

AGRICULTURAL OUTLOOK



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The next issue (AGO-259) is scheduled for mailing on March 4, 1999. If not delivered by March 24, call (202) 694-5383 (please have mailing label handy). The full text will also be distributed electronically; call (202) 694-5050 for further information.

Cover photo: Grant Heilman Photography

Farm Income . . . Transportation Technology . . . the Tobacco Settlement . . . Land Tenure & Conservation

Net Farm Income To Decline but Remain Near 1990-98 Average

USDA's financial outlook for U.S. agriculture remains generally favorable, despite recent price collapses for many commodities. With prospects of lower production expenses and additional government payments authorized by recent legislation, net farm income for 1999 is forecast down \$3.4 billion to \$44.6 billion, still near the 1990-98 average. Farmers' equity should increase for the 10th straight year, reflecting the combination of a relatively small increase in agricultural assets and a modest decline in farm debt. Nonetheless, specific segments of the industry and areas of the country will continue to have cash flow problems.

Financial Crises Abroad, Lower Feed Costs Shape Broiler Prospects

Economic crises in Asia and Russia have combined to depress U.S. poultry export projections for 1998 and 1999, especially for broilers. The 1998 broiler export estimate has been lowered to 4.5 billion pounds and the forecast for 1999 reduced to 4.3 billion. With the export market impact on dark meat, which represents only 25-35 percent of the value of a broiler, the strength of the domestic market has offset potential negative effects on profitability. U.S. broiler producers' net returns were near record levels this summer as wholesale meat prices have been up and feed costs below a year earlier. As a result, U.S. broiler production is expected to grow about 5 percent in 1999.

Green Industry Receipts Grow Despite Imports

The U.S. green industry—producers of indoor and outdoor flowers and plants—has seen cash receipts rise an average \$500 million per year for more than a decade despite a steady loss of domestic market share to foreign growers. Consumer confidence in a robust economy, and low interest rates that spur new housing and businesses, will push retail floral and plant product purchases to a record \$54.6 billion in 1998, up \$2.9 billion from 1997.



Cigarette Price Increase Follows Tobacco Pact

Key elements of the recent agreement between the tobacco industry and state attorneys general require manufacturers to pay \$206 billion to states over a 25-year period (including \$300 million annually for research to reduce youth smoking and to support other anti-smoking measures). Combined with expenses from four previous state settlements, the agreement will have an inflationary effect on cigarette prices—the wholesale price, including tax, has already gone up nearly 50 percent since January 1998. Cigarette consumption is expected to decline, curbing demand for tobacco leaf and reducing marketing quota levels.

Farming Under Contract

Nearly \$60 billion of U.S. crops and livestock—about one-third—was grown or sold under contract in 1997, according to USDA's Agricultural Resource Management Study, and more than 1 in 10 farm operators reported income from contractual arrangements. Two-thirds of farms with contracts (marketing and/or production) in 1997 were small family farms (sales under \$250,000), but larger family farms (sales \$250,000 and over) and non-

family farms accounted for more than three-fourths of the value of products grown and sold under contract.

Conservation on Rented Farmland: A Focus on U.S. Corn Production

Analysis by USDA's Economic Research Service indicates a significant relationship between land tenure and corn farmers' decisions to adopt certain conservation practices. Based on 1996 data, cash-renters and share-renters are less likely than owner-operators to adopt contour farming, strip cropping, or grassed waterways—practices offering only longer term benefits. Cash-renters are also less likely to adopt conservation tillage, a practice that provides short-term profits as well as longer term benefits, while share-renters adopt this practice at about the same rate as owner-operators. These findings may have implications for agricultural resource use and environmental quality. If the percentage of farmland rented, especially through cash leases, continues to rise as it has in recent decades, future adoption of certain conservation practices, at least for corn producers, may be lower than otherwise expected.

Technology Eases Perishables' Journey

Advances in transportation technology have extended the marketing reach of U.S. perishable products by reducing delivery times, maintaining product quality, and reducing costs. The revolution in perishable product shipping technology began with containerization—handling standardized containers filled with cargo, rather than the cargo itself. Next came “reefers”—20- or 40-foot boxes with refrigeration units—and a further refinement—controlled atmosphere technologies—allowed shippers to regulate gases and humidity within containers to slow ripening, retard discoloration, and maintain freshness. Conventional refrigerated carriers are meeting the container ship challenge by concentrating into larger firms, utilizing capacity more effectively year-round, speeding cargo handling, and installing highly efficient refrigeration systems.

Briefs

Livestock, Dairy, & Poultry**Broiler Prospects Shaped by Financial Crises Abroad, Lower Feed Costs**

Economic crises in Asia and, more recently, in Russia, have combined to depress U.S. poultry export projections for 1998 and 1999. Most of the decrease has come in broiler exports—the 1998 broiler export estimate has been lowered to 4.5 billion pounds, and the forecast for 1999 has been reduced to 4.3 billion. These would be the first decreases in broiler exports since 1984.

In September 1998, a dramatic downturn occurred in broiler exports to Poland, the Baltic States—Latvia, Lithuania, and Estonia—and Russia and the other New Independent States (NIS) of the former Soviet Union. Broiler shipments to these countries accounted for 52 percent of all U.S. broiler exports.

Over the first 9 months of 1998, shipments to these countries had reached 1.9 billion pounds, about even with the same period in 1997. While direct sales to Russia were down 13 percent (190 million pounds), sales to Estonia, Latvia, and Poland increased almost 50 percent to 450 million pounds. U.S. broiler exports to these countries are largely transshipped to Russia and other NIS countries, following traditional transportation and distribution patterns. Exports to Poland through September totaled 138 million pounds, even though Poland has set an annual quota on broiler imports of only 80 million pounds. Direct shipments to NIS countries other than Russia increased 250 percent from the previous year in the first 9 months of 1998.

After averaging 216 million pounds a month over the first 8 months of 1998, broiler exports to the Baltic States and Russia and other NIS countries plunged to 27 million as the devaluation of the ruble raised domestic prices and lowered consumer incomes. Exports to Russia and surrounding countries are expected to begin gradually increasing in 1999 as the ruble's exchange rate stabilizes and economic recovery plans are put in place, but

exports for the year are expected to be significantly lower than in 1998.

