	1.6	52
2007	0	0.00	0	180	0	184	1.4	48
<b>Malaysia</b>								
1994	0	0.00	0	65	0	64	3.3	8
1995	0	0.00	0	83	0	81	4.0	11
1996	0	0.00	0	80	0	82	4.0	10
1997	0	0.00	0	70	0	71	3.4	9
1994-97 ave.	0	0.00	0	75	0	74	3.7	10
1999	0	0.00	0	84	0	83	3.9	16
2000	0	0.00	0	86	0	85	3.9	16
2001	0	0.00	0	87	0	87	3.9	17
2002	0	0.00	0	89	0	89	3.9	17
2003	0	0.00	0	89	0	89	3.8	17
2004	0	0.00	0	91	0	91	3.8	17
2005	0	0.00	0	92	0	92	3.8	17
2006	0	0.00	0	93	0	93	3.8	18
2007	0	0.00	0	94	0	94	3.8	18

Continued---



Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Mexico</b>								
1994	169	0.70	119	126	40	194	2.1	60
1995	318	0.67	212	151	102	240	2.5	74
1996	246	0.95	235	196	87	338	3.5	73
1997	200	0.98	196	348	54	446	4.5	108
1994-97 ave.	233	0.82	190	205	71	304	3.1	79
1999	152	0.95	145	268	33	377	3.7	92
2000	156	0.96	149	282	34	396	3.8	92
2001	158	0.96	152	294	32	413	3.9	93
2002	159	0.96	153	307	29	429	4.0	94
2003	160	0.96	154	315	26	442	4.0	94
2004	170	0.96	163	331	32	461	4.1	95
2005	181	0.96	174	344	38	479	4.2	95
2006	192	0.96	184	360	45	498	4.3	96
2007	203	0.96	194	360	51	502	4.3	97
<b>Pakistan</b>								
1994	2,650	0.51	1,361	152	32	1,470	10.8	368
1995	3,048	0.59	1,785	27	312	1,568	11.2	296
1996	3,200	0.50	1,589	61	26	1,524	10.6	390
1997	2,900	0.53	1,524	33	65	1,481	10.0	396
1994-97 ave.	2,950	0.53	1,565	68	109	1,511	10.7	363
1999	3,264	0.56	1,816	15	108	1,709	11.0	329
2000	3,319	0.57	1,896	15	126	1,766	11.0	349
2001	3,351	0.59	1,966	15	135	1,827	11.1	368
2002	3,382	0.60	2,039	15	176	1,860	11.0	385
2003	3,425	0.62	2,120	15	195	1,922	11.1	403
2004	3,472	0.64	2,205	15	217	1,983	11.2	423
2005	3,521	0.65	2,292	15	235	2,052	11.3	443
2006	3,568	0.67	2,376	15	248	2,122	11.4	463
2007	3,617	0.68	2,464	15	257	2,200	11.5	485
<b>Philippines</b>								
1994	9	0.34	3	59	0	70	1.0	24
1995	10	0.30	3	64	0	70	0.9	22
1996	2	0.44	1	76	0	76	1.0	23
1997	5	0.30	2	70	0	74	1.0	20
1994-97 ave.	7	0.33	2	67	0	73	1.0	22
1999	5	0.32	2	78	0	80	1.0	23
2000	5	0.33	2	79	0	81	1.0	23
2001	6	0.33	2	82	0	83	1.0	23
2002	6	0.34	2	83	0	85	1.0	23
2003	6	0.35	2	84	0	86	1.0	23
2004	6	0.35	2	84	0	86	1.0	23
2005	7	0.36	2	85	0	88	1.0	24
2006	7	0.37	2	88	0	90	1.0	24
2007	7	0.37	3	91	0	94	1.0	24
<b>Russia</b>								
1994	0	0.00	0	470	145	275	1.9	80
1995	0	0.00	0	240	0	250	1.7	69
1996	0	0.00	0	218	0	240	1.6	47
1997	0	0.00	0	278	0	272	1.8	53
1994-97 ave.	0	0.00	0	302	36	259	1.8	62
1999	0	0.00	0	347	91	256	1.7	47
2000	0	0.00	0	395	129	266	1.8	47
2001	0	0.00	0	393	118	275	1.9	47
2002	0	0.00	0	393	104	289	1.9	47
2003	0	0.00	0	393	91	302	2.0	47
2004	0	0.00	0	440	126	314	2.1	47
2005	0	0.00	0	440	109	331	2.2	47
2006	0	0.00	0	444	95	348	2.3	47
2007	0	0.00	0	491	128	364	2.4	47

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>South Korea</b>								
1994	1	0.22	0	380	3	362	8.0	122
1995	1	0.22	0	362	2	363	8.0	119
1996	1	0.22	0	328	14	321	7.0	112
1997	1	0.22	0	261	2	261	5.6	110
1994-97 ave.	1	0.22	0	333	5	327	7.2	115
1999	1	0.22	0	282	2	282	6.0	107
2000	1	0.22	0	277	2	277	5.8	105
2001	1	0.22	0	270	2	271	5.6	103
2002	1	0.22	0	266	2	266	5.5	101
2003	1	0.22	0	261	2	261	5.3	99
2004	1	0.22	0	256	2	256	5.2	97
2005	1	0.22	0	252	2	252	5.0	96
2006	1	0.22	0	249	2	249	5.0	94
2007	1	0.22	0	244	2	244	4.8	92
<b>Taiwan</b>								
1994	0	0.00	0	243	1	245	11.5	51
1995	0	0.00	0	301	1	304	14.2	46
1996	0	0.00	0	294	1	289	13.3	51
1997	0	0.00	0	283	1	283	13.0	50
1994-97 ave.	0	0.00	0	280	1	280	13.0	50
1999	0	0.00	0	305	0	297	13.4	79
2000	0	0.00	0	300	0	293	13.1	86
2001	0	0.00	0	295	0	290	12.8	91
2002	0	0.00	0	290	0	287	12.6	94
2003	0	0.00	0	287	0	284	12.4	97
2004	0	0.00	0	282	0	281	12.2	98
2005	0	0.00	0	279	0	278	11.9	99
2006	0	0.00	0	277	0	274	11.7	102
2007	0	0.00	0	272	0	270	11.4	104
<b>Thailand</b>								
1994	15	0.41	6	314	0	330	5.7	79
1995	26	0.39	10	336	0	310	5.3	115
1996	14	0.44	6	308	0	300	5.0	119
1997	14	0.47	7	218	0	255	4.2	88
1994-97 ave.	17	0.42	7	294	0	299	5.1	100
1999	15	0.48	7	241	0	249	4.1	111
2000	15	0.48	7	240	0	248	4.0	110
2001	15	0.48	7	242	0	248	4.0	111
2002	15	0.49	7	243	0	250	4.0	111
2003	15	0.49	7	246	0	252	4.0	113
2004	15	0.50	7	246	0	253	4.0	113
2005	15	0.50	7	249	0	255	4.0	114
2006	15	0.50	7	252	0	258	4.0	115
2007	15	0.51	7	253	0	260	4.0	116
<b>Turkey</b>								
1994	582	1.08	628	236	2	850	14.0	162
1995	757	1.13	852	113	58	950	15.4	118
1996	744	1.05	784	250	46	996	15.9	111
1997	700	1.03	719	327	22	1,023	16.0	111
1994-97 ave.	696	1.07	746	231	32	955	15.3	125
1999	763	1.10	838	260	44	1,060	16.1	132
2000	777	1.10	856	271	46	1,096	16.4	116
2001	792	1.10	874	294	49	1,138	16.8	98
2002	808	1.10	892	325	51	1,182	17.2	82
2003	823	1.11	911	344	54	1,223	17.6	60
2004	864	1.11	961	346	56	1,264	17.9	47
2005	907	1.12	1,014	348	58	1,309	18.4	42
2006	952	1.12	1,070	345	62	1,351	18.7	45
2007	1,000	1.13	1,129	339	65	1,393	19.1	54

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Ukraine</b>								
1994	0	0.00	0	65	44	29	0.6	5
1995	0	0.00	0	71	33	27	0.5	16
1996	0	0.00	0	54	27	27	0.5	16
1997	0	0.00	0	49	22	25	0.5	18
1994-97 ave.	0	0.00	0	60	31	27	0.5	14
1999	0	0.00	0	48	20	28	0.6	18
2000	0	0.00	0	48	20	29	0.6	18
2001	0	0.00	0	49	20	29	0.6	18
2002	0	0.00	0	51	20	31	0.6	18
2003	0	0.00	0	52	20	32	0.6	18
2004	0	0.00	0	54	20	34	0.7	18
2005	0	0.00	0	56	20	36	0.7	18
2006	0	0.00	0	57	20	37	0.7	18
2007	0	0.00	0	59	20	39	0.8	18
<b>Vietnam</b>								
1994	17	0.13	2	49	0	54	0.7	5
1995	10	0.11	1	60	0	54	0.7	12
1996	10	0.11	1	57	0	57	0.8	13
1997	7	0.16	1	57	0	58	0.8	13
1994-97 ave.	11	0.12	1	56	0	56	0.7	10
1999	7	0.16	1	61	0	62	0.8	13
2000	7	0.16	1	63	0	64	0.8	14
2001	7	0.16	1	66	0	66	0.8	14
2002	7	0.16	1	69	0	69	0.9	15
2003	7	0.16	1	71	0	71	0.9	15
2004	7	0.16	1	74	0	75	0.9	16
2005	7	0.16	1	77	0	78	0.9	16
2006	7	0.16	1	81	0	81	1.0	17
2007	7	0.16	1	84	0	84	1.0	17
<b>West Africa, Franc-Zone</b>								
1994	1,450	0.40	578	9	584	68	0.8	70
1995	1,613	0.42	685	10	609	65	0.7	91
1996	1,909	0.42	797	3	735	66	0.7	90
1997	2,004	0.45	893	3	772	66	0.7	148
1994-97 ave.	1,744	0.42	738	7	675	66	0.7	100
1999	1,958	0.46	896	10	831	73	0.8	94
2000	1,981	0.46	907	10	841	75	0.7	95
2001	1,999	0.46	924	10	857	76	0.7	96
2002	2,017	0.46	938	10	869	77	0.7	98
2003	2,031	0.47	955	10	885	78	0.7	99
2004	2,045	0.47	964	10	893	79	0.7	101
2005	2,059	0.47	977	10	905	80	0.7	102
2006	2,075	0.48	999	10	926	82	0.7	104
2007	2,090	0.48	1,007	10	933	83	0.7	105
<b>Other Central &amp; Eastern Europe</b>								
1994	17	0.41	7	271	16	262	4.7	61
1995	17	0.41	7	292	12	277	5.0	69
1996	17	0.41	7	280	13	268	4.8	72
1997	17	0.41	7	292	12	283	5.1	73
1994-97 ave.	17	0.41	7	284	13	273	4.9	69
1999	16	0.44	7	346	19	329	5.9	101
2000	16	0.44	7	350	20	335	6.0	103
2001	16	0.44	7	357	20	342	6.1	105
2002	16	0.44	7	366	21	350	6.2	108
2003	16	0.45	7	376	21	359	6.4	111
2004	16	0.45	7	384	22	366	6.5	113
2005	16	0.45	7	393	23	375	6.6	116
2006	16	0.45	7	405	23	386	6.8	119
2007	16	0.46	7	413	24	393	6.9	121

Continued---

Table 25--Cotton Supply and Use Projections--continued

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Other Former Soviet Union</b>								
1994	2,707	0.71	1,911	115	1,759	319	3.4	377
1995	2,573	0.70	1,798	101	1,463	361	3.9	452
1996	2,545	0.56	1,415	92	1,318	322	3.4	319
1997	2,604	0.61	1,592	88	1,253	341	3.6	402
1994-97 ave.	2,607	0.64	1,679	99	1,448	336	3.6	387
1999	2,647	0.64	1,690	0	1,311	386	4.0	296
2000	2,638	0.64	1,693	0	1,301	398	4.1	290
2001	2,635	0.64	1,699	0	1,301	403	4.1	285
2002	2,633	0.65	1,707	0	1,319	393	3.9	280
2003	2,630	0.65	1,716	0	1,345	375	3.7	275
2004	2,626	0.66	1,725	0	1,340	390	3.8	270
2005	2,623	0.66	1,736	0	1,362	378	3.7	266
2006	2,623	0.67	1,751	0	1,377	378	3.6	263
2007	2,621	0.67	1,766	0	1,373	397	3.8	259
<b>Other Sub-Saharan Africa</b>								
1994	1,355	0.24	326	51	142	257	0.6	92
1995	1,711	0.29	490	35	244	268	0.6	102
1996	1,716	0.26	450	35	219	256	0.5	109
1997	1,653	0.26	434	34	183	265	0.5	125
1994-97 ave.	1,609	0.26	425	39	197	261	0.5	107
1999	1,795	0.29	513	81	296	296	0.6	120
2000	1,809	0.29	520	83	300	301	0.6	122
2001	1,819	0.29	523	89	304	306	0.6	124
2002	1,829	0.29	525	96	307	311	0.5	127
2003	1,839	0.29	528	103	312	317	0.5	129
2004	1,865	0.29	533	106	315	322	0.5	131
2005	1,876	0.28	534	115	318	328	0.5	133
2006	1,889	0.28	537	123	324	334	0.5	136
2007	1,901	0.28	538	131	326	340	0.5	138

World beef production is expected to increase about 1.4 percent per year through 2007. China is expected to lead the world in growth in beef demand, and domestic production will likely expand to meet demand. Increased incomes and initially low inventories in the FSU and Brazil will stimulate production. U.S. beef production is still recovering from the impacts of the poor grain crop in 1995/96. As a result of herd liquidation and the relative length of the biological cycle, U.S. beef production will decline through 2000 before increasing at a moderate rate through the end of the forecast period. Production in the EU is expected to decline gradually through the forecast period as beef consumption falls and stocks remain high.