The Asian economic crisis, in contrast, has not depressed broiler exports, although it has had negative effects on shipments of other U.S. poultry exports. The crisis began in Korea, Thailand, Malaysia, Indonesia, and Singapore, but quickly affected the economies of Hong Kong and Japan. Among the earliest affected countries, Singapore and Korea are significant markets for U.S. poultry products, and Thailand is a major broiler producer and U.S. competitor. The decline of Thailand's baht against the dollar has made its broiler exports more competitive with the U.S. in Hong Kong/China and Japan, helping to bring U.S. broiler product prices down in these markets. Hong Kong is a major market for poultry products, and it also serves as the chief port for poultry products destined for China. Hong Kong/China and Japan are the primary Asian markets for U.S. broiler prod-

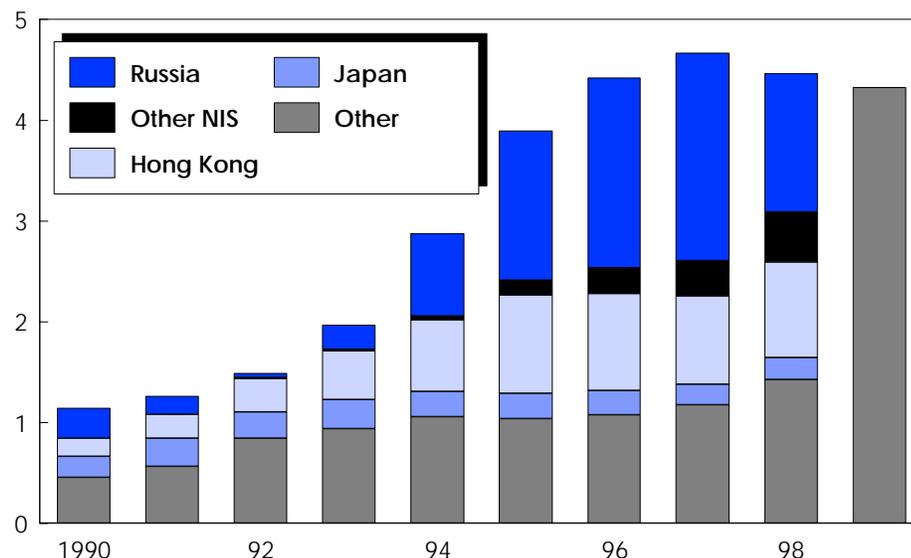
ucts, accounting for 26 percent of all exports in 1997.

At the beginning of 1998, U.S. broiler exports to Hong Kong/China fell significantly as consumers avoided all chicken products following a scare that Avian influenza might be able to pass from poultry to humans. By early spring, however, exports of broilers to Hong Kong/China rebounded to levels above the previous year, and through September were 2 percent above the same period in 1997. Exports of broiler products to Japan have also risen, but exports of U.S. turkey products, eggs, and other chicken products, pressured by lower broiler product prices, have fallen considerably in 1998. Japanese consumers are likely substituting lower valued U.S. broiler products for higher priced broiler products from other sources, as well as for higher priced poultry products from the U.S.

Domestically, U.S. broiler producers are encountering higher prices and lower feed costs than a year earlier. Broiler production is expected to increase about 5 percent in 1999 as increased producer profitability makes production increases more attainable and attractive. Producer

U.S. Broiler Exports To Decline From Recent Records

Billion lbs.



Individual country data not available for 1999. 1998 preliminary; 1999 forecast. NIS = New independent States of the former Soviet Union.

Economic Research Service, USDA

net returns were near record levels this summer as wholesale meat prices have been up and feed costs have been about 20 percent below a year earlier. Because the export market impact has been on dark meat, which represents only 25-35 percent of the value of a broiler, the strength of the domestic market has offset potential negative effects on profitability.

Broiler production had increased only fractionally in the second and third quarters of 1998 relative to a year earlier, as hatchery supply flock problems and low profitability in late 1997 limited increases in bird numbers and as hot weather slowed growth rates in some leading southern production areas. In response to high net returns over the summer, however, pullet hatch for potential placement in the hatchery supply flock in September

was 19 percent higher than a year earlier. Egg sets in incubators for broiler production were up between 4 and 5 percent in mid-November for the 15 states surveyed. And stronger increases in broiler-type chick hatch in the fall indicate production should increase more vigorously in 1999.

Prices for whole birds set a record-high average for 1998. Prices for whole birds are expected to continue stronger than a year earlier into early 1999, but for most of the year should be slightly weaker than a year earlier as production increases accelerate. Prices for whole birds in 1999 are not expected to match the record-high levels of August 1998.

Stronger prices for skinless, boneless breast meat and wings, up about 10 per-

cent and 20 percent from year-earlier levels since May, reflect strength in the fast-food market. Leg quarter prices dropped significantly when the Russian market collapsed, peaking at over 38 cents a pound on the northeast wholesale market in mid-August and hitting a low of 17 cents in December. Plentiful pork supplies are also competing with low-priced poultry products in the export market. Recovery of price levels for leg quarters in 1999 depends on whether sales to Russia and Asia increase and supplies of competing beef and pork decline.

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Specialty Crops

Green Industry Cash Receipts Growing Despite Import Competition

The U.S. “green” industry—producers of indoor and outdoor flowers and plants—has enjoyed rising cash receipts for more than a decade despite a steady loss of domestic market share to foreign growers (AO July 1997). In 1998, consumer confidence in a robust economy, along with relatively high disposable income and low unemployment, helped push floral and plant product purchases to record levels. Similarly, low interest rates have spurred new housing and business starts, helping fuel demand for landscaping products and services.

The green industry—or nursery and greenhouse sector—has two major subsectors: floriculture (cut flowers, cut cultivated greens, and potted flowering and foliage plants), and environmental horticulture (trees and shrubs, bedding and garden plants, and turfgrass). Environmental horticulture dominates green industry sales, accounting for four-fifths of growers’ cash receipts.

Retail expenditures for nursery and greenhouse products reached \$54.6 billion in 1998, up \$2.9 billion (5.5 percent) from 1997. Environmental horticulture products generated \$38 billion in retail sales (\$141 per capita) while floriculture product sales totaled \$16 billion (\$61 per capita).

Overall, 91.5 percent of domestic sales of nursery and greenhouse products in 1998 was accounted for by U.S.-grown products. Foreign competition is felt most keenly in floriculture, where U.S. share of 1998 domestic sales fell to 72.8 percent (down 1.3 percent from 1997). Of the \$1.1 billion in floral and nursery products imported in 1998, cut flowers alone accounted for 60 percent.

In contrast, U.S.-grown environmental horticulture products accounted for 97.3 percent of the U.S. retail sales market, holding at the previous year’s level. Since these products generated 80 percent of green industry grower cash receipts, the projected 5-percent rise in spending for

outdoor plant products in 1999 bodes well for the green industry sector.

Grower cash receipts increased 5 percent to \$12 billion in 1998 compared with \$11.4 billion in 1997. The green industry’s high-value-product sales accounted for more than one-tenth of 1998 total U.S. crop cash receipts. Cash receipts in most floriculture and environmental horticulture product categories are increasing annually at 4-5 percent, and bedding and garden plants have been experiencing even faster growth.