Global per capita consumption of beef is projected to increase gradually as meat demand rises in response to income growth. Although the current economic crisis in Asia could force some household budget reallocation away from beef consumption in the short term, growth is expected to return to its trend over the forecast horizon. However, in some important Pacific Rim markets, such as Japan, there may be limited potential to further expand beef's role in the diet. Other Asian markets, such as China and the Philippines, may have more potential for increasing per capita beef demand.

In Latin America, significant gains in per capita consumption are expected for Mexico and Brazil. Per

capita beef consumption may also rise in Central and Eastern Europe. However, growth will vary from country to country and will depend on the degree and speed with which countries have liberalized their economies. In Russia, only gradual increases in beef demand are expected because of the availability of relatively cheaper pork and poultry. Per capita consumption in the United States is expected to increase slightly in the early 2000s as a result of the cattle cycle, but then decline as relative prices favor consumption of other meats. As a result of continuing concerns over BSE, demand for beef in the EU is expected to be limited.

Increasing import demand in areas like the Pacific Rim, and in countries such as Russia where production has been adjusting to market forces, will mean growth opportunities for exporters. The major exporters will continue to increase production for export, while domestic production in the major importing countries is projected to stagnate, mainly because of the relatively lower cost of imported beef.

Much of the growth in beef and veal import demand is projected in the Pacific Rim countries where, over the projection period, increasing incomes and lower trade barriers will raise consumption beyond that which can be satisfied by their production base. While economic problems associated with the Asian currency crisis may slow Asian imports in the near term, significant

Figure 29

### Beef: Historical and projected real prices

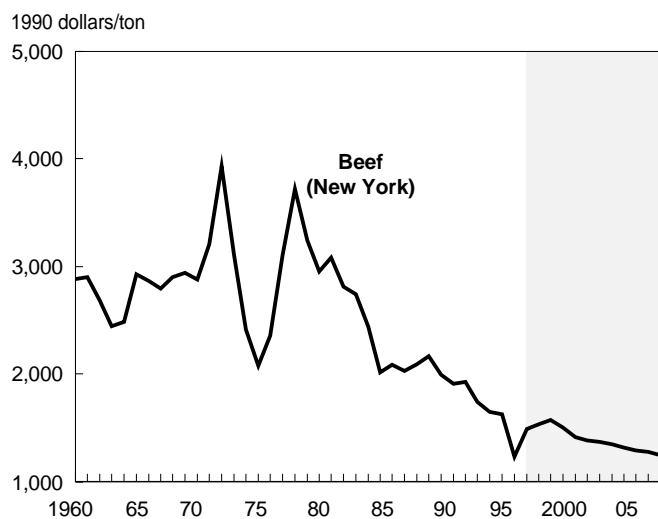


Figure 30

### Beef: Historical and projected price ratios

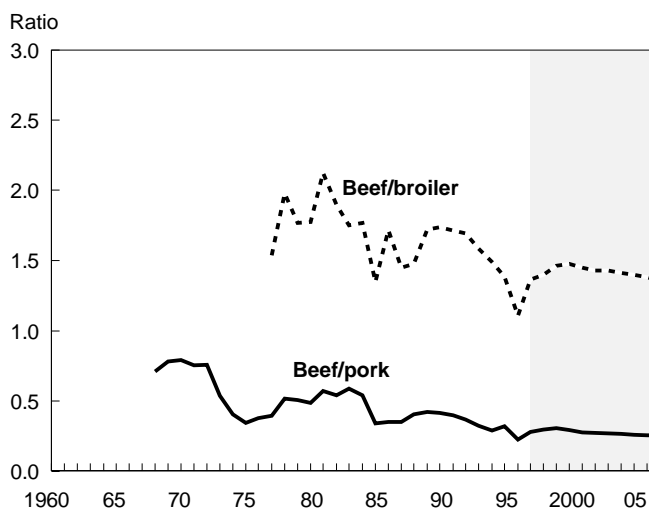


Table 26--Beef trade projections

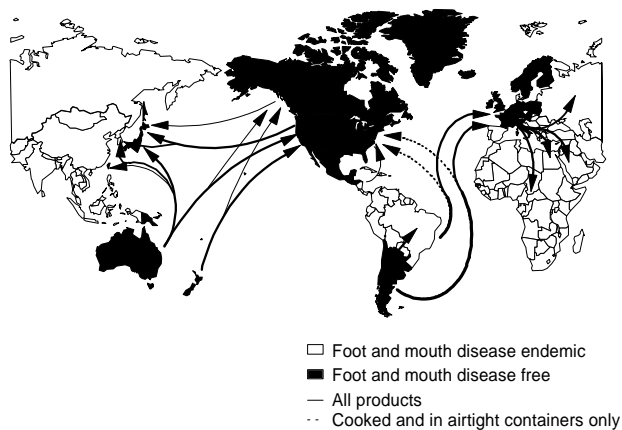
Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
1,000 tons														
<b>Exporters</b>														
United States	731	826	851	897	932	847	1,012	1,036	1,073	1,112	1,144	1,180	1,217	1,254
Argentina	376	520	470	430	450	449	462	483	521	538	560	572	597	623
Australia	1,168	1,092	1,016	1,095	1,075	1,089	1,148	1,154	1,167	1,177	1,179	1,192	1,196	1,203
Brazil	383	291	277	240	240	286	234	234	240	252	262	275	285	296
Canada	220	219	286	360	380	293	382	384	386	390	396	399	399	396
Central/East Europe 1/	99	105	92	86	91	95	80	78	79	85	100	112	125	139
Poland	14	17	27	25	25	22	26	19	15	15	15	15	15	15
China	74	95	79	60	50	72	105	107	108	110	112	114	115	117
European Union-15 2/	1,096	923	913	876	880	938	817	817	817	817	817	817	817	817
Former Soviet Union 3/	441	239	240	109	93	224	328	330	350	366	375	389	397	404
Russia	4	5	5	5	5	5	5	5	5	5	5	5	5	5
Ukraine	168	191	200	76	70	141	178	180	185	191	200	204	207	209
New Zealand	466	504	515	500	480	493	493	501	508	511	513	512	511	510
Total	5,054	4,814	4,739	4,653	4,671	4,786	5,061	5,124	5,249	5,358	5,458	5,562	5,659	5,759
<b>Importers</b>														
United States	1,075	954	940	1,082	1,349	1,080	1,105	1,107	1,106	1,104	1,099	1,094	1,085	1,077
Canada	286	256	237	235	240	251	204	200	196	192	188	184	181	177
China	3	3	3	5	7	4	6	6	7	7	8	9	10	10
European Union-15 2/	426	374	354	335	344	367	350	350	350	350	350	350	350	350
Former Soviet Union 3/	542	614	515	534	542	549	708	753	811	851	853	881	911	941
Russia	541	612	480	500	510	529	531	558	591	613	615	625	639	649
Japan	842	927	899	872	914	891	986	1,011	1,038	1,064	1,084	1,108	1,125	1,140
Mexico	90	42	100	138	172	108	208	220	232	242	251	262	278	295
South Korea	165	194	191	225	255	206	304	306	336	366	396	425	455	485
Total	3,429	3,364	3,239	3,426	3,823	3,456	3,871	3,953	4,076	4,176	4,229	4,313	4,395	4,475

1/ Includes the Czech Republic, Slovakia, Hungary, Poland, and Other Central and Eastern Europe (Albania, Bulgaria, Romania, and the former Yugoslavia). 2/ Excludes EU-15 intratrade.

3/ Includes Russia, Ukraine, and the other republics of the Former Soviet Union; includes FSU intratrade.

Figure 31

### Major beef trade flows



growth is expected in the longer term. Larger imports are expected by Mexico and Russia, where income growth is expected to increase beef demand more rapidly than domestic production can respond. The proximity of Mexico and Russia to sources of relatively low-priced imported product from the United States and Central and Eastern Europe is likely to stimulate increased trade.

Growth in global beef exports is projected to slow as subsidized exports by the EU are reduced under Uruguay Round commitments. The EU, however, is the only major exporter projected to show a decline in beef exports, as the United States, Australia, and Argentina are all projected to continue to increase export volumes through 2007. Australia and the United States will likely vie for the role of leading exporter of beef and veal. U.S. exports are expected to expand, although weakness in Pacific Rim imports may keep export growth more moderate in the near term than previously projected. U.S. exports to Mexico will continue to expand. With the potential to expand into markets formerly restricted by disease regulations, Argentina is projected to gradually expand exports and become the fourth largest exporter of beef. Concurrently, cutbacks in subsidized EU exports and a reduction in beef production in New Zealand will limit the expansion of these countries in the growing world beef market.

#### Highlights for Major Importers

Over the length of the baseline, much of the growth in beef and veal imports is expected to come from the

Pacific Rim countries. The current financial problems are assumed to exert a short-term drag on beef imports, but, over the longer-term, increasing incomes and lower trade barriers will stimulate consumption of imported beef. Increases in imports are also expected in Mexico and Russia, where income growth later in the period is expected to increase demand for beef more rapidly than the production sector can respond. Imports of beef for these markets will be further encouraged by their proximity to the United States and Central and Eastern Europe, where abundant supplies of low-priced imported product are expected. However, as domestic production catches up with demand later in the period, import growth is expected to slow.

**United States.** U.S. beef imports are expected to be stimulated by herd reductions resulting from the drought of 1995/96. High grain prices forced down the price of feeder cattle and encouraged a liquidation of the cow herd. As a result, processing beef will be in short supply as cows are retained for herd rebuilding. Imports will increase through much of the forecast period but will begin declining after 2005. Australia and Canada are expected to have ample supplies of processing-grade beef to supply the United States, but, given its proximity to the United States, Canada is expected to supply an increasing share of U.S. imports. Imports from New Zealand will likely decline slightly as production in that country falls. Imports from Australia and New Zealand both will remain below the TRQ levels established under the WTO. Although Argentina and Uruguay can ship uncooked product to the United States, imports from those countries will be subject to TRQs.

**Japan.** Japan's imports are expected to increase as demand increases and domestic production declines slightly. Japan is committed to reducing its beef tariffs in accordance with the Uruguay Round Agreement, which will raise imports, but it is expected that the rate of per capita consumption growth will slow in the later part of the forecast period. Therefore, imports are projected to increase from 63 to 69 percent of consumption. Despite a general decline in Japan's meat production, government support for calf producers will result in beef production declines of less than 1 percent across the forecast horizon. Australia and the United States are projected to remain far-and-away the dominant suppliers, but Canada is likely to increase its presence.

**Former Soviet Union.** In the FSU, economic restructuring of the livestock sector has led to a sharp decline in beef production. In response to the loss of production subsidies, worsening terms of trade for producers, and declines in consumer incomes, beef production has fallen 65 percent since the late 1980s. As government support for consumption was eliminated, per capita consumption declined to levels more in keeping with countries at a similar economic level. It is expected that beef production will hit bottom in 1998 and increase during the remainder of the baseline. In the medium term, imports will decline, but, as incomes increase later in the period, imports are expected to rise.

**European Union.** Beef in the EU is still being affected by the severe market distortions resulting from the Bovine Spongiform Encephalopathy (BSE) outbreaks and the potential linkage to Creutzfeldt-Jakob Disease (see box, page 156). Although consumption has recovered somewhat from its 1996 lows, the EU remains burdened by high stock levels. It is highly unlikely that EU governments will allow imports to increase beyond their WTO commitments.

**Canada.** Canada's cattle inventory is currently declining as it enters its liquidation phase. Beef production is expected to rise over the next several years. Concurrently, per capita consumption is expected to remain fairly constant, and imports to decline. The United States is the dominant supplier to the Canadian market.

**South Korea.** Although suffering from economic turmoil in the near term, South Korea remains obligated to import increasing amounts of beef under its WTO commitments. Beyond the current crisis, per capita consumption is projected to increase through the baseline and imports will likely rise more rapidly toward the end of the period. Korea must end its quota and markup systems by 2001; thereafter trade will be regulated only by a tariff that is subject to reduction. Better quality grain-fed beef will dominate imports, a situation expected to benefit the United States. Although continuation of some government support for livestock producers is expected, it is uncertain what levels of support the government will be able to sustain following the crisis.

**Mexico.** Mexico's beef imports are expected to continue to expand as the economy expands. Demand for beef is expected to return to pre-crisis levels and

reach about 24 kgs by 2007. Mexican cattle inventories fell dramatically in 1995 from a combination of a severe drought and the economic crisis. In the short term, the need to rebuild herds will limit production growth and result in rapid growth in imports; as production expands beyond 2000, however, the rate of growth in imports is expected to decline.

**Taiwan.** Taiwan is expected to become a significant importer of beef during the baseline. Per capita beef consumption is expected to increase 5 percent per year in response to income growth. Taiwan's consumption needs are almost entirely filled by imports. With little restriction on beef imports, growth in demand will translate into import growth of 6 percent per year.

### Highlights for Major Exporters

Australia and the United States will likely vie for the role of leading exporter of beef and veal by the end of the forecast period. Concurrently, cutbacks in subsidized EU exports and a reduction in beef production in New Zealand will limit the participation of these countries in the growing world beef market. With increased production and the potential to expand into the growing Pacific Rim markets, Argentina is poised to expand exports and become the fourth largest exporter of beef.

**Australia.** Australia has moved into first place in beef exports over the EU, but will come under increasing pressure from the United States for that role. With the return of better weather after several years of drought, herds are being rebuilt, but beef production is expected to increase at a very modest pace. The processing-grade beef markets of North America are expected to play a gradually smaller role relative to the Pacific Rim. However, feed grain sufficiency will remain a problem in Australia and, as long as feed supplies are constrained, Australia's expansion into the higher end of the fed-beef market against the United States and Canada will be limited.

**European Union.** The level of beef stocks is expected to remain a serious problem for EU policy throughout the baseline period. The crisis in consumer confidence as a result of the BSE scare is expected to discourage increases in consumption. Concurrently, beef exports are projected to fall to meet Uruguay Round subsidized export limits. Without lower support prices, it is unlikely that production will fall sufficiently, or that the large beef surpluses could be marketed without



subsidy. The baseline assumes that the EU implements price and other reforms that will align beef production with levels consistent with meeting domestic consumption and the Uruguay Round export limits, while not allowing stocks to exceed historical highs.

The pace of CAP reforms in the EU is a significant uncertainty in the forecasts. The extent of any declines in CAP support to reduce production will have a major impact on feed use, prices, and trade. Failure to reduce production or market stocks could lead to a significant financial burden for member countries.

**United States.** U.S. exports are expected to increase, with the main growth markets being Japan, South Korea, and Mexico. Exports to Canada may be limited by the development of a feeding industry in western Canada and aggressive marketing by western Canadian packers in traditional U.S. markets in eastern Canada. Exports are projected to rise from 8 to 11 percent of U.S. production.

**New Zealand.** New Zealand's beef production is expected to decline marginally as low beef prices and weakening dairy prices encourage producers to look for more profitable alternatives. Although total U.S. beef imports are expected to increase, the U.S. share of New Zealand's exports is expected to decline as New Zealand continues encouraging sales to other buyers in order to reduce its dependence on the U.S. market.

**Brazil.** In Brazil, beef production will expand to meet growing domestic demand. Per capita consumption is expected to increase about 1-2 percent per year, and increases in beef production are expected to keep pace with the growth in consumption. Thus imports are forecast to increase slightly in the near term but to decline toward the end of the period. Due to tariff reductions under MERCOSUR, Argentina will likely be the major supplier to Brazil.

**Argentina.** Beef production is expected to grow slowly, as declines in cattle pasture will be offset by more intensive management of the remaining areas. Animal weights are expected to increase and, coupled with a steady decline in per capita consumption, more beef should be available for export. U.S. acceptance of uncooked meat from Argentina, while limiting Argentina's exports to 20,000 tons, could open the door for development of a presence in the Pacific Rim.

**Canada.** Canadian exports are projected to remain strong throughout the period. The United States will remain Canada's major beef export market, but fed-beef exports into other countries should increase fairly rapidly. Elimination of the Western Canada Grain Transportation Act is expected to encourage increased feeding of livestock in western Canada. Coupled with modern plants in Canada, fed beef could be exported to the United States and markets in the Pacific Rim.

**Central and Eastern Europe.** Some growth in CEE beef exports and production is projected. With improved feeding practices, slaughter weights and output are expected to increase. Per capita beef consumption has declined from the 1990 peak due to a drop in incomes, changes in relative prices, and the end of subsidies. But as income growth returns, per capita consumption is expected to rise. This is expected to limit the growth of exports in a number of countries, most notably Poland.

As in the FSU, the future pace of reform in the CEE countries is uncertain and could affect the outlook for production and trade of beef. It is unclear to what extent governments will maintain support to livestock producers, how fast production will recover, or how quickly these countries will look to expand exports. Trade developments with the EU and Russia will also have a strong impact.

## Impact of the BSE Crisis on the EU Projections

The crisis in the EU over bovine spongiform encephalopathy (BSE, or “mad cow” disease) is projected to have a lingering impact on the EU beef sector, with rippling effects throughout European agricultural markets. Beef consumption in the EU dropped 12 percent in 1996, the initial year of the crisis, and recovered slightly in 1997, but is projected to continue to decline in the longer term.

Consumption has been steadily declining since the late 1980’s, and BSE will accelerate this trend. The projections assume that BSE’s dampening effect will last another 4-5 years and that beef consumption will return to trend around 2002.

A major problem faced by the EU is that production cannot be adjusted quickly enough to address the market imbalance, resulting in a substantial stock buildup over the next few years. The UK’s 6-year cattle eradication program will account for about a 3-percent annual production decline. But this alone will not be enough to bring production in line with consumption. Production will exceed consumption by as much as .5 million tons, and WTO limits on subsidized exports and the ban on British beef exports will inhibit the EU’s ability to export this surplus on world markets. This imbalance results in large intervention stocks in the near term, until beef production more closely reflects the shrunken demand.

The projections are based on the assumption that the EU will adopt additional policies to reduce beef

production. The EU Commission has identified the beef sector as the top priority for policy reform, with a proposed 30-percent reduction in the beef price under discussion. Another factor that will discourage beef production is the ever-declining price of beef during the projection period. Despite lower beef prices relative to pork and poultry, the projection is based on the assumption that consumers will continue to harbor health concerns until BSE is eradicated and the European beef supply is again deemed safe. Even in such a scenario, it is unclear whether beef consumption would fully recover to pre-BSE levels.

Declining beef consumption throughout the EU will be offset by gains in pork and especially poultry consumption, which is forecast to rise 15 percent over the next decade. It is assumed that some consumers will reduce or eliminate meat consumption altogether, rather than substitute other meats. Therefore, where previous baselines plotted a gradual increase in total meat consumption, this year’s results project virtually no change in overall meat consumption during the projection period.

The increased demand for pork and poultry will stimulate domestic production of these grain-intensive meats, driving up demand for feed grains. Demand for corn gluten feed, a major feed input for beef cattle, will be dampened, mirroring the decline in beef consumption.

Table 27--Beef Supply and Use Projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
	1,000 hd	Tons/hd		--- 1,000 tons ---		Total	Per cap	1,000 tons
							Kgs.	
<b>United States</b>								
1994	35,691	313.64	11,194	1,075	731	11,528	44.2	252
1995	37,294	310.64	11,585	954	826	11,726	44.6	239
1996	38,399	301.52	11,578	940	851	11,731	44.2	171
1997	37,591	306.08	11,506	1,119	870	11,745	43.8	181
1998	36,255	311.60	11,297	1,216	950	11,585	42.9	159
1994-98 ave.	37,046	308.59	11,432	1,061	846	11,663	42.8	200
2000	34,480	307.60	10,606	1,105	1,012	10,697	38.9	187
2001	34,787	311.47	10,835	1,107	1,036	10,900	39.3	193
2002	34,997	318.31	11,140	1,106	1,073	11,162	39.9	205
2003	34,879	323.17	11,272	1,104	1,112	11,253	39.9	216
2004	34,540	327.10	11,298	1,099	1,144	11,253	39.6	216
2005	34,363	331.34	11,386	1,094	1,180	11,300	39.5	216
2006	34,337	334.62	11,490	1,085	1,217	11,358	39.4	216
2007	34,270	337.55	11,568	1,077	1,254	11,391	39.2	216
<b>Argentina</b>								
1994	12,400	209.68	2,600	3	376	2,230	65.8	21
1995	12,300	211.38	2,600	6	520	2,080	60.7	27
1996	12,500	206.40	2,580	9	470	2,120	61.1	26
1997	12,200	209.02	2,550	8	430	2,130	60.8	24
1998	11,700	211.97	2,480	10	450	2,050	57.9	14
1994-98 ave.	12,220	209.66	2,562	7	449	2,122	59.2	22
2000	11,768	213.72	2,515	0	462	2,053	56.7	22
2001	11,947	214.53	2,563	0	483	2,079	56.8	23
2002	12,300	215.45	2,650	0	521	2,128	57.6	24
2003	12,380	216.32	2,678	0	538	2,140	57.3	24
2004	12,349	217.10	2,681	0	560	2,121	56.2	24
2005	12,262	217.99	2,673	0	572	2,101	55.1	24
2006	12,344	218.89	2,702	0	597	2,105	54.7	24
2007	12,533	219.74	2,754	0	623	2,130	54.8	24
<b>Australia</b>								
1994	8,332	219.52	1,829	6	1,168	669	37.4	42
1995	7,917	216.88	1,717	5	1,092	650	36.0	22
1996	7,767	210.89	1,638	7	1,016	624	34.2	27
1997	7,961	216.05	1,720	5	1,095	621	33.7	36
1998	7,900	212.66	1,680	5	1,075	625	33.6	21
1994-98 ave.	7,975	215.26	1,717	6	1,089	638	34.0	30
2000	8,155	219.99	1,794	0	1,148	646	34.1	43
2001	8,083	223.43	1,806	0	1,154	652	34.1	43
2002	8,030	227.40	1,826	0	1,167	658	34.2	44
2003	8,053	228.73	1,842	0	1,177	665	34.2	44
2004	8,102	228.22	1,849	0	1,179	670	34.2	44
2005	8,133	229.68	1,868	0	1,192	676	34.2	45
2006	8,156	230.14	1,877	0	1,196	681	34.2	45
2007	8,175	231.07	1,889	0	1,203	686	34.3	46
<b>Brazil</b>								
1994	28,088	204.00	5,730	88	383	5,415	34.1	50
1995	29,803	204.01	6,080	124	291	5,903	36.7	60
1996	31,144	197.47	6,150	144	277	6,057	37.2	20
1997	29,514	204.99	6,050	160	240	5,980	36.4	10
1998	29,184	206.28	6,020	180	240	5,970	35.9	0
1994-98 ave.	29,547	203.27	6,006	139	286	5,865	34.9	28
2000	29,094	208.36	6,062	188	234	6,015	35.5	0
2001	29,595	209.39	6,197	190	234	6,153	36.0	0
2002	29,892	210.42	6,290	190	240	6,240	36.2	0
2003	30,327	211.49	6,414	188	252	6,350	36.5	0
2004	30,855	212.54	6,558	187	262	6,483	36.9	0
2005	31,430	213.62	6,714	185	275	6,624	37.4	0
2006	32,063	214.67	6,883	184	285	6,782	38.0	0
2007	32,715	215.74	7,058	183	296	6,945	38.6	0

Continued---

Table 27--Beef Supply and Use Projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Canada</b>								
1994	3,083	292.90	903	286	220	962	34.1	31
1995	3,148	294.79	928	256	219	971	34.1	25
1996	3,505	284.74	998	237	286	951	33.0	23
1997	3,685	283.85	1,046	235	360	923	31.7	21
1998	3,725	282.68	1,053	240	380	909	30.9	25
1994-98 ave.	3,429	287.41	986	251	293	943	31.7	25
2000	--	--	1,093	204	382	914	30.5	25
2001	--	--	1,099	200	384	915	30.2	25
2002	--	--	1,102	196	386	912	29.9	26
2003	--	--	1,113	192	390	915	29.7	26
2004	--	--	1,124	188	396	916	29.5	26
2005	--	--	1,133	184	399	918	29.3	26
2006	--	--	1,141	181	399	923	29.2	26
2007	--	--	1,150	177	396	931	29.3	26
<b>Central &amp; Eastern Europe</b>								
1994	7,230	206.50	1,493	69	99	1,522	12.6	103
1995	6,441	220.62	1,421	71	105	1,415	11.8	87
1996	6,830	207.17	1,415	57	92	1,398	11.6	81
1997	6,646	213.21	1,417	74	86	1,408	11.7	90
1998	6,418	215.64	1,384	81	91	1,385	11.5	91
1994-98 ave.	6,713	212.42	1,426	70	95	1,426	11.9	90
2000	3,289	439.33	1,445	48	80	1,412	11.7	99
2001	3,484	423.15	1,474	51	78	1,444	12.0	102
2002	3,625	412.43	1,495	53	79	1,467	12.1	105
2003	3,744	406.72	1,523	59	85	1,495	12.3	107
2004	3,857	402.41	1,552	61	100	1,512	12.4	108
2005	3,957	398.45	1,577	68	112	1,532	12.6	109
2006	4,083	393.36	1,606	75	125	1,555	12.7	111
2007	4,231	387.37	1,639	84	139	1,582	12.9	112
<b>China</b>								
1994	24,479	133.58	3,270	3	74	3,199	2.7	0
1995	30,497	136.21	4,154	3	95	4,062	3.4	0
1996	37,015	133.62	4,946	3	79	4,870	4.0	0
1997	40,000	135.00	5,400	5	60	5,345	4.4	0
1998	43,000	134.88	5,800	7	50	5,757	4.7	0
1994-98 ave.	34,998	134.69	4,714	4	72	4,647	3.7	0
2000	38,478	150.71	5,799	6	105	5,700	4.5	0
2001	38,881	156.27	6,076	6	107	5,975	4.7	0
2002	39,214	162.06	6,355	7	108	6,254	4.9	0
2003	39,471	168.05	6,633	7	110	6,530	5.1	0
2004	39,646	174.27	6,909	8	112	6,805	5.3	0
2005	39,754	180.71	7,184	9	114	7,079	5.5	0
2006	39,803	187.40	7,459	10	115	7,354	5.6	0
2007	39,794	194.33	7,733	10	117	7,626	5.8	0
<b>EU-15</b>								
1994	28,706	273.71	7,857	426	1,096	7,603	20.5	521
1995	28,162	279.10	7,860	374	923	7,431	19.9	396
1996	27,991	280.05	7,839	354	913	6,888	18.4	788
1997	27,519	276.61	7,612	335	876	6,855	18.3	1,004
1998	27,258	273.94	7,467	344	880	6,855	18.2	1,080
1994-98 ave.	27,927	276.68	7,727	367	938	7,126	18.8	758
2000	--	--	6,617	350	817	6,228	16.4	1,282
2001	--	--	6,417	350	817	6,060	15.9	1,172
2002	--	--	6,372	350	817	5,950	15.6	1,127
2003	--	--	6,322	350	817	5,916	15.5	1,066
2004	--	--	6,339	350	817	5,923	15.4	1,015
2005	--	--	6,355	350	817	5,938	15.4	965
2006	--	--	6,349	350	817	5,932	15.4	915
2007	--	--	6,377	350	817	5,935	15.4	890