Bedding and garden plants subsector leads green industry growth. Bedding and garden plant cash receipts jumped 8 percent in 1998. A similar increase is expected in 1999. These outdoor products—flowering, nonflowering, and vegetable plants—are generally “annuals” rather than “perennials,” and may be sold in flats, pots, or hanging baskets. Flower-

For more data and analysis, visit the **Floriculture and Environmental Horticulture Briefing Room** www.econ.ag.gov/briefing/floral/ Look for the October 1997 ERS report “Floriculture and Environmental Horticulture” (Next report available October 1999)

Briefs

Growers Receipts Rise as Sales of U.S. Greenhouse/Nursery Products Expand

	Production and trade			Retail expenditures ¹		
	Grower cash receipts	Imports	Exports	Total	Per capita	Domestic share
	—\$ million—			Dollars	Percent	
Floriculture indoor products ²						
1996	2,215.7	692.7	106.0	14,911.2	56.21	75.3
1997	2,268.0	753.9	106.8	15,572.6	58.12	74.1
1998	2,345.1	830.0	124.0	16,411.4	60.64	72.8
Environmental horticulture ³						
1996	8,660.0	257.5	119.4	34,534.0	130.18	97.1
1997	9,125.3	248.6	130.0	36,167.5	134.99	97.3
1998	9,654.9	260.0	140.0	38,185.0	141.10	97.3
Total nursery and greenhouse products						
1996	10,875.8	950.2	225.4	49,445.2	186.39	91.8
1997	11,393.3	1,002.6	236.8	51,740.1	193.11	91.8
1998	12,000.0	1,090.0	264.0	54,596.4	201.75	91.5

¹Includes services such as landscaping, installation, and maintenance. ²Includes cut flowers, cut greens, and potted plants. ³Includes bedding plants, nursery stock, turfgrass, bulbs, and groundcovers.

Source: Economic Research Service, USDA

ing annuals, used by homeowners and businesses to provide instant seasonal color, are often discarded and replaced when their decorative value diminishes.

Bedding plant supply is usually timed for spring and fall marketing, because a spring-summer, fall-winter rotation is common in the U.S. For example, popular flowering bedding plants such as impatiens, geraniums, petunias, and New

Guinea impatiens may be purchased by homeowners and landscapers for the spring-summer season, to be replaced by pansies, garden mums, and flowering kale for the fall-winter cycle.

The relatively fast growth of domestic grower receipts for bedding and garden plants has occurred partly because these products have little or no import competition. Imports are generally restricted for

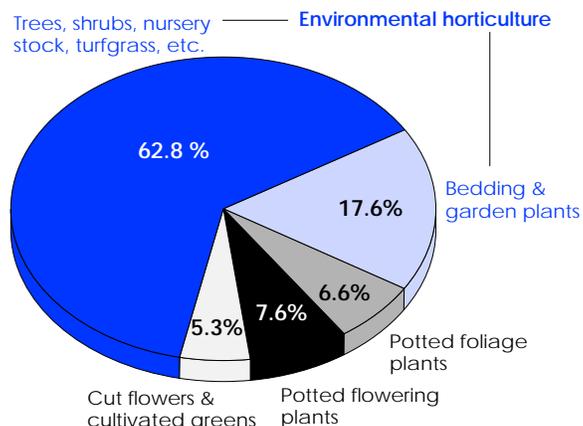
phytosanitary reasons, and international shipments of plants in growing media is costly and complex.

Expenditures for environmental horticulture products other than bedding and garden plants increased 5 percent in 1998 to about \$32 billion (\$118 per capita). Grower cash receipts are projected to rise to \$7.5 billion in 1999 for products in this category, which includes trees, shrubs, bulbs, ground covers, turfgrass, nursery stock for commercial fruit and vegetable production and home plantings, and seedlings for Christmas tree plantations, wildlife, and conservation purposes.

Cut flower and cut green subsectors are still struggling with imports. In 1998, U.S. growers scaled back the area planted to production of cut flowers and cut cultivated greens because of competition from imports. The U.S. share of domestic retail sales dropped to 45 percent, and USDA projects further production cutbacks by U.S. growers in 1999. Nevertheless, grower sales of U.S.-produced cut flowers and cut greens were up 4 percent in 1998, reaching \$639 million.

Despite modest gains in grower cash receipts in 1998, grower sales of the major cut flowers, including roses, carnations, chrysanthemums, and gladioli, were lower.

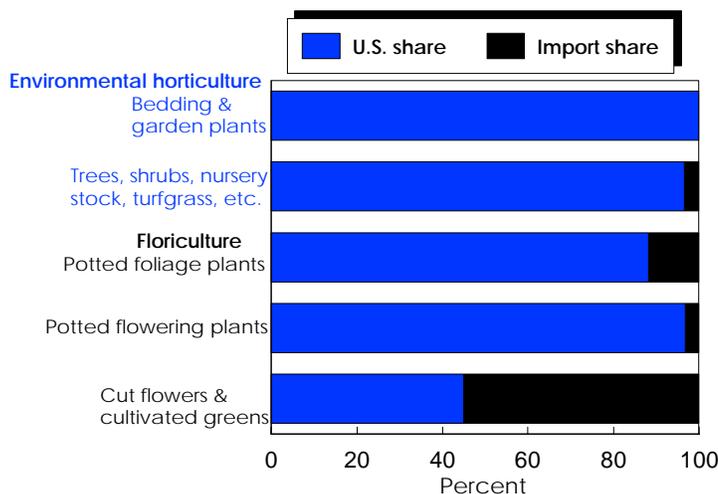
Environmental Horticulture Brings in Largest Share Of U.S. Growers' Cash Receipts . . .



1998 grower cash receipts: \$12 billion

1998 projected. Economic Research Service, USDA

. . . and Faces Least Competition from Imports



1998 retail sales: \$54.6 million

Domestic production of the major cut flower varieties continues on a downward track, while production of specialty cut flowers (such as snapdragons, baby's breath, statice, gerbera daisies, sunflowers, and asters, many of which are field-grown rather than greenhouse-grown), continues to increase. Cut flower imports totaled \$650 million (import value) in 1998, accounting for at least two-thirds of the volume of U.S. cut flower sales. This represents an increase of 9 percent over 1997.

Domestic production of cut cultivated greens fell in 1997, but rebounded in 1998 to about \$130 million in growers cash receipts, up 9 percent but still below 1996. At the same time, imported quantities continue to increase and now account for about one-third of U.S. sales. Imports of cut greens were valued at \$50 million in 1998, up 5 percent from 1997.

Potted foliage and flowering plant sales are up. Grower sales of potted flowering and foliage plants for indoor use totaled \$1.7 billion in 1998, up 3 percent from 1997. Increased consumer and business demand for indoor plants stems from their aesthetic value as well as their ability to absorb indoor air pollutants.