Continued---

Table 27--Beef Supply and Use Projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Former Soviet Union</b>								
1994	34,567	165.74	5,729	542	441	5,842	20.0	521
1995	28,779	155.25	4,468	614	239	4,934	16.9	430
1996	25,421	167.11	4,248	515	240	4,501	15.4	429
1997	22,678	160.90	3,649	534	109	4,103	14.0	382
1998	20,110	165.89	3,336	542	93	3,800	13.0	367
1994-98 ave.	26,311	162.90	4,286	549	224	4,636	15.8	426
2000	--	--	5,057	708	328	5,438	18.4	377
2001	--	--	5,105	753	330	5,528	18.7	377
2002	--	--	5,147	811	350	5,608	18.9	377
2003	--	--	5,239	851	366	5,724	19.2	377
2004	--	--	5,355	853	375	5,833	19.5	377
2005	--	--	5,459	881	389	5,951	19.8	377
2006	--	--	5,563	911	397	6,077	20.1	377
2007	--	--	5,682	941	404	6,219	20.5	377
<b>Japan</b>								
1994	1,537	391.67	602	842	0	1,446	11.6	118
1995	1,506	399.07	601	927	0	1,518	12.1	128
1996	1,389	399.57	555	899	0	1,438	11.5	144
1997	1,345	399.26	537	872	0	1,430	11.4	123
1998	1,320	399.24	527	914	0	1,440	11.4	124
1994-98 ave.	1,419	397.63	564	891	0	1,454	11.5	127
2000	1,314	398.33	523	986	0	1,507	11.9	130
2001	1,332	398.42	531	1,011	0	1,539	12.1	133
2002	1,329	399.25	531	1,038	0	1,566	12.3	135
2003	1,322	400.15	529	1,064	0	1,591	12.5	137
2004	1,317	400.84	528	1,084	0	1,610	12.6	139
2005	1,312	401.75	527	1,108	0	1,633	12.8	141
2006	1,305	402.76	526	1,125	0	1,649	12.9	142
2007	1,297	403.78	524	1,140	0	1,663	13.0	143
<b>Mexico</b>								
1994	8,310	217.81	1,810	90	1	1,899	20.6	0
1995	8,550	216.37	1,850	42	2	1,890	20.1	0
1996	8,180	220.05	1,800	100	2	1,898	19.8	0
1997	8,220	218.98	1,800	138	3	1,935	19.8	0
1998	8,000	222.50	1,780	172	3	1,949	19.6	0
1994-98 ave.	8,252	219.10	1,808	108	2	1,914	18.9	0
2000	8,568	222.81	1,909	208	5	2,113	20.5	0
2001	8,905	224.37	1,998	220	6	2,212	21.1	0
2002	9,244	225.77	2,087	232	6	2,313	21.7	0
2003	9,501	227.24	2,159	242	7	2,394	22.1	0
2004	9,755	228.70	2,231	251	7	2,475	22.5	0
2005	9,998	230.25	2,302	262	7	2,557	22.9	0
2006	10,219	231.73	2,368	278	7	2,639	23.3	0
2007	10,418	233.25	2,430	295	7	2,718	23.6	0
<b>New Zealand</b>								
1994	2,945	192.19	566	3	466	98	28.3	61
1995	3,104	202.96	630	2	504	100	28.5	89
1996	3,858	163.56	631	3	515	128	36.1	80
1997	3,630	168.04	610	2	500	121	33.7	71
1998	3,600	167.50	603	2	480	118	32.5	78
1994-98 ave.	3,427	177.39	608	2	493	113	30.9	76
2000	3,660	164.97	604	0	493	111	30.0	68
2001	3,749	163.83	614	0	501	113	30.3	68
2002	3,833	162.85	624	0	508	116	30.8	68
2003	3,876	162.31	629	0	511	118	31.1	68
2004	3,884	162.87	633	0	513	120	31.2	68
2005	3,887	162.95	633	0	512	121	31.4	68
2006	3,890	163.03	634	0	511	123	31.6	68
2007	3,889	163.28	635	0	510	125	31.8	68

Continued---

Table 27--Beef Supply and Use Projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Poland</b>								
1994	3,249	124.65	405	18	14	409	10.6	10
1995	2,687	148.86	400	8	17	393	10.2	8
1996	2,950	130.85	386	23	27	385	10.0	5
1997	2,750	136.36	375	23	25	372	9.6	6
1998	2,650	135.85	360	20	25	355	9.2	6
1994-98 ave.	2,857	134.82	385	18	22	383	9.8	7
2000	--	--	389	13	26	376	9.6	6
2001	--	--	379	13	19	373	9.5	6
2002	--	--	368	13	15	366	9.3	6
2003	--	--	366	16	15	367	9.3	6
2004	--	--	366	17	15	368	9.3	6
2005	--	--	364	20	15	369	9.3	6
2006	--	--	362	25	15	372	9.3	6
2007	--	--	362	30	15	377	9.4	6
<b>Russia</b>								
1994	19,771	163.88	3,240	541	4	3,791	25.6	389
1995	17,292	158.11	2,734	612	5	3,402	22.9	328
1996	14,715	175.33	2,580	480	5	3,055	20.6	305
1997	13,015	176.72	2,300	500	5	2,795	18.9	287
1998	10,915	183.23	2,000	510	5	2,505	16.9	287
1994-98 ave.	15,142	169.78	2,571	529	5	3,110	21.0	319
2000	--	--	2,467	531	5	2,994	20.2	287
2001	--	--	2,499	558	5	3,052	20.6	287
2002	--	--	2,500	591	5	3,086	20.8	287
2003	--	--	2,538	613	5	3,146	21.2	287
2004	--	--	2,593	615	5	3,203	21.5	287
2005	--	--	2,643	625	5	3,263	21.9	287
2006	--	--	2,695	639	5	3,329	22.3	287
2007	--	--	2,759	649	5	3,403	22.8	287
<b>South Korea</b>								
1994	778	257.07	200	165	0	372	8.3	15
1995	780	274.36	214	194	0	416	9.2	7
1996	850	277.65	236	191	0	429	9.4	5
1997	983	274.67	270	225	0	450	9.8	50
1998	986	278.90	275	255	0	500	10.8	80
1994-98 ave.	875	273.02	239	206	0	433	9.2	31
2000	1,014	277.71	282	304	0	557	11.8	81
2001	1,009	278.30	281	306	0	590	12.3	77
2002	1,002	278.74	279	336	0	619	12.8	74
2003	994	279.68	278	366	0	648	13.3	70
2004	985	280.91	277	396	0	677	13.8	66
2005	975	282.05	275	425	0	704	14.2	62
2006	965	282.90	273	455	0	732	14.7	58
2007	953	284.16	271	485	0	759	15.1	55
<b>Ukraine</b>								
1994	8,841	161.41	1,427	0	168	1,256	24.5	100
1995	8,258	143.62	1,186	0	191	1,020	20.0	75
1996	7,959	149.01	1,186	33	200	994	19.5	100
1997	7,300	124.66	910	32	76	871	17.2	95
1998	6,900	130.43	900	30	70	875	17.3	80
1994-98 ave.	7,852	142.88	1,122	19	141	1,003	19.9	90
2000	--	--	971	0	178	792	15.7	90
2001	--	--	988	0	180	808	16.1	90
2002	--	--	1,016	0	185	831	16.5	90
2003	--	--	1,039	0	191	848	16.9	90
2004	--	--	1,065	0	200	865	17.2	90
2005	--	--	1,090	0	204	886	17.7	90
2006	--	--	1,111	0	207	904	18.0	90
2007	--	--	1,132	0	209	923	18.4	90

# Pork

World pork production is projected to increase at a slower rate than in previous decades as environmental constraints limit expansion in many areas and large supplies of relatively lower cost poultry provide competition. World pork production is expected to increase at an annual rate of nearly 2.4 percent during 1998-2007. Asia and the United States are expected to be the primary growth areas for pork production, with more modest increases projected in Canada, Mexico, the EU-15, the FSU, and Central and Eastern Europe.

Pork consumption is projected to slow in developed economies, including the United States, Canada, the EU-15, and Japan, because of moderate income gains. Slower demand growth in developed countries is expected to be partially offset by stronger demand growth in Asia and Mexico. Consumption in China is expected to increase by more than 3 percent annually, while Korean consumption is projected to grow more than 2 percent annually. Pork demand is also expected to grow moderately in CEE countries and the FSU, aided by modest economic growth, lower inflation, and higher disposable incomes.

World pork trade is projected to continue to expand, driven by rising demand in several of the major pork importers, including Mexico, Japan, and Hong Kong. The United States is projected to assume an expanded export role over the next decade, increasing exports by almost 7 percent per year between 1998 and 2007.

Factors contributing to robust U.S. growth include competitive exchange rates, and an increasingly export-oriented pork production industry. The six largest exporters (the United States, Canada, China, the EU-15, Central and Eastern Europe, and Taiwan) account for over 95 percent of world pork exports.

## Highlights for Major Importers

Changes in world pork imports will be driven primarily by growth in Mexico and Asia, and by reduced imports by the United States. The FSU and Central and Eastern Europe are expected to be significant, somewhat variable, influences in the world market.

**Japan.** Japan's domestic pork supply is projected to fall significantly as domestic producers lose competitiveness against imports, while demand grows more slowly than in the last decade. However, the steady annual demand growth of 2 or more percent per year for one the world's high-priced importing markets, will undoubtedly provide stability and strength to world meat markets. Indeed, imports may represent almost half of total Japanese pork consumption by 2007.

**Former Soviet Union.** In the FSU, an underdeveloped private livestock sector was unable to meet consumer demand in the early 1990s, leading to increased imports. FSU import demand for pork is expected to increase in the early part of the projection period, and

Figure 32

### Pork: Historical and projected real prices

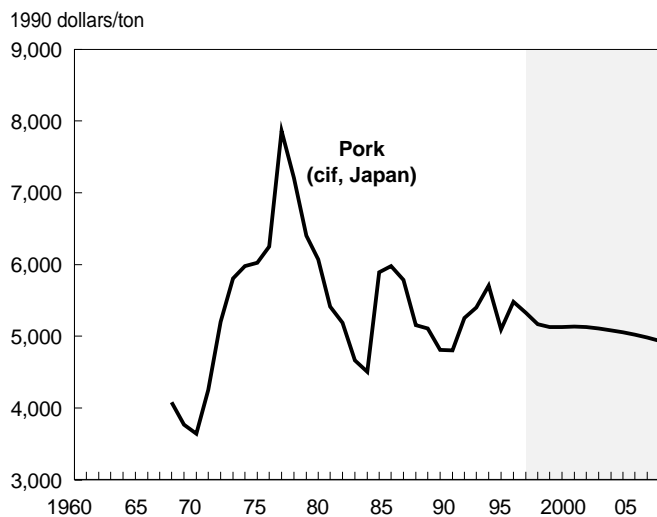


Figure 33

### Pork: Historical and projected price ratios

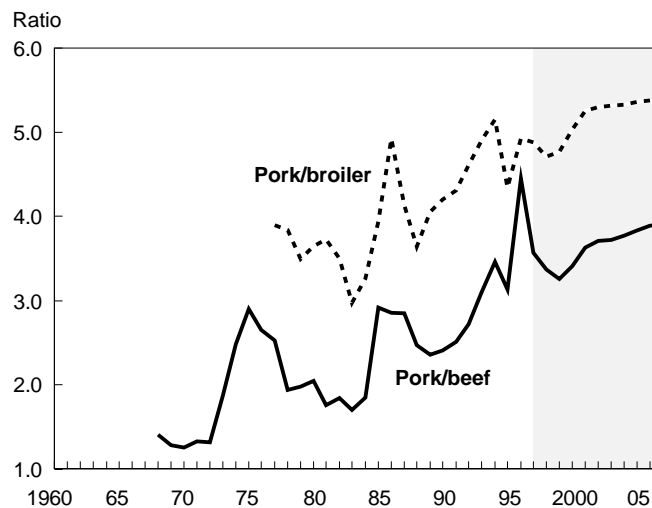


Table 28--Pork trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
1,000 tons														
<b>Exporters</b>														
United States	241	350	431	483	380	377	588	623	660	700	742	786	834	884
Brazil	34	29	56	70	100	58	105	107	109	112	115	118	120	123
Canada	298	356	369	395	430	370	464	477	488	498	509	518	525	530
Central/East Europe 1/	140	188	345	377	332	276	472	474	484	480	477	484	484	480
Hungary	42	54	103	85	60	69	82	89	93	98	106	117	121	124
Poland	27	81	181	160	140	118	219	214	216	206	194	185	177	167
China	181	230	192	150	90	169	247	251	254	258	261	264	268	271
European Union-15 2/	876	741	757	801	794	794	816	824	828	832	836	840	844	848
Taiwan	331	381	388	69	50	244	0	0	0	20	40	60	80	100
Total	2,101	2,275	2,538	2,345	2,176	2,287	2,692	2,756	2,823	2,900	2,980	3,070	3,155	3,236
<b>Importers</b>														
United States	337	301	280	281	283	296	272	268	264	260	256	252	248	244
Canada	27	27	39	50	50	39	47	48	49	49	50	50	51	51
Former Soviet Union 3/	374	492	518	530	535	490	550	533	535	539	553	552	547	540
Russia	324	454	450	470	470	434	515	506	510	515	519	518	514	508
Hong Kong	224	160	145	153	150	166	174	184	195	206	218	230	240	247
Japan	705	829	933	728	822	803	919	944	968	992	1,015	1,038	1,060	1,080
Mexico	80	61	41	48	50	56	84	104	114	122	128	135	140	148
South Korea	26	45	49	106	213	88	231	236	245	255	265	275	283	291
Total	1,773	1,915	2,005	1,896	2,103	1,938	2,277	2,317	2,370	2,423	2,485	2,532	2,569	2,601

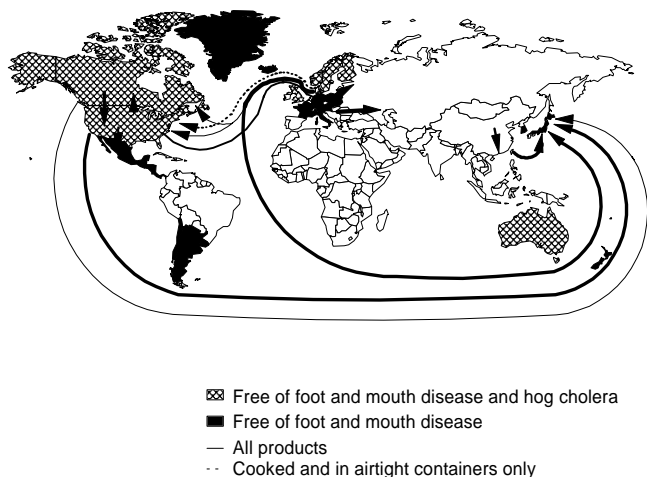
1/ Includes the Czech Republic, Slovakia, Hungary, Poland, and Other Central and Eastern Europe (Albania, Bulgaria, Romania, and the former Yugoslavia). 2/ Excludes EU-15 intratrade.

3/ Includes Russia, Ukraine, and the other republics of the Former Soviet Union; includes FSU intratrade.



Figure 34

### Major pork trade flows



then begin to decrease as the domestic pork and poultry industries begin to recover.

The pace of economic reform in the FSU could significantly alter the rate of income growth and pork demand and is a major uncertainty in the trade outlook. Slower movement toward market liberalization through increased subsidies would hinder recovery of production.

**Hong Kong.** Hong Kong imports nearly half of its pork consumption. Imports will account for a larger share of consumption as production in Hong Kong becomes less competitive with pork from other parts of China, and imports from third countries.

**European Union.** EU-15 pork imports from third-country exporters are expected to grow under the Uruguay Round Agreement, which mandates access to the EU-15 market. The agreement mandates EU-15 imports of 75,000 tons of pork and pork products by 2001. Imports are assumed to remain at that level through the remainder of the projection period.

EU consumption of pork and poultry is projected to increase due to lower market prices, growth in income and population, and the substitution of pork and poultry for beef in the wake of the BSE situation. In northern Europe and the UK, consumer concerns about the environment and animal welfare could further moderate both production and consumption.

**Mexico.** Mexico's pork imports are expected to increase dramatically over the projection period, as the Mexican economy recovers from capital outflows and

peso depreciation in 1994. In the first 4 years of the projection period, year-over-year increases in imports approach 30 percent, on average. Most imports will likely be of U.S. origin.

**South Korea.** South Korea's pork consumption will benefit from income growth and price declines. The liberalization of frozen pork in mid-1997 may not immediately change the level of pork consumption, since domestic prices are not too far from world prices, and the government is likely to discourage early import surges. However, a trade in specific pork cuts is expected to grow slowly, with Korea continuing to export chilled loins to Japan and import cuts such as pork bellies and ribs. Most consumption should be filled by Korean production, which is reportedly becoming more efficient, and which is developing better quality characteristics at the retail level.

Korean consumption is projected to grow faster than production, but the division of market growth in Korea between production and imports is highly uncertain. The Korean industry has not yet been exposed to free import competition, and may respond more effectively to it as assumed in the projections. The sharp depreciation of the won since the macroeconomic assumptions underlying the baseline were completed can be expected to increase the competitiveness of Korean producers and constrain imports.

**Canada.** Canada's pork imports are projected to increase by slightly more than 1 percent per year over the projection period, while per capita consumption trends slowly downward. Production is projected to increase over the period, as the Canadian pork production industry restructures and becomes more export-oriented. Most Canadian imports likely will be of U.S. origin. Competitive pressure from U.S. markets is expected to dampen the increases in Canadian pork prices.

**United States.** U.S. pork imports are expected to decline by more than 1 percent annually between 1998 and 2007. Over the projection period, a restructured domestic pork industry producing low-cost pork products will, increasingly, price imported pork out of the domestic market.

### Highlights for Major Exporters

The United States is expected to show large increases in exports, gaining a significant share of the growth in

## Effects of Foot-and-Mouth Disease Outbreak on Taiwan's Hog Sector

The sudden and devastating outbreak of foot-and-mouth disease (FMD) on Taiwan's hog farms in March 1997 has greatly affected Taiwan's pork sector and global pork trade. Global impacts reflect Taiwan's status as the leading supplier of Japan's pork imports prior to the FMD outbreak. Taiwanese pork production is projected to recover gradually from the FMD shock. For the baseline, it is assumed that Taiwan will withdraw from the international pork market through the end of 2002. Pork exports will then gradually be resumed starting at relatively low levels in 2003.

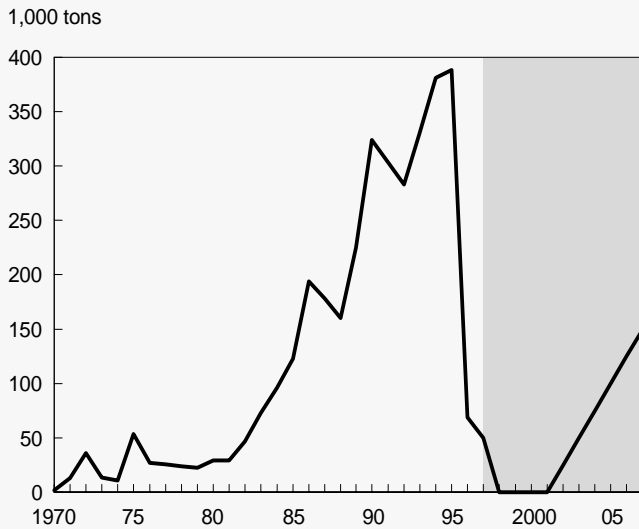
Although the FMD epidemic is now basically under control, the outbreak of FMD has substantially depopulated Taiwan's 10.7 million hogs (as of November 1996). The Taiwan Government's objective is to become "FMD-free with immunization" by June 2000 and "FMD-free without immunization" by June 2001. It is likely that the Taiwanese pork

industry will restructure during these intervening years. Taiwanese pork exports in 2003 and beyond, will be the product of a smaller hog sector, characterized by fewer and larger operations. Longrun Taiwanese pork exports, however, are projected to be much smaller than pre-FMD levels.

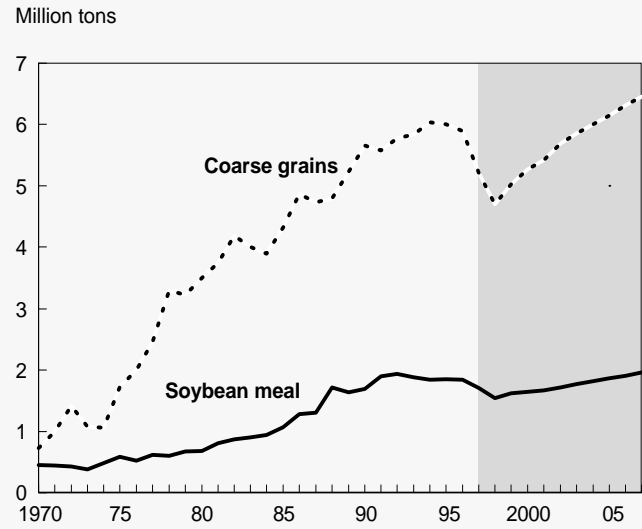
In the baseline projections, the share of Japan's pork import market ceded by Taiwan because of the FMD outbreak is assumed to be divided largely between the United States and Europe, with lower levels of product being accounted for by Canada and Korea.

The sharp drop in Taiwan's hog numbers and pork trade associated with the FMD outbreak will lead to significant near-term declines in demand and imports for corn and soy protein. Feed demand is projected to recover gradually to former levels, as hog numbers rebound and demand for poultry and other feeds expands steadily.

**Taiwan: Baseline pork exports**



**Taiwan: Baseline feed use**



the world market. Taiwan is expected to re-enter the world market gradually, beginning in 2003, following eradication of FMD in the Taiwanese hog herd. Unsubsidized pork exports from the EU-15 are expected to rise over the projection period as production methods improve and feed costs decline.

**United States.** U.S. pork exports are projected to expand by almost 7 percent annually between 1998 and 2007. The primary U.S. growth markets will likely be Mexico and Asia.

**European Union.** EU-15 exports of pork and poultry are determined based on the EU's Uruguay Round commitments for subsidized exports and the estimated capacity for unsubsidized exports. By 2000/01, the EU must limit subsidized exports of pork to 388,000 tons, down about 50 percent from export levels of the early 1990s. This limit is assumed to remain in effect through the end of the baseline period. Efficient production methods and lower feed costs will enable some producers to export unsubsidized pork and poultry, hence the EU is expected to export above the Uruguay Round export subsidy constraint. Animal welfare measures and environmental regulations are expected to limit production of both pork and poultry toward the end of the decade.

**Canada.** Canadian pork exports are expected to increase by more than 2 percent per year, on average, over the projection period. Although the United States will remain Canada's major market for pork exports, the Asian market will likely increase in importance.

**Taiwan.** Taiwan is expected to re-enter the international market gradually, beginning in 2003. The FMD

outbreak is assumed to bring about major structural changes in Taiwan's pork production industry and enforcement of pre-existing waste disposal regulations. The structure of Taiwan's pork production industry that emerges in 2003 will likely be characterized by fewer and larger production operations.

**Central and Eastern Europe.** CEE pork exports are forecast to increase by more than 3 percent per year, over the projection period. Exports will be primarily to the FSU and the EU-15. Progress in economic reform and sustained economic recovery in Eastern Europe will be a major determinant of the region's competitiveness in EU-15 and FSU pork markets. The actual rate of reform and recovery is difficult to project and constitutes a key uncertainty in the trade outlook. Slower movement toward market liberalization, or slower economic recovery, could reduce exports below projections.

**China.** A traditional supplier of pork to Hong Kong and the FSU, China is expected to show export growth of roughly 1 percent per year. This is, however, considerably less than the growth rate for domestic production. Several factors will account for the relatively slow growth in China's exports. First, domestic demand is expected to increase as incomes increase and consumer preferences shift to meat. Second, China is FMD endemic and cannot ship pork products to Japan or Korea. Much of what China exports to markets other than Hong Kong tends to be lower quality/canned product and would not compete well in the major growth markets.

Table 29--Pork Supply and Use Projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
	1,000 hd	Tons/hd		--- 1,000 tons ---		Total	Per cap	1,000 tons
							Kgs.	
<b>United States</b>								
1994	95,696	83.88	8,027	337	241	8,087	31.0	199
1995	96,326	84.06	8,097	301	350	8,067	30.7	180
1996	92,394	83.88	7,750	280	431	7,613	28.7	166
1997	91,246	84.68	7,727	281	483	7,510	28.0	181
1998	99,125	84.65	8,391	279	522	8,157	30.2	172
1994-98 ave.	94,957	84.23	7,998	296	405	7,887	28.9	180
2000	106,678	84.43	9,007	272	588	8,691	31.6	173
2001	105,459	84.72	8,935	268	623	8,579	30.9	174
2002	103,778	85.04	8,825	264	660	8,431	30.2	172
2003	103,382	85.25	8,813	260	700	8,372	29.7	173
2004	103,591	85.40	8,847	256	742	8,361	29.4	173
2005	104,095	85.55	8,905	252	786	8,362	29.2	182
2006	104,659	85.68	8,967	248	834	8,381	29.0	181
2007	105,451	85.78	9,046	244	884	8,406	28.9	182
<b>Brazil</b>								
1994	15,862	81.96	1,300	2	34	1,268	8.0	5
1995	17,455	83.07	1,450	10	29	1,417	8.8	14
1996	21,735	73.61	1,600	1	56	1,554	9.6	5
1997	20,865	73.81	1,540	10	70	1,485	9.0	5
1998	21,400	75.70	1,620	5	100	1,525	9.2	5
1994-98 ave.	19,463	77.17	1,502	6	58	1,450	8.6	7
2000	22,252	75.86	1,688	5	105	1,588	9.4	5
2001	22,881	75.91	1,737	5	107	1,635	9.6	5
2002	23,426	75.98	1,780	5	109	1,676	9.7	6
2003	24,056	76.07	1,830	5	112	1,723	9.9	6
2004	24,717	76.14	1,882	5	115	1,772	10.1	6
2005	25,408	76.24	1,937	5	118	1,824	10.3	6
2006	26,125	76.33	1,994	5	120	1,879	10.5	6
2007	26,876	76.39	2,053	5	123	1,935	10.8	6
<b>Canada</b>								
1994	15,520	79.51	1,234	27	298	959	34.0	15
1995	15,815	80.94	1,280	27	356	951	33.4	15
1996	15,212	81.51	1,240	39	369	912	31.6	13
1997	15,400	81.49	1,255	50	395	911	31.3	12
1998	15,900	81.13	1,290	50	430	907	30.8	15
1994-98 ave.	15,569	80.92	1,260	39	370	928	31.2	14
2000	--	--	1,319	47	464	902	30.1	15
2001	--	--	1,329	48	477	900	29.7	15
2002	--	--	1,339	49	488	900	29.5	15
2003	--	--	1,350	49	498	901	29.3	15
2004	--	--	1,359	50	509	900	29.0	15
2005	--	--	1,366	50	518	898	28.7	15
2006	--	--	1,374	51	525	900	28.5	15
2007	--	--	1,383	51	530	904	28.4	15
<b>Central &amp; Eastern Europe</b>								
1994	55,894	77.23	4,317	180	140	4,329	35.9	421
1995	55,367	77.46	4,289	106	188	4,151	34.5	476
1996	59,008	76.46	4,512	72	345	4,181	34.8	530
1997	55,697	78.32	4,362	91	377	4,101	34.2	503
1998	54,949	78.60	4,319	102	332	4,102	34.2	496
1994-98 ave.	56,183	77.60	4,360	110	276	4,173	34.7	485
2000	--	--	4,570	66	472	4,162	34.6	462
2001	--	--	4,622	66	474	4,213	34.9	462
2002	--	--	4,687	66	484	4,268	35.3	463
2003	--	--	4,745	66	480	4,330	35.7	464
2004	--	--	4,794	66	477	4,382	36.0	464
2005	--	--	4,836	66	484	4,418	36.3	465
2006	--	--	4,891	66	484	4,472	36.6	465
2007	--	--	4,956	66	480	4,541	37.1	466