Potted flowering plants accounted for about 55 percent of potted plant cash receipts and potted foliage plants for the remaining 45 percent. Sales of potted plants are expected to trend upward again in 1999, with flowering and foliage varieties making similar gains.

The most popular varieties of flowering plants include potted poinsettias, African violets, florist azaleas and chrysanthemums, cyclamens, kalanchoes, hydrangeas, orchids, and lilies. Recently,

foliage plant sales have increased and are expected to continue strong. Dieffenbachia, schefflera, ficus, spathiphyllum, bromeliads, and philodendrons are among the most popular foliage plants.

As with bedding and garden plants, import competition for potted plants is limited by U.S. phytosanitary regulations. In order to lessen the risk of introducing foreign plant diseases or insects, importation of plants with roots in soil or other growing media is strictly controlled. As a result, most imports are cuttings or propagative materials used by growers to start new plants.

Industry sales will likely continue to grow. Despite increasing competition from imports, cash receipts for green industry producers have been gaining an average \$500 million per year. In nominal terms, producer prices for most flower and plant crops have been fairly stable; volume increases have pushed grower sales upward in almost all categories.

With demand for floral and nursery-related products linked to the health of the general economy, economic growth generally leads to higher retail sales in the nursery and greenhouse sector. In fact, green industry sales are projected to grow at twice the rate of the general economy in 1999.

Strong demand from consumers, businesses, and institutions for flowers, plants, and landscaping greenery is expected to continue, pushing U.S. retail sales to \$57 billion in 1999—\$40 billion for environmental horticulture and \$17 billion for floriculture. Even if U.S. producers capture a smaller share of that domestic market, it will still translate into increased

income. Green industry growers' cash receipts are projected to reach \$12.5 billion in 1999.

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Upcoming Reports—USDA's Economic Research Service

The following reports will be issued electronically on dates and at times (ET) indicated.

January

- 12 *World Agricultural Supply and Demand Estimates* (8:30 am)
- 13 *Oil Crops Outlook* (4 p.m.)**
Rice Outlook (4 p.m.)**
- 14 *Feed Outlook* (9 a.m.)**
Wheat Outlook (9 a.m.)**
- 25 *U.S. Agricultural Trade Update* (3 p.m.)
- 26 *Livestock, Dairy, and Poultry* (4 p.m.)

February

- 10 *World Agricultural Supply and Demand Estimates* (8:30 a.m.)
- 11 *Cotton and Wool Outlook* (4 p.m.)**
Oil Crops Outlook (4 p.m.)**
Rice Outlook (4 p.m.)**
- 12 *Feed Outlook* (9 a.m.)**
Wheat Outlook (9 a.m.)**
- 19 *Agricultural Outlook**
- 22 *Outlook for U.S. Agricultural Trade**
- 24 *Livestock, Dairy, and Poultry* (4 p.m.)
- 26 *Agricultural Income and Finance**
U.S. Agricultural Trade Update (3 p.m.)

* Release of summary, 3 p.m.

** Available electronically only

Briefs

Farm Structure

More Farmers Contracting To Manage Risk

Almost a third of crops and livestock produced by American farmers was grown or sold under contract in 1997, according to USDA's Agricultural Resource Management Study (ARMS). Departing from a tradition of independent farm operators who have complete control over production and marketing decisions, contracting is a growing trend in American agriculture (AO May 1997). Today, more than 1 in 10 farm operators report income from contractual arrangements.

Contracting offers farm operators the advantages of reducing risks of price swings, sharing production costs, and stabilizing income. For contractors (primarily processors and packers), these arrangements assure a ready supply of uniform, high-quality farm products and ease inventory management problems.

Contracts—either written or oral agreements—will generally spell out the parties' understanding of how a commodity is to be produced and/or marketed, including specifications for quantity, quality, and price. Marketing contracts are commonly used for crops, while production contracts are more prevalent in the livestock industry.

Under a *marketing contract*, a price (or pricing mechanism) is established for a commodity before harvest or before the commodity is ready for marketing. Most management decisions remain with the grower, who retains ownership of both production inputs and output until delivery. With a marketing contract, the farmer assumes all risks of production but shares price risk with the contractor.

A *production contract* details who supplies the necessary production inputs—the contractor or the farmer (contractee)—as well as the quality and quantity of a particular commodity and the compensation due the farmer for services rendered. Under livestock production contracts, the farmer is paid to provide housing and care

for the animals until they are ready for market, but the contractor actually owns the animals.

Although cash markets still dominate the agricultural sector, nearly \$60 billion (31.2 percent) of total production was covered by contracts. Commodities produced under marketing contracts accounted for 21.7 percent of the total U.S. value of production, while those under production contracts accounted for 9.5 percent. In 1997, 9 percent of farmers sold at least part of their output through marketing contracts, and 2.2 percent had some income from production contracts.

Between 1991 and 1997, the share of commodities produced under marketing contracts increased from 16 percent to 22 percent of total U.S. value of production. The production contract share of the total has varied between 10 and 15 percent, with no clear trend.

Topping the list of crops produced under marketing contracts were fruits and vegetables, with \$11 billion sold through

contract, 40 percent of the value of all fruits and vegetables produced. Other crops with large shares of production value under marketing contracts were cotton (\$1.9 billion, or 33 percent); corn (\$1.7 billion, or 8 percent); soybeans (\$1.7 billion, or 9.4 percent); and sugar beets (\$973 million, or 82 percent). Just under 10 percent of the value of cattle production was sold under marketing contracts, compared with more than 60 percent of the value of dairy products.

Production contracts are more likely to be used for livestock. Poultry and poultry products accounted for over 50 percent of the total value of commodities under production contracts, and cattle and hogs another 41 percent. Within the poultry category, 70 percent of the commodity value of production was produced under production contracts. In contrast, 33 percent of the value of production of hogs and 14 percent of cattle were covered by production contracts.

While farms of all types and sizes engage in contracting, two-thirds of farms with contracts (marketing and/or production) in 1997 were small family farms (sales under \$250,000). However, larger family farms (sales \$250,000 and over) and non-family farms accounted for more than three-fourths of the value of products grown and sold under contract.

Typology of U.S. Farms

Small family farms

Limited-resource: Operator household income under \$20,000, farm assets under \$150,000, and gross farm sales under \$100,000

Retirement: Operator's primary occupation is retired

Residential/lifestyle: Operator's primary occupation is "other"—neither farming nor retired

Farming/lower sales: Operator's primary occupation is farming and gross farm sales under \$100,000

Farming/higher sales: Operator's primary occupation is farming and gross farm sales \$100,000- \$249,000

Larger family farms

Large: Gross farm sales \$250,000-\$499,999

Very large: Gross farm sales \$500,000 or more

Nonfamily farms

Nonfamily corporations or cooperatives, and farms run by hired managers

Two-thirds of Farms with Contracts Are Small...