Continued---

Table 29--Pork Supply and Use Projections--continued

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>China</b>								
1994	421,032	76.12	32,048	0	181	31,867	26.9	0
1995	475,591	76.71	36,484	3	230	36,257	30.3	0
1996	526,510	76.68	40,375	2	192	40,185	33.2	0
1997	560,000	75.89	42,500	5	150	42,355	34.7	0
1998	580,000	75.86	44,000	5	90	43,915	35.6	0
1994-98 ave.	512,627	76.24	39,081	3	169	38,916	31.3	0
2000	584,412	78.91	46,114	7	247	45,874	36.6	0
2001	598,008	79.30	47,423	8	251	47,180	37.4	0
2002	613,128	79.70	48,865	8	254	48,619	38.2	0
2003	634,240	80.10	50,800	9	258	50,551	39.5	0
2004	650,122	80.50	52,333	9	261	52,081	40.4	0
2005	669,093	80.90	54,129	10	264	53,875	41.5	0
2006	688,130	81.30	55,948	11	268	55,691	42.6	0
2007	708,419	81.71	57,885	12	271	57,626	43.8	0
<b>EU-15</b>								
1994	190,871	84.65	16,157	35	876	15,326	41.2	454
1995	186,719	85.20	15,908	36	741	15,256	40.9	401
1996	188,737	86.01	16,233	47	757	15,539	41.5	385
1997	186,418	85.91	16,015	49	801	15,339	40.8	309
1998	186,952	85.69	16,020	47	794	15,365	40.8	217
1994-98 ave.	187,939	85.49	16,067	43	794	15,365	40.6	353
2000	--	--	16,327	21	816	15,529	40.9	233
2001	--	--	16,433	21	824	15,629	41.1	234
2002	--	--	16,566	21	828	15,757	41.3	236
2003	--	--	16,586	21	832	15,775	41.2	237
2004	--	--	16,625	21	836	15,810	41.2	237
2005	--	--	16,649	21	840	15,830	41.1	237
2006	--	--	16,665	21	844	15,842	41.1	238
2007	--	--	16,700	21	848	15,873	41.1	238
<b>Former Soviet Union</b>								
1994	45,290	78.25	3,544	374	70	3,851	13.2	316
1995	39,630	79.28	3,142	492	51	3,805	13.0	281
1996	43,987	71.61	3,150	518	23	3,572	12.2	336
1997	37,279	77.79	2,900	530	31	3,379	11.5	331
1998	32,049	86.12	2,760	535	56	3,239	11.0	281
1994-98 ave.	39,647	78.17	3,099	490	46	3,569	12.1	309
2000	--	--	3,120	550	52	3,619	12.3	184
2001	--	--	3,182	533	56	3,659	12.4	184
2002	--	--	3,229	535	67	3,697	12.4	184
2003	--	--	3,286	539	73	3,752	12.6	184
2004	--	--	3,352	553	88	3,817	12.7	184
2005	--	--	3,415	552	90	3,877	12.9	184
2006	--	--	3,479	547	95	3,931	13.0	184
2007	--	--	3,556	540	98	3,998	13.2	184
<b>Hong Kong</b>								
1994	2,752	72.31	199	224	6	417	68.8	0
1995	2,596	72.03	187	160	9	338	54.6	0
1996	2,538	72.10	183	145	10	318	50.4	0
1997	2,525	72.08	182	153	11	324	50.5	0
1998	2,500	72.00	180	150	11	319	49.0	0
1994-98 ave.	2,582	72.11	186	166	9	343	52.0	0
2000	--	--	173	174	12	335	50.1	0
2001	--	--	169	184	12	341	50.5	0
2002	--	--	166	195	12	349	51.0	0
2003	--	--	163	206	13	356	51.4	0
2004	--	--	160	218	13	365	52.2	0
2005	--	--	156	230	14	372	52.7	0
2006	--	--	153	240	14	379	53.2	0
2007	--	--	150	247	14	383	53.2	0

Continued---

Table 29--Pork Supply and Use Projections--continued

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Hungary</b>								
1994	6,123	80.68	494	40	42	471	46.4	53
1995	4,912	81.43	400	31	54	404	40.1	26
1996	5,931	82.62	490	11	103	395	39.5	29
1997	5,790	82.90	480	5	85	410	41.3	19
1998	5,610	83.78	470	10	60	412	41.7	27
1994-98 ave.	5,673	82.28	467	19	69	418	42.6	31
2000	--	--	507	0	82	425	43.4	27
2001	--	--	518	0	89	429	43.9	27
2002	--	--	526	0	93	433	44.5	27
2003	--	--	535	0	98	437	45.0	27
2004	--	--	549	0	106	443	45.8	27
2005	--	--	564	0	117	447	46.3	27
2006	--	--	573	0	121	452	47.0	27
2007	--	--	581	0	124	457	47.7	27
<b>Japan</b>								
1994	18,649	74.53	1,390	705	0	2,097	16.8	117
1995	17,605	75.09	1,322	829	0	2,093	16.7	175
1996	16,852	75.12	1,266	933	0	2,119	16.9	255
1997	16,875	74.96	1,265	728	0	2,085	16.6	163
1998	16,775	74.81	1,255	822	0	2,085	16.5	155
1994-98 ave.	17,351	74.90	1,300	803	0	2,096	16.6	173
2000	--	--	1,235	919	0	2,153	17.0	120
2001	--	--	1,235	944	0	2,178	17.2	122
2002	--	--	1,229	968	0	2,196	17.3	123
2003	--	--	1,223	992	0	2,214	17.4	124
2004	--	--	1,215	1,015	0	2,229	17.5	124
2005	--	--	1,208	1,038	0	2,245	17.6	125
2006	--	--	1,200	1,060	0	2,259	17.7	126
2007	--	--	1,190	1,080	0	2,269	17.8	127
<b>Mexico</b>								
1994	12,600	71.43	900	80	2	978	10.6	0
1995	13,468	70.83	954	61	4	1,011	10.8	0
1996	12,500	71.60	895	41	13	923	9.6	0
1997	12,770	70.48	900	48	20	928	9.5	0
1998	13,020	71.43	930	50	30	950	9.6	0
1994-98 ave.	12,872	71.15	916	56	14	958	9.5	0
2000	13,101	71.75	940	84	24	1,000	9.7	0
2001	13,133	71.88	944	104	24	1,024	9.8	0
2002	13,286	72.03	957	114	24	1,047	9.8	0
2003	13,472	72.15	972	122	23	1,071	9.9	0
2004	13,668	72.29	988	128	22	1,094	10.0	0
2005	13,849	72.42	1,003	135	22	1,116	10.0	0
2006	14,017	72.55	1,017	140	20	1,137	10.0	0
2007	14,203	72.73	1,033	148	19	1,162	10.1	0
<b>Poland</b>								
1994	19,100	71.10	1,358	99	27	1,430	37.1	30
1995	22,700	69.60	1,580	47	81	1,490	38.6	86
1996	24,180	67.82	1,640	39	181	1,532	39.6	52
1997	21,200	69.81	1,480	30	160	1,372	35.5	30
1998	21,800	69.72	1,520	30	140	1,400	36.1	40
1994-98 ave.	21,796	69.54	1,516	49	118	1,445	37.2	48
2000	--	--	1,540	46	219	1,367	35.0	40
2001	--	--	1,558	46	214	1,390	35.5	40
2002	--	--	1,588	46	216	1,418	36.1	40
2003	--	--	1,609	46	206	1,449	36.7	40
2004	--	--	1,621	46	194	1,473	37.2	40
2005	--	--	1,628	46	185	1,489	37.5	40
2006	--	--	1,645	46	177	1,514	38.0	40
2007	--	--	1,669	46	167	1,548	38.7	40

Continued---

Table 29--Pork Supply and Use Projections--continued

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 hd	Tons/hd		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Russia</b>								
1994	27,757	75.76	2,103	324	1	2,466	16.6	252
1995	24,262	76.87	1,865	454	1	2,570	17.3	224
1996	33,984	50.02	1,700	450	1	2,149	14.5	206
1997	28,679	52.30	1,500	470	1	1,969	13.3	181
1998	24,049	58.21	1,400	470	1	1,869	12.6	131
1994-98 ave.	27,746	61.76	1,714	434	1	2,205	14.9	199
2000	--	--	1,613	515	2	2,126	14.4	131
2001	--	--	1,648	506	2	2,152	14.5	131
2002	--	--	1,666	510	3	2,173	14.7	131
2003	--	--	1,694	515	3	2,206	14.9	131
2004	--	--	1,727	519	4	2,242	15.1	131
2005	--	--	1,759	518	4	2,273	15.3	131
2006	--	--	1,791	514	5	2,300	15.4	131
2007	--	--	1,831	508	5	2,334	15.6	131
<b>South Korea</b>								
1994	9,839	79.89	786	26	11	798	17.9	14
1995	10,178	78.50	799	45	18	830	18.4	10
1996	10,794	80.14	865	49	46	871	19.2	7
1997	10,882	80.13	872	106	70	913	19.9	2
1998	10,600	80.19	850	213	100	960	20.7	5
1994-98 ave.	10,459	79.78	834	88	49	874	18.6	8
2000	--	--	905	231	98	1,037	21.9	8
2001	--	--	932	236	98	1,070	22.4	8
2002	--	--	954	245	97	1,102	22.8	8
2003	--	--	976	255	96	1,135	23.3	8
2004	--	--	998	265	96	1,167	23.8	9
2005	--	--	1,018	275	95	1,198	24.2	9
2006	--	--	1,037	283	94	1,226	24.6	9
2007	--	--	1,057	291	94	1,254	25.0	9
<b>Taiwan</b>								
1994	13,860	86.87	1,204	0	331	873	41.4	0
1995	14,180	86.95	1,233	5	381	857	40.3	0
1996	14,310	88.68	1,269	16	388	897	41.8	0
1997	11,700	86.50	1,012	5	69	858	39.6	90
1998	10,500	88.57	930	5	50	905	41.4	70
1994-98 ave.	12,910	87.50	1,130	6	244	878	39.9	32
2000	--	--	847	15	0	932	42.0	0
2001	--	--	932	15	0	947	42.3	0
2002	--	--	946	15	0	961	42.6	0
2003	--	--	959	15	20	954	41.9	0
2004	--	--	993	15	40	968	42.2	0
2005	--	--	1,026	16	60	982	42.5	0
2006	--	--	1,058	16	80	994	42.7	0
2007	--	--	1,090	16	100	1,006	42.9	0

# Poultry

World consumption of poultry meat is expected to continue to expand throughout the baseline period. Poultry's low cost relative to most other meats, coupled with strong projected economic growth, is expected to increase demand. In particular, rising disposable incomes in developing countries and health concerns in developed countries, strengthen the demand outlook for poultry meat. The United States, as the world's largest poultry exporter, is expected to benefit from growth in world poultry consumption and trade by maintaining its share of world poultry meat exports.

Increases in poultry meat consumption, while well above the rates for beef and pork, are projected to be lower than during the 1980s. Consumption is expected to continue to expand rapidly in countries such as Mexico and China, where current levels of use are relatively low. Per capita poultry consumption remains relatively low in many countries, including Japan, Egypt, the FSU, and Eastern Europe, regardless of stage of development. Poultry consumption in Japan is expected to increase slowly, with gains coming from higher imports as domestic production declines. In Egypt, higher consumption is expected to be driven by stronger economic growth and less restrictive policies toward imports of poultry and feeds. In the FSU and CEE, domestic poultry production is expected to increase gradually during the baseline, but these countries are likely to continue to be large poultry importers for some time. Low incomes continue to

hold down poultry demand in many countries but, as incomes increase, poultry's low price relative to other proteins often make it a first choice to upgrade diets.

The United States is the world's largest poultry meat producer, accounting for nearly one quarter of world production in 1997. Other large producers are the EU, China, and Brazil. Production in these countries is expected to continue to expand as domestic and global demands increase. The greatest gains are likely to occur in China where production is projected to expand sharply in response to growing domestic and export demand and government policies encouraging poultry production.