	Small family farms					Larger family farms		Nonfamily farms	All farms
	Limited-resource	Retirement	Residential/lifestyle	Farming/lower sales	Farming/higher sales	Large	Very large		
Farms:									
All farms (number)	195,572	304,293	811,752	396,698	178,210	79,240	45,804	37,816	2,049,384
All farms (percent)	9.5	14.8	39.6	19.4	8.7	3.9	2.2	1.8	100.0
Farms with contracts (percent)	2.5	9.0	13.9	20.2	21.4	16.5	12.7	3.8	100.0
Value of production:									
Total (\$ million) ¹	1,615.5	4,378.2	13,126.7	19,971.5	35,249.7	30,230.7	59,582.5	27,569.3	191,724.0
Contract value(\$ million)	137.4	542.9	1,758.3	4,678.6	6,834.6	8,421.3	26,409.1	11,043.2	59,825.5
Production contracts (\$ million)	d	147.2	524.4	943.2	970.7	3,012.6	8,762.3	3,843.8	18,215.7
Marketing contracts (\$ million)	d	395.6	1,233.9	3,735.4	5,863.9	5,408.7	17,646.9	7,199.4	41,608.8
Share of contract value (percent)	0.2	0.9	2.9	7.8	11.4	14.1	44.1	18.5	100.0

... but Larger Farms Are More Likely To Use Contracting

Percent of farm type with:

Production and/or marketing contracts	2.9	6.7	3.9	11.6	27.2	47.2	62.9	23.1	11.1
Production contracts ²	d	0.8	0.7	1.9	4.9	13.3	20.0	2.2	2.2
Marketing contracts ²	d	5.9	3.3	9.8	23.1	36.2	45.8	21.6	9.2
Percent of value of production under contract	8.5	12.4	13.4	23.4	19.4	27.9	44.3	40.1	31.2

1. Survey-based estimates exclude Alaska and Hawaii and do not represent official USDA estimates of farm sector activity. 2. Includes some farms that have both production and marketing contracts.

d - Data insufficient for disclosure.

Source: 1997 Agricultural Resource Management Study, USDA.

Economic Research Service, USDA

Larger family farms were more likely to use contracting than small family farms— 53 percent compared with 8 percent. Larger farms were also more likely than other farms to use production contracts instead of marketing contracts. Larger family farms accounted for 65 percent of the total value of commodities produced under production contract, while nonfamily farms accounted for 21 percent and small family farms for the remaining 14 percent.

Farms with marketing contracts—9 percent of all farms—outnumbered those with production contracts by 4 to 1. While small farms made up almost 70 percent of the farms engaged in marketing through contracts, they accounted for only 27 percent of the total value of production sold under marketing contracts.

Dairy products marketed by small farms under contract were valued at \$6.3 billion, or more than half of the marketing contract value of production on small farms. Small family farms sold \$1.6 billion of fruit and vegetables through marketing

contracts—20 percent of the value of all fruit contract marketings and 5 percent of the value of all vegetable contract marketings. Other crops raised on small farms and marketed through contracts include soybeans, cotton, and corn, but contracted value of these commodities totaled just \$1.4 billion.

Larger family farms sold 70 percent of their total value of dairy products through marketing contracts, as well as 66 percent of their fruit and 38 percent of their cotton. Other crops grown under marketing contract on larger family farms include vegetables, corn, and soybeans. Commodities under marketing contracts on nonfamily farms were predominantly fruits, cattle, and dairy products.

As government programs become more market-oriented, all farm operators will need to continue developing their risk management skills in order to protect their operations from high debt levels and unpredictable price swings. Contracting is likely to be a part of farmers' efforts to reconcile production preferences with expected conditions in the marketplace, locking in purchasers for their products, sharing costs with investors, and ensuring compensation for their labor.

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For more information on family farms**Structural and Financial Characteristics of U.S. Farms, 1995: 20th Annual Family Farm Report to the Congress**

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Commodity Spotlight



Cigarette Price Increase Follows Tobacco Pact

The recent agreement worked out between the tobacco industry and state attorneys general on November 16, 1998 requires manufacturers to reimburse states for costs of treating smoking-related illnesses and provides for specific measures to reduce underage smoking. Combined with expenses from four previous individual state settlements, the agreement will have an inflationary effect on cigarette prices. Manufacturers had already raised wholesale prices four times in 1998 prior to the settlement, resulting in a 14-percent overall rise at the wholesale level, in part in anticipation of future expenses. Adding increases since the settlement, the wholesale price of cigarettes, including tax, has gone up nearly 50 percent since January 1998.

Key elements of the pact require manufacturers to pay \$206 billion to states over a 25-year period (including \$300 million annually for research to reduce youth smoking and to support other anti-smoking measures). The pact also limits sporting event sponsorship and advertising (including a ban on cartoon characters) and prohibits “branded” merchandise—merchandise made available to customers that displays the name or symbols of a brand of cigarettes. Tobacco industry organizations such as the Tobacco Institute and

the Council for Tobacco Research are disbanded. Agreements in the four previously settled individual state lawsuits commit the industry to an additional cost of about \$45 billion over 25 years.

Signed just a few days after it was announced by the 46 states that had not already settled individually, as well as by the District of Columbia and several territories, the new tobacco settlement, unlike the abortive June 1997 agreement, requires no approval by Congress. The narrower scope of the current agreement reflects its more limited goals: reimbursing states for smoking-related health costs under Medicaid, restricting advertising and promotional sponsorships by tobacco companies, and putting an end to lawsuits initiated by states against cigarette manufacturers. This agreement forgoes a complete ban on advertising for sporting events, as well as authorization for the regulation of tobacco by the Food and Drug Administration (e.g., possible restrictions on nicotine content of tobacco products), which would have required Congressional approval. And the industry remains subject to individual and class action lawsuits.

On November 23, the day of the new settlement’s signing, two major cigarette

companies raised wholesale prices by 45 cents per pack, the largest increase in history. Other manufacturers will follow. Retail prices, while not likely to reflect the entire increase, will rise substantially, as most of the settlement’s cost will be passed on to consumers.

Higher cigarette prices, as well as increased taxes in some states, could cause consumption to slide as much as 25 percent over the next 10 years, compared with an expected decrease of 17 percent at the current rate of decline. Growing restrictions on permissible smoking areas and increased awareness of health risks associated with smoking had already fueled a decline in U.S. cigarette consumption at a rate of about 2 percent per year since its peak at 640 billion pieces in 1981. Domestic cigarette consumption is forecast to decline to 470 billion pieces in 1998 from 475 billion in 1997.

After increasing nearly every year since the mid-1980’s, U.S. cigarette exports also turned downward in 1997 as offshore production by U.S. manufacturers rose and as demand declined in some major consuming nations. U.S. cigarette exports fell 11 percent to 217 billion pieces in 1997, and the decline is expected to continue. The economic crisis in Asia is likely to exacerbate shrinking demand in Pacific Rim nations.

In 1998, U.S. cigarette output is expected to total 680 billion pieces, down from 720 billion in 1997 when cigarettes sales were \$50.4 billion and accounted for 94 percent of U.S. tobacco product sales. Lower cigarette consumption will likely curb demand for tobacco leaf. While the tobacco agreement calls for no specific compensation for growers, manufacturers are negotiating voluntary payments to make up for lost value of quotas due to declining leaf demand. At press time, no agreement had been reached.

Tobacco Auction Prices Higher

Flue-cured and burley tobacco represent 95 percent of tobacco grown in the U.S. *Flue-cured* tobacco, also known as Virginia-type tobacco leaf, is grown in the southeastern U.S. and cured under heat to achieve world-renowned golden leaf. *Burley* tobacco is air-cured; leaf is hung in a

Commodity Spotlight

well-ventilated barn during the curing process and is grown in Kentucky, Tennessee, Virginia, West Virginia, Indiana, Ohio, Missouri, and North Carolina. Both types are used primarily in cigarette manufacture. Tobacco is also used in cigars, snuff, chewing tobacco, and smoking tobacco.

Flue-cured auction markets closed November 12 after being open for 64 days, about the usual period. Quality was good, similar to last season. Depending on grade, prices averaged \$1.76 per pound, up 1-3 cents from a year earlier.

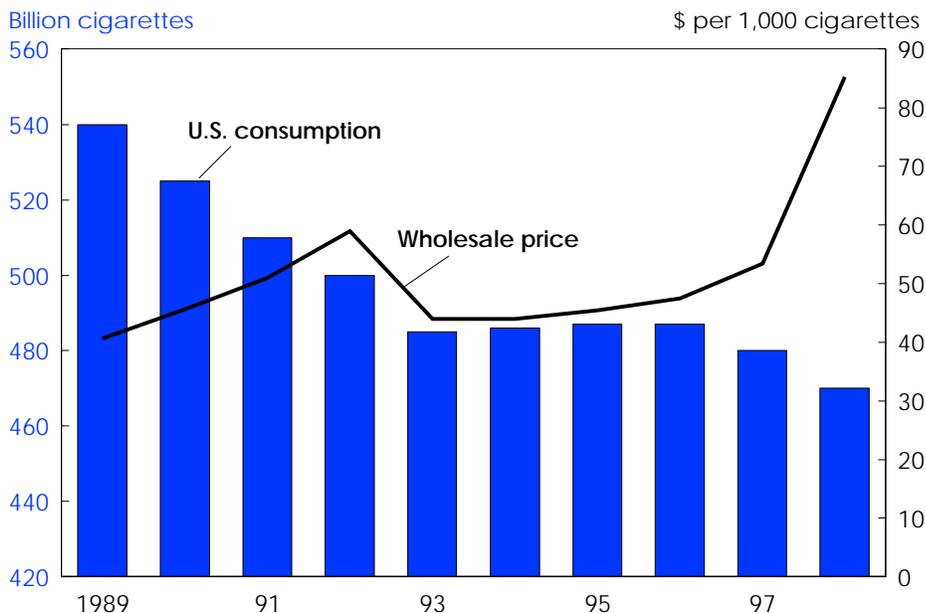
Traditionally, flue-cured tobacco has been sold in “sheets,” piled on large burlap squares. This year, bales—which can be moved more efficiently in warehouses—were tried and proved successful. Sales of baled leaf were substantial in some markets and brought higher per-pound prices.

Production in 1998 was lower, and marketings totaled just 816 million pounds compared with about 1 billion last season. Drought in Florida, Georgia, and South Carolina lowered yields, and reduced domestic demand for leaf and declining exports led to a drop in the 1998 quota.

Under the federally administered tobacco program, growers are allowed to market up to a quota set to support tobacco prices. The Flue-Cured Stabilization Corporation, a quasi-governmental corporation, offers to buy tobacco that does not receive an auction bid greater than its support price. With a smaller crop, different grade mix, and large world supplies, the Flue-cured Stabilization Corporation took 10 percent of total producer sales compared with 19 percent last season.

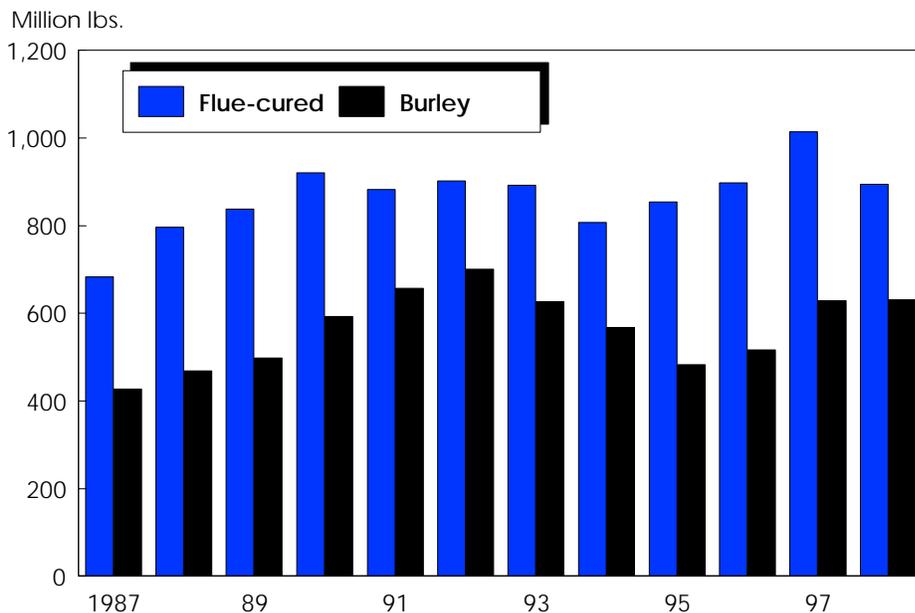
On December 15, USDA announced the flue-cured marketing quota for the 1999/2000 marketing year (July-June). The quota prior to adjustment for previous year’s over- and under-marketings is 666 million pounds, 18 percent below the 1998 quota of 814 million pounds and 32 percent below 1997’s quota of 974 million pounds. The 1999 quota is the lowest since poundage quotas were instituted for flue-cured in 1965.