Global trade in poultry meat is projected to trend upward to more than 9 million tons by 2007. Imports are anticipated to rise in all the largest import markets, including the FSU, China, Japan, Hong Kong, Mexico, Canada, and the Middle East. Most of the growth in world trade is expected to come from expanded shipments of relatively low-priced poultry parts. This will be especially true in emerging markets in middle- and lower-income countries, such as those in the Pacific Rim, the FSU, and CEE. In many cases, the preferred products in these countries are less-preferred and lower-valued products in the United States. As poultry trade expands, many major exporters will attempt to use preferred products in their domestic market and export lower valued products. Exports of further

Figure 35  
**Poultry: Historical and projected real prices**

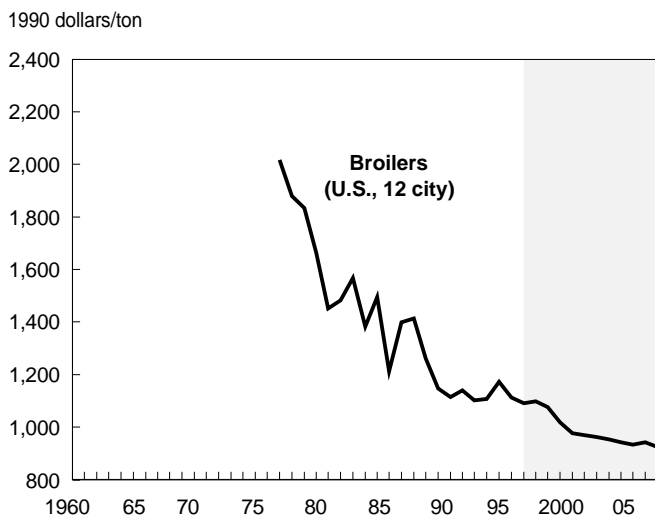


Figure 36  
**Poultry: Historical and projected price ratios**

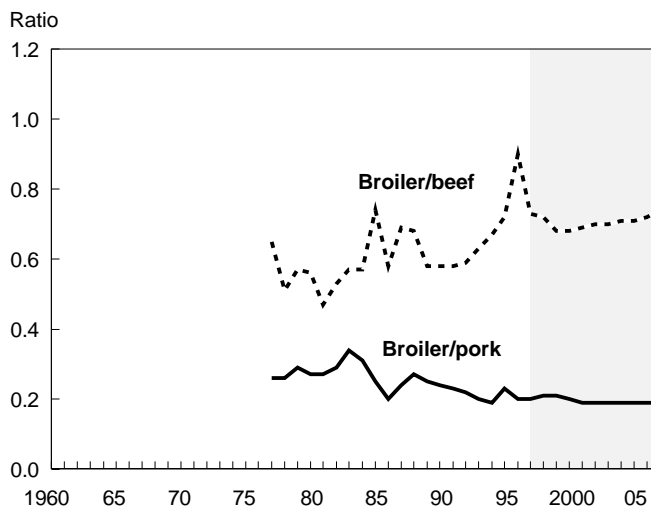




Table 30--Poultry trade projections

Crop year	1994	1995	1996	1997	1994-97 avg.	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1,000 tons													
<b>Exporters</b>														
United States	1,472	1,969	2,324	2,540	2,502	2,161	2,887	2,992	3,103	3,285	3,431	3,580	3,705	3,851
Brazil	495	435	582	670	740	584	789	829	864	903	945	982	1,023	1,065
Central/East Europe 1/	103	136	145	151	163	139	150	159	160	171	188	201	216	230
Hungary	80	108	109	112	114	105	120	124	122	126	133	139	145	150
Poland	14	17	21	25	28	21	20	20	20	20	20	20	20	20
China	252	390	450	550	650	458	682	718	757	800	845	886	930	975
European Union-15 2/	779	885	916	941	963	897	973	982	992	1,002	1,012	1,022	1,032	1,043
Hong Kong	322	489	568	658	766	561	843	915	992	1,076	1,166	1,263	1,368	1,481
Thailand	176	177	169	187	200	182	214	223	221	221	222	221	220	220
Total	3,599	4,481	5,154	5,697	5,984	4,983	6,538	6,818	7,089	7,458	7,809	8,155	8,494	8,865
<b>Importers</b>														
Canada	91	105	115	129	137	115	155	158	160	162	165	167	169	172
Central/East Europe 1/	113	67	56	71	89	79	86	77	90	93	92	97	98	98
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poland	61	34	44	50	55	49	63	61	69	70	69	72	72	70
China	344	625	900	950	1,100	784	1,301	1,402	1,520	1,644	1,777	1,927	2,086	2,257
Egypt	5	4	2	4	20	7	6	7	5	11	13	16	21	25
European Union-15 2/	210	207	284	308	323	266	300	300	300	300	300	300	300	300
Former Soviet Union 3/	536	908	1,227	1,362	1,526	1,112	1,531	1,536	1,578	1,612	1,639	1,676	1,692	1,705
Russia	501	870	1,053	1,206	1,311	988	1,344	1,348	1,383	1,411	1,433	1,461	1,473	1,481
Hong Kong	533	695	799	909	1,035	794	1,189	1,271	1,359	1,454	1,555	1,663	1,778	1,902
Japan	455	549	559	560	562	537	629	650	678	702	725	749	772	794
Mexico	190	163	189	210	218	194	230	232	234	237	241	245	250	251
Saudi Arabia	275	290	288	247	245	269	258	266	272	278	280	278	280	278
South Korea	24	36	57	58	60	47	69	72	76	81	84	89	92	96
Total	2,776	3,649	4,476	4,808	5,315	4,205	5,754	5,971	6,272	6,574	6,871	7,207	7,538	7,878

1/ Includes the Czech Republic, Slovakia, Hungary, Poland, and Other Central and Eastern Europe (Albania, Bulgaria, Romania, and the former Yugoslavia). 2/ Excludes EU-15 intratrade.

3/ Includes Russia, Ukraine, and the other republics of the Former Soviet Union; includes FSU intratrade.

processed products are expected to grow, but will remain a relatively small percentage of total trade. World trade in poultry products is expected to become less restricted over the baseline period. However, some countries, under pressure from domestic producers, are likely to use higher tariffs or other methods to restrict imports and favor local production, often based on imported feeds.

### Highlights for Major Importers

**Former Soviet Union.** The large increase in FSU imports during the last several years has been a chief factor in the expansion of U.S. exports and world poultry trade. Exports to FSU countries now account for over half of all U.S. poultry trade. While exports to the FSU have rapidly expanded, its domestic production has declined even more dramatically, leaving per capita poultry consumption actually lower than when the domestic market was opened to imports. FSU poultry imports are expected to continue to increase over the next several years, but at a declining rate as production in the domestic industry begins to stabilize and then, possibly, expand.

Future FSU imports will be determined by growth in consumer incomes, and by the pace and extent of modernization of the domestic poultry industry. Consumer incomes in the FSU are generally at levels where expansion in meat expenditures will be directed toward low-cost products. As the major exporter of leg meat and other low-cost poultry products, the United States is likely to remain the major supplier to the FSU. Any changes in size or composition of FSU imports will have a major impact on the worldwide poultry industry.

**Hong Kong and China.** Over the baseline period, Hong Kong and China are expected to continue to be major poultry import markets. Most of their imports are expected to be low-priced leg and wing parts and chicken feet. The United States is expected to remain a major supplier of these products.

Growth in China's imports will depend on whether continued economic growth will translate into higher consumer demand for more poultry products, and on the pace of expansion in China's domestic poultry industry. If China continues to actively encourage growth in the domestic industry, China is expected to become a major exporter of value-added processed poultry products. Hong Kong is projected to remain

the largest entry point for poultry imports, but shipments to other ports are likely to increase as facilities are modernized.

**Japan.** Poultry imports by Japan are expected to hinge on trends in domestic production, which is expected to decline slowly as the sector loses competitiveness to low-priced imports, and on Japan's overall economic situation. The market for imported processed poultry products is projected to grow over time. While the United States is expected to remain a major exporter to Japan, it will be faced with competition from the Chinese and Thai poultry industries, which have an advantage in supplying further processed poultry products, such as deboned meat.

**Mexico.** Mexico's imports are expected to continue to expand as its economy strengthens. Mexico has become one of the most important markets for U.S. poultry. While most of the current imports are poultry meat to be used in sausage and prepared products, over time the demand for other imported poultry parts should expand.

**European Union.** EU imports are expected to remain constant near current levels. However, the EU will continue to be a major exporter to the Middle East and is expected to try and build market share in Russia and the Eastern European countries. The EU is expected to concentrate on these markets as subsidies to poultry exports gradually decrease over time.

**Middle East.** Competition for the Middle East poultry market is expected to remain strong with the EU, Brazil, and the United States as the major suppliers. In the past, the Middle East market has imported mostly whole birds. Over time, as incomes rise and preferences change, however, the market is expected to strengthen for imported poultry parts. While still facing strong competition from the EU and Brazil, these changes in consumer preferences are expected to help the U.S. industry expand its share of the Middle East market.

**Canada.** Canada's poultry imports are projected to rise gradually as the the tariff rate quota (TRQ) governing imports under the NAFTA accord is increased annually based on the previous year's production. Canadian imports of poultry products not covered by the TRQ, including further processed products, are also expected to grow and be primarily of U.S. origin.

**South Korea.** The South Korean poultry market is opening to imported poultry products, following liberalization measures begun in July 1997. South Korean imports of both broiler and turkey products are expected to expand slowly as tariffs are gradually reduced. The U.S. poultry industry will face competition in this market from China for imported broiler meat and the EU for imported turkey meat.

### Highlights for Major Exporters

**United States.** U.S. poultry exports are projected to grow about 5.1 percent annually during the baseline, maintaining a dominant share of the expanding global market. U.S. exports are expected to continue to benefit from rapid growth in demand for relatively low-priced poultry parts from middle- and lower income markets. Low U.S. feed costs, coupled with relatively limited U.S. consumer preference for the products preferred in many emerging markets, are expected to keep U.S. poultry exports highly competitive in world markets.

**European Union.** With the limits placed on subsidized exports by the Uruguay Round, subsidized EU poultry exports are projected to decline through 2001, and then remain fixed at the Uruguay Round limit. However, unsubsidized EU poultry exports are expected to remain highly competitive in a number of markets, and growth in the volume of unsubsidized exports is expected to more than offset the decline in subsidized sales. Unsubsidized EU exports are expected to be concentrated in niche markets for specialized products, and in traditional whole bird markets like the Middle East.

**Brazil.** Brazilian exports are expected to continue to grow throughout the baseline. As a major grain and meal producer with relatively low labor costs, Brazil is expected to be a strong exporter to most of the major

world markets. Gains in Brazilian exports will depend, to a large extent, on how much of its production is utilized to meet rising domestic demand.

**China.** Over the baseline, China is expected to be both a major importer and exporter of poultry products. While currently its imports are mostly low-valued poultry parts, the demand for higher priced poultry parts and meat is expected to grow as incomes rise. China is also expected to use its relatively low wage rates and its proximity to Japan and Korea to become a major supplier of high-value poultry products, mostly processed products and deboned meat. The rate at which the Chinese poultry industry expands into export markets will depend on the pace of domestic income and demand growth, the availability and cost of feed, and the relative cost of poultry meat compared with other domestic meats.

**Hong Kong.** Hong Kong is expected to remain a major exporter, actually re-exporter, of poultry products to China. While Hong Kong has been reunified with China, it is still expected to handle a large percentage of all poultry products entering China, especially those going into the rapidly growing southern provinces. However, the rate of expansion in exports to China is expected to depend on changes in Chinese poultry production.

**Thailand.** With its economic crisis and currency devaluation, Thailand's poultry industry is expected to remain a competitive exporter of processed products, mainly deboned chicken parts. With its lowered relative labor rates and decreased domestic demand, Thailand's processors are expected to concentrate on increasing exports, particularly over the next several years. In the longer term, however, stronger internal demand and rising feed and labor costs are expected to limit export growth.

## Overview of the World Poultry Market

Over the 1998-2007 baseline period, worldwide trade in poultry products is expected to expand as trade barriers to imports in many countries are reduced. Often the reductions are made in order to meet the requirements of international trade agreements. Adding to the pressure toward greater international trade is poultry's place as one of the lowest cost meat products. As incomes increase and meat demand rises, poultry is one of the most economical sources of meat proteins. In addition, during times of economic difficulty, consumers may tend to increase purchases of lower priced poultry products, while cutting back on more expensive meats.

Russia, China, Japan, the Middle East, and Mexico continue to be the world's major poultry importers, accounting for approximately 70-75 percent of estimated world poultry meat imports in 1997. These countries are expected to remain large importers throughout the baseline, although China and Mexico are also increasing their domestic production.

While various trade agreements are slowly reducing restrictive tariffs and quotas, new issues continue to threaten growth in world poultry trade. Many of the restrictions based on labeling, handling, and slaughter requirements (kosher or halal slaughter, for example) are likely relatively short-term and are expected to be resolved. However, a number of the trade restrictions are based on sanitary and phyto-sanitary regulations, which are expected to be harder to surmount as they directly conflict with one another or require major changes in production or recordkeeping practices.

As the bulk of world poultry trade has moved from whole birds to parts, producers have had to expand the scope of their marketing worldwide to find markets for all the various parts of the bird. By taking into account differing income levels and the specific consumer preferences of various regions, processors can target parts to specific markets, and sometimes receive a better price than they could domestically. Exports of broiler feet from the United States to China are a prime example. However, the product mix of poultry parts demanded by a specific

country or region will constantly evolve as income levels change and eating habits start to include more prepared food and food service meals.

As markets have opened to increased poultry trade, the United States has benefited by selling chicken breasts in the domestic market and exporting dark meat and less valuable cuts to other markets where they are preferred over breast meat. This strategy has been especially beneficial for the United States, as large markets have developed for leg meat in Russia and wings, wing tips, and paws in Hong Kong and China. However, this strategy could be adopted in reverse by other producing countries. In this case the processors would sell the cheaper cuts and parts on the domestic market and more expensive cuts to higher income countries. China has been adopting this strategy and been exporting deboned meat and other value-added products to the Japanese and Korean markets.

During the baseline, most of the world's largest poultry exporters (the United States, Brazil, China, and Thailand) are expected to continue to expand their output slowly in response to liberalized trade and a growing demand for relatively low-cost poultry meat. The key to expansion for these countries will be to maintain their status as low-cost producers, while simultaneously developing worldwide markets for the wide array of products that they produce.