U.S. Cigarette Consumption Declines As Prices Rise Sharply



Prices as of December 31; excludes Federal excise tax. 1998 forecast.
Economic Research Service, USDA

Tobacco Marketings Down in 1998



Season begins July 1 for flue-cured and October 1 for burley. 1988 forecast for burley.
Economic Research Service, USDA

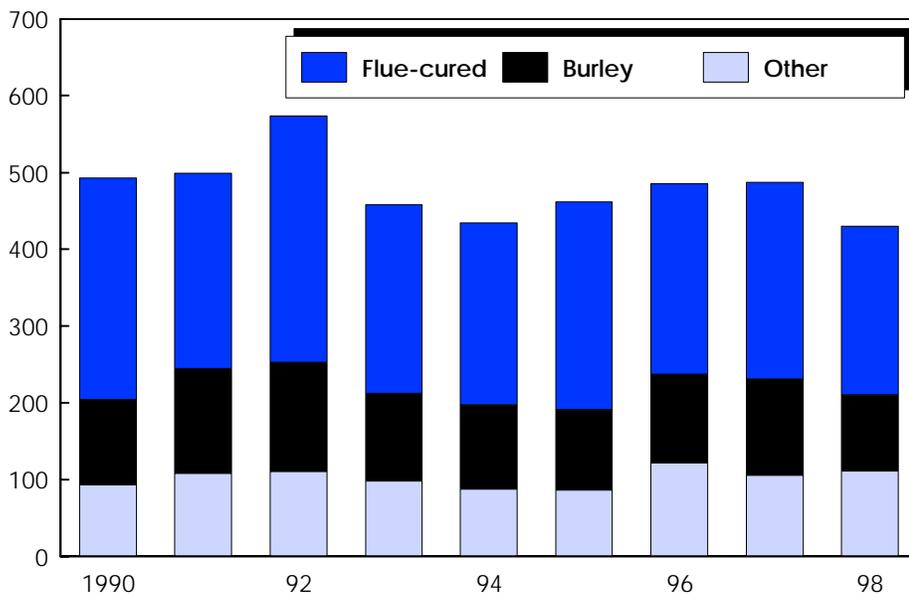
The tobacco quota is calculated using a formula that sums domestic manufacturers’ purchase intentions, the average of the preceding 3 year’s exports, and an adjustment to maintain a minimum stock

level. This sum can be adjusted up or down as much as 3 percent by the Secretary of Agriculture—the Secretary adjusted the quota upward by the full 3 percent in 1998.

Commodity Spotlight

U.S. Tobacco Exports Off in 1998

Million lbs.



Unmanufactured tobacco. 1998 forecast.
Economic Research Service, USDA

Burley auction markets opened on November 23 for the 1998 season. *Burley* markets generally open in November and continue through late February or early March. The 1999 *burley* marketing quota will be announced February 1.

Despite larger harvested acreage, lower yields pulled down 1998 *burley* production by 2.5 percent to an estimated 632 million pounds (including 450 million in Kentucky). This year's quality is good, better overall than last season. With a smaller crop and higher price supports, prices are expected 2-3 cents per pound higher than a year ago to about \$1.91 per pound. The price support level for 1998

was set at \$177.80 per cwt, up \$1.80 from 1997.

Any rise in cigarette prices in 1999 will be mostly related to post-farmgate market developments rather than higher tobacco prices. Tobacco is a relatively small part of the total cost of producing cigarettes—about 5 percent—and cigarette companies can adjust for higher domestic prices by increasing their use of imported leaf.

U.S.-made cigarettes and a growing share of foreign production are "American-blend," containing a blend of about 47 percent flue-cured, 40 percent *burley*, and 13 percent Oriental leaf. About 60 percent

of leaf in U.S.-made cigarettes is domestically grown. Oriental tobacco, which is not grown in the U.S., is mostly imported from Turkey, Greece, and Macedonia.

Cigarette manufacturers import about 35-40 percent of the tobacco used in cigarettes because foreign tobacco is less expensive (although lower in quality). As a result, the U.S. is both the world's largest tobacco importer and one of the world's largest exporters of leaf. About one-third of U.S. output is shipped to foreign markets for manufacturing cigarettes.

This year's higher tobacco prices mask the effects of declining quota levels, which could reduce overall cash receipts for growers. While tobacco support prices shelter farmers from large downturns in prices, declining demand for tobacco leaf over time—caused by declining cigarette output—results in lower quotas. As growers' tobacco marketings are restricted, their incomes fall.

The long-term decline in demand will inevitably result in lower incomes for growers and their communities. Increased exports of tobacco leaf may provide some relief to growers, but may be limited by the tobacco program itself. Since the program was designed to protect U.S. tobacco farmers by increasing U.S. prices, it also has the effect of making U.S. tobacco less competitive on the world market. Over time, U.S. tobacco farmers will be forced to turn to supplementary crop or livestock enterprises or off-farm sources of income.

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Farm Finance



Net Farm Income To Decline but Remain Near 1990-98 Average

USDA's financial outlook for U.S. agriculture remains generally favorable, despite the recent price collapse for many commodities. With additional government support payments and with prospects of lower production expenses, net farm income for 1999 should remain near the 1990-98 average.

The financial soundness of the overall U.S. farm balance sheet reinforces the USDA outlook. Farmers' equity in agricultural assets should increase for the 10th straight year, reflecting the combination of relatively small increases in assets and a modest decline in farm debt. Nonetheless, specific segments of the industry and areas of the country will continue to struggle with cash flow problems.

Net farm income in 1998 and 1999 is receiving a significant boost from approximately \$5.6 billion in government support as part of the 1999 Appropriations Act, which is in addition to support provided under the 1996 Farm Act. These additional payments provided under the legislation will boost 1998 net farm income, while disaster payments, coupled with stable to declining production expenses and improved receipts for some commodities (notably livestock, cotton, fruit, and nursery and greenhouse prod-

ucts), will reduce the adverse impact of low grain prices on 1999 income.

Net farm income, which accounts for changes in farm inventories and noncash income and expenses, is forecast at \$44.6 billion in 1999. This is down from the revised 1998 preliminary estimate of \$48 billion, which would be the fourth highest on record, trailing only 1996 and 1997 by any significant amount. The 1999 forecast is only slightly below the decade's \$45.5-billion average.

Net cash income, the return to farm operators from sales and other cash income minus out-of-pocket expenses, is estimated at \$59.1 billion for 1998, the second highest on record. The 1999 forecast is \$55.5 billion—above the 1990-98 average.

Production Value & Expenses To Be Unchanged

The value of crop and livestock production is forecast to be \$197.4 billion in 1999, virtually unchanged from 1998. Production of many agricultural commodities is expected to remain high, barring adverse weather in major producing states. Consequently, crop receipts will continue to be pressured by low market

prices as in 1998. Prices for many commodities fell to new lows in 1998, and there is little reason to expect significant changes in 1999. Commodity Credit Corporation loan rates are supporting revenues from major crops to some extent.