### Major poultry trade flows



Table 31--Poultry Supply and Use Projections

	Production	Imports	Exports	Consumption		Ending stocks 1,000 tons
				Total	Per cap Kgs.	
		--- 1,000 tons ---				
<b>United States</b>						
1994	13,206	0	1,472	11,683	44.8	330
1995	13,786	0	1,969	11,766	44.7	381
1996	14,522	2	2,324	12,139	45.7	442
1997	15,021	2	2,519	12,488	46.6	458
1998	15,943	2	2,591	13,322	49.3	490
1994-98 ave.	14,496	1	2,175	12,280	45.0	420
2000	17,423	0	2,887	14,514	52.8	535
2001	18,075	0	2,992	15,060	54.3	558
2002	18,651	0	3,103	15,525	55.5	580
2003	19,190	0	3,285	15,882	56.4	603
2004	19,723	0	3,431	16,269	57.3	626
2005	20,260	0	3,580	16,658	58.2	648
2006	20,797	0	3,705	17,069	59.1	671
2007	21,348	0	3,851	17,483	60.1	685
<b>Brazil</b>						
1994	3,491	4	495	3,000	18.9	0
1995	4,140	0	435	3,705	23.0	0
1996	4,144	0	582	3,562	21.9	0
1997	4,441	0	670	3,771	22.9	0
1998	4,710	0	740	3,970	23.9	0
1994-98 ave.	4,185	1	584	3,602	21.4	0
2000	4,977	0	789	4,188	24.7	0
2001	5,255	0	829	4,426	25.9	0
2002	5,521	0	864	4,657	27.0	0
2003	5,721	0	903	4,818	27.7	0
2004	5,924	0	945	4,979	28.4	0
2005	6,125	0	982	5,143	29.1	0
2006	6,342	0	1,023	5,319	29.8	0
2007	6,558	0	1,065	5,493	30.6	0
<b>Canada</b>						
1994	854	91	36	903	32.0	31
1995	861	105	67	902	31.6	28
1996	893	115	75	922	32.0	39
1997	914	129	74	973	33.4	35
1998	938	137	80	997	33.9	33
1994-98 ave.	892	115	66	939	31.6	33
2000	981	155	102	1,033	34.4	34
2001	995	158	103	1,050	34.7	34
2002	1,010	160	105	1,065	34.9	35
2003	1,024	162	106	1,079	35.1	35
2004	1,038	165	108	1,095	35.2	36
2005	1,052	167	110	1,109	35.4	36
2006	1,066	169	111	1,124	35.6	37
2007	1,081	172	113	1,140	35.8	37
<b>Central &amp; Eastern Europe</b>						
1994	1,369	113	103	1,371	11.4	66
1995	1,396	67	136	1,307	10.9	88
1996	1,465	56	145	1,370	11.4	93
1997	1,469	71	151	1,394	11.6	87
1998	1,477	88	162	1,414	11.8	76
1994-98 ave.	1,435	79	139	1,371	11.4	82
2000	1,574	86	150	1,509	12.5	84
2001	1,590	77	159	1,507	12.5	85
2002	1,593	90	160	1,522	12.6	85
2003	1,617	93	171	1,538	12.7	86
2004	1,648	92	188	1,551	12.8	86
2005	1,675	97	201	1,570	12.9	87
2006	1,703	98	216	1,584	13.0	87
2007	1,733	98	230	1,601	13.1	88

Continued---

Table 31--Poultry Supply and Use Projections--continued

	Production	Imports	Exports	Consumption		Ending stocks 1,000 tons
				Total	Per cap Kgs.	
		--- 1,000 tons ---				
<b>China</b>						
1994	7,550	344	252	7,642	6.4	0
1995	9,347	625	390	9,582	8.0	0
1996	10,746	900	450	11,196	9.3	0
1997	12,500	950	550	12,900	10.6	0
1998	14,000	1,100	650	14,450	11.7	0
1994-98 ave.	10,829	784	458	11,154	9.0	0
2000	16,259	1,301	682	16,877	13.5	0
2001	17,875	1,402	718	18,559	14.7	0
2002	19,263	1,520	757	20,026	15.7	0
2003	20,466	1,644	800	21,310	16.6	0
2004	21,466	1,777	845	22,398	17.4	0
2005	22,715	1,927	886	23,756	18.3	0
2006	23,894	2,086	930	25,050	19.2	0
2007	24,886	2,257	975	26,168	19.9	0
<b>Egypt</b>						
1994	345	5	0	350	5.7	0
1995	360	4	0	364	5.8	0
1996	380	2	0	382	6.0	0
1997	385	4	0	389	6.0	0
1998	390	20	0	410	6.2	0
1994-98 ave.	372	7	0	379	5.6	0
2000	445	6	0	451	6.6	0
2001	471	7	0	478	6.9	0
2002	503	5	0	508	7.2	0
2003	524	11	0	535	7.4	0
2004	543	13	0	556	7.6	0
2005	562	16	0	578	7.8	0
2006	581	21	0	602	7.9	0
2007	602	25	0	627	8.1	0
<b>EU-15</b>						
1994	7,543	210	779	6,901	18.6	248
1995	7,850	207	885	7,190	19.3	225
1996	8,190	284	916	7,628	20.4	155
1997	8,452	308	941	7,820	20.8	154
1998	8,433	323	963	7,833	20.8	114
1994-98 ave.	8,094	266	897	7,474	19.8	179
2000	8,737	300	973	8,065	21.3	242
2001	8,879	300	982	8,193	21.5	246
2002	9,032	300	992	8,336	21.8	250
2003	9,132	300	1,002	8,427	22.0	253
2004	9,213	300	1,012	8,499	22.1	255
2005	9,274	300	1,022	8,551	22.2	257
2006	9,338	300	1,032	8,604	22.3	258
2007	9,424	300	1,043	8,679	22.5	260
<b>Former Soviet Union</b>						
1994	1,651	536	17	2,201	7.5	147
1995	1,348	908	20	2,264	7.7	119
1996	1,204	1,227	90	2,262	7.7	189
1997	1,139	1,362	65	2,412	8.2	207
1998	1,120	1,526	50	2,583	8.8	220
1994-98 ave.	1,292	1,112	48	2,344	8.0	176
2000	1,256	1,531	30	2,757	9.3	88
2001	1,281	1,536	30	2,787	9.4	88
2002	1,296	1,578	30	2,844	9.6	88
2003	1,328	1,612	30	2,910	9.8	88
2004	1,368	1,639	30	2,977	9.9	88
2005	1,405	1,676	30	3,051	10.1	88
2006	1,445	1,692	30	3,107	10.3	88
2007	1,491	1,705	30	3,166	10.4	88

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Table 31--Poultry Supply and Use Projections--continued

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Hong Kong</b>						
1994	84	533	322	293	48.4	10
1995	94	695	489	300	48.5	0
1996	90	799	568	321	50.9	0
1997	88	909	658	339	52.9	0
1998	86	1,035	766	355	54.5	0
1994-98 ave.	88	794	561	322	48.7	2
2000	78	1,189	843	423	63.3	0
2001	74	1,271	915	430	63.5	0
2002	70	1,359	992	437	63.9	0
2003	67	1,454	1,076	445	64.3	0
2004	63	1,555	1,166	452	64.7	0
2005	60	1,663	1,263	460	65.2	0
2006	57	1,778	1,368	467	65.5	0
2007	54	1,902	1,481	475	66.0	0
<b>Hungary</b>						
1994	320	0	80	240	23.7	20
1995	368	0	108	245	24.3	35
1996	365	0	109	256	25.6	35
1997	370	0	112	263	26.5	30
1998	380	0	114	271	27.4	25
1994-98 ave.	361	0	105	255	25.9	29
2000	384	0	120	264	27.0	25
2001	398	0	124	274	28.0	25
2002	404	0	122	282	29.0	25
2003	413	0	126	287	29.6	25
2004	424	0	133	291	30.1	25
2005	435	0	139	296	30.7	25
2006	447	0	145	302	31.4	25
2007	458	0	150	308	32.1	25
<b>Japan</b>						
1994	1,258	455	3	1,725	13.8	81
1995	1,282	549	3	1,798	14.4	111
1996	1,249	559	3	1,796	14.3	120
1997	1,235	560	3	1,790	14.2	122
1998	1,225	562	0	1,795	14.2	114
1994-98 ave.	1,250	537	2	1,781	14.1	110
2000	1,222	629	0	1,849	14.6	117
2001	1,236	650	0	1,884	14.8	120
2002	1,237	678	0	1,913	15.0	122
2003	1,230	702	0	1,931	15.2	123
2004	1,223	725	0	1,947	15.3	124
2005	1,212	749	0	1,960	15.4	125
2006	1,204	772	0	1,975	15.5	125
2007	1,195	794	0	1,988	15.6	126
<b>Mexico</b>						
1994	1,483	190	0	1,673	18.1	0
1995	1,554	163	0	1,717	18.3	0
1996	1,600	189	0	1,789	18.7	0
1997	1,680	210	0	1,890	19.4	0
1998	1,750	218	0	1,968	19.8	0
1994-98 ave.	1,613	194	0	1,807	17.9	0
2000	2,069	230	0	2,299	22.3	0
2001	2,176	232	0	2,408	23.0	0
2002	2,282	234	0	2,516	23.6	0
2003	2,376	237	0	2,613	24.2	0
2004	2,475	241	0	2,716	24.7	0
2005	2,574	245	0	2,819	25.2	0
2006	2,675	250	0	2,925	25.8	0
2007	2,780	251	0	3,031	26.3	0

Continued---

Table 31--Poultry Supply and Use Projections--continued

	Production	Imports	Exports	Consumption		Ending stocks 1,000 tons
				Total	Per cap Kgs.	
		---	1,000 tons	---		
<b>Poland</b>						
1994	345	61	14	392	10.2	5
1995	367	34	17	380	9.8	9
1996	410	44	21	431	11.2	11
1997	435	50	25	456	11.8	15
1998	450	55	28	477	12.3	15
1994-98 ave.	401	49	21	427	11.0	11
2000	466	63	20	508	13.0	15
2001	443	61	20	484	12.4	15
2002	428	69	20	477	12.1	15
2003	427	70	20	477	12.1	15
2004	427	69	20	476	12.0	15
2005	427	72	20	479	12.0	15
2006	426	72	20	478	12.0	15
2007	428	70	20	478	12.0	15
<b>Russia</b>						
1994	1,068	501	6	1,588	10.7	128
1995	859	870	5	1,749	11.8	103
1996	720	1,053	18	1,755	11.8	94
1997	705	1,206	12	1,899	12.8	88
1998	705	1,311	15	2,001	13.5	88
1994-98 ave.	811	988	11	1,798	12.2	100
2000	808	1,344	0	2,152	14.5	88
2001	820	1,348	0	2,168	14.6	88
2002	825	1,383	0	2,208	14.9	88
2003	845	1,411	0	2,256	15.2	88
2004	871	1,433	0	2,304	15.5	88
2005	897	1,461	0	2,358	15.8	88
2006	923	1,473	0	2,396	16.1	88
2007	955	1,481	0	2,436	16.3	88
<b>Saudi Arabia</b>						
1994	286	275	8	558	31.4	45
1995	309	290	17	582	31.9	45
1996	340	288	25	603	32.0	45
1997	438	247	35	645	33.1	50
1998	440	245	35	650	32.2	50
1994-98 ave.	363	269	24	608	29.0	47
2000	487	258	38	685	31.6	48
2001	517	266	41	724	32.4	66
2002	542	272	44	760	32.9	76
2003	569	278	47	805	33.8	70
2004	598	280	50	846	34.5	52
2005	626	278	54	876	34.7	26
2006	656	280	57	886	34.0	19
2007	690	278	61	912	34.0	14
<b>South Korea</b>						
1994	378	24	0	398	8.9	4
1995	415	36	0	452	10.0	3
1996	459	57	0	511	11.2	8
1997	473	58	0	534	11.6	5
1998	492	60	0	552	11.9	5
1994-98 ave.	443	47	0	489	10.4	5
2000	539	69	0	608	12.8	6
2001	564	72	0	635	13.3	6
2002	586	76	0	662	13.7	6
2003	605	81	0	686	14.1	6
2004	625	84	0	709	14.4	7
2005	642	89	0	730	14.8	7
2006	660	92	0	752	15.1	7
2007	678	96	0	774	15.4	7

Continued---



Table 31--Poultry Supply and Use Projections--continued

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
		--- 1,000 tons ---			Kgs.	1,000 tons
<b>Thailand</b>						
1994	740	0	176	564	9.8	0
1995	825	0	177	638	11.0	10
1996	890	0	169	706	12.0	25
1997	975	0	187	778	13.1	35
1998	1,020	0	200	820	13.7	35
1994-98 ave.	890	0	182	701	11.6	21
2000	990	0	214	776	12.7	35
2001	1,018	0	223	795	12.9	35
2002	1,034	0	221	813	13.1	35
2003	1,046	0	221	825	13.1	35
2004	1,059	0	222	837	13.2	35
2005	1,070	0	221	849	13.3	35
2006	1,082	0	220	862	13.4	35
2007	1,095	0	220	875	13.5	35

## Appendix: Definition of Geographic Regions

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The list below indicates the countries included in the geographic regions used in the tables and text in this report. Inclusion of supply, use, and trade data for a particular country and commodity is dependent on availability of those data in the USDA database. USDA supply and use data are not available for all commodities, or for all countries listed below.

Within the tables included in the report, data are frequently aggregated into regions defined, for example, as “Other Asia” or “Other North Africa and Middle East.” These aggregates include data for all countries in that region (subject to data availability), except those broken out separately in that table. For example, “Other Asia” will include all countries listed below for the Asia region, less any Asia region countries shown individually in the table. Aggregates listed simply as “Other” include available data for all countries in the world not already accounted for by the individual countries and regions shown in the table.

### Europe

*European Union-15 (EU-15):* Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom

*Former Soviet Union (FSU):* Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and the Baltics (Estonia, Latvia, and Lithuania)

*Central and Eastern Europe (CEE):* Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia, Former Yugoslavia (incl. Bosnia, Croatia, Macedonia, Montenegro, Serbia, Slovenia)

### Western Hemisphere

*Central America and Caribbean:* Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guadeloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Netherlands Antilles, Nicaragua, Panama, Puerto Rico, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Virgin Islands

*South America:* Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela

*Latin America:* South America, Central America and Caribbean

### Africa and Middle East

*Africa and Middle East:* North Africa and Middle East, Sub-Saharan Africa, South Africa

*North Africa and Middle East:* Algeria, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen

*Sub-Saharan Africa:* Angola, Botswana, Burundi, Cape Verde, Comoros, Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritania, Mauritius, Mozambique, Nigeria, Reunion, Rwanda, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zaire, Zambia, Zimbabwe

*West Africa 10:* Benin, Burkina, Cameroon, Central African Republic, Chad, Cote d’Ivoire, Mali, Niger, Senegal, Togo

### Asia and Oceania

*Asia and Oceania:* Asia, Oceania

*Asia:* China, East Asia, Mongolia, South Asia, Southeast Asia

*East Asia:* Hong Kong, Japan, Macao, North Korea, South Korea, Taiwan

*Southeast Asia:* Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam

*South Asia:* Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka

*Oceania:* Australia, American Samoa, Fiji, Kiribati, New Caledonia, New Zealand, Papua New Guinea, Solomon Islands, Tuvalu, Vanuatu, Western Samoa