In 1999, lower farm prices are expected to be partly offset by lower expenses, due mainly to lower input prices and interest rates. Farmers will likely continue to modify their financial strategies and production measures to achieve additional cost savings. For example, some businesses will refinance existing debt into longer term obligations, reducing interest expenses. Adoption of new technologies such as Bt corn should help lower production costs.

The value of commodity production in 1999 is expected to exceed the 1990-98 average by almost \$11 billion because of high production, with crop value up 5.5 percent and livestock value up 4.9 percent. The values of production in 1998 and in 1999 are exceeded only by 1996 and 1997 when higher crop values pushed up the total. In those 2 years, farmers benefited from an unusual combination of large harvests and high prices, resulting in part from strong export demand.

In 1999, total farm expenses are forecast to be \$186.1 billion, up 0.5 percent from the revised forecast for 1998. Expenses decreased in 1998, the first significant drop since 6-percent declines in 1985 and 1986.

Interest rates and fuel prices are at the lowest levels seen in recent years, which will help farmers hold down production costs in 1999 if low levels are maintained as expected. The average interest rate on outstanding debt will fall, although exact movements in interest rates and their effect on debt structure are not known. Low oil prices, in addition to keeping a lid on fuel prices, should also translate into stable to lower fertilizer prices. Farm wage rates will probably rise less than in the previous 3 years, which were characterized by tight labor markets and increases in production of labor-intensive crops. The only significant jump in input prices will be cattle and calves for feeding operations, expected up 10-20 percent as supplies tighten.

Farm Finance

U.S. Farm Income To Stabilize in 1999

	Average 1990-98	1995	1996	1997	1998	1999	Change 1998-99
<i>\$ billion</i>							
Crop receipts	96.1	95.8	115.6	112.5	104.6	102.2	-2.4
Food grains	9.1	10.4	10.7	10.6	8.8	8.3	-0.5
Feed crops	22.4	24.6	27.3	27.6	23.8	21.9	-1.9
Cotton	6.0	6.9	7.0	6.5	5.6	6.1	0.5
Oil crops	15.1	15.5	16.4	19.9	17.6	16.3	-1.3
Livestock receipts	90.5	87.6	92.2	96.2	92.9	95.2	2.4
Meat animals	47.7	44.8	44.4	49.9	43.1	47.7	4.6
Dairy products	20.5	19.9	22.8	21.0	23.9	22.5	-1.4
Poultry and eggs	18.7	19.1	22.3	22.2	22.8	22.4	-0.5
Services and forestry	18.3	19.4	20.7	22.1	22.6	23.0	0.3
Total value of production	204.9	202.8	228.4	230.8	220.1	220.4	0.3
Direct government payments	9.2	7.3	7.3	7.5	12.9	10.2	-2.7
Net farm income	45.5	36.0	53.4	49.8	48.0	44.6	-3.4
Net cash income	54.6	51.8	56.4	60.8	59.1	55.5	-3.6

1998 preliminary; 1999 forecast.
Economic Research Service, USDA

In response to low crop prices, farmers may seek lower rental rates from landlords as rental arrangements are finalized in the first quarter. Some analysts are predicting a significant drop in cash rent rates. Operators may also moderate the amount of crop production inputs.

Farm Balance Sheet To Remain Strong

The viability of the farm economy derives in large part from the financial soundness of the balance sheet. Assets should continue to increase, though at a slower rate than in recent years. Farmers' equity in agricultural assets is projected to increase for the 10th straight year, totaling more than \$900 billion at yearend 1999.

Farm real estate values, which represent the largest component of farm assets, are expected to increase in 1999 (although more modestly than in previous years), reflecting relatively low inflation and borrowing costs. The national rise in farm real estate values reflects the counterbalancing of lower prices in areas where agricultural uses dominate, and rising land prices in areas subject to urban pressure.

Meanwhile, farm debt is expected to decline slightly to \$169.1 billion in 1999, ending 6 years of increases in farm sector

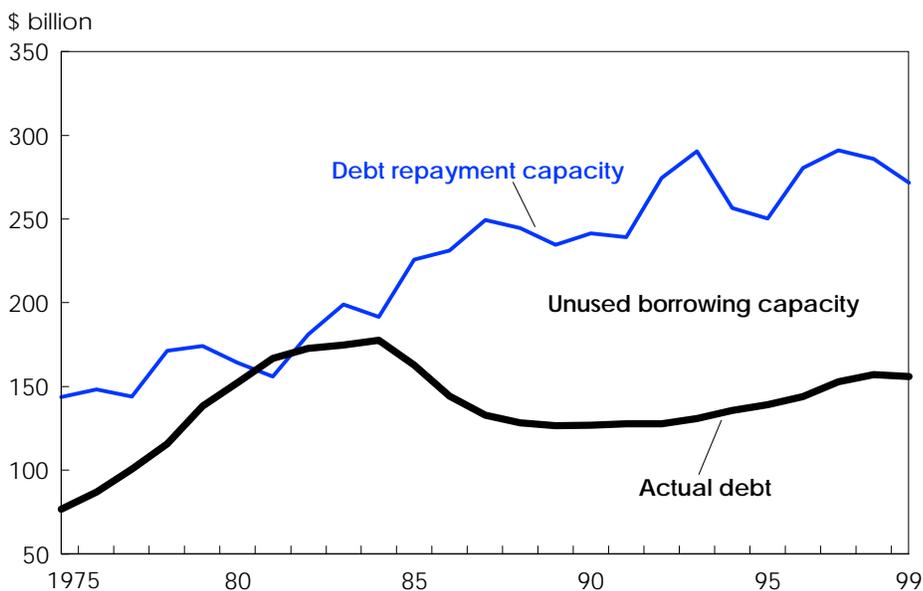
debt. The forecast decline reflects fewer new capital investments financed by debt and a relatively low incidence of farms borrowing their way out of cash flow problems. Adequate levels of working capital and additional government support are also helping to hold down borrowing. Farm debt remains about \$24 billion below its 1984 peak.

Farmers may choose to save a substantial portion of the payments they receive under the recent emergency assistance package in the 1999 Appropriations Act in anticipation of more limited credit availability in the spring. While ample funds are available for lending to creditworthy borrowers, bankers in some regions of the country have indicated that, given the commodity prices that are likely to be used in projecting next season's receipts, some borrowers may have difficulty showing that their operations have a positive cash flow—a requirement for production loans.

Any credit availability gaps may be filled by the increasing number of machinery, seed, and chemical suppliers that have ventured into the lending business. Besides expanding their traditional use of financing as a means to boost product sales, these input suppliers are offering financing to meet farmers' full production credit needs.

In 1999, farmers are expected to use their available credit lines more fully than in recent years. Farmers are expected to use a larger proportion of their debt repayment capacity—the level of debt that could be supported by their current

Unused Borrowing Capacity Remains Substantial For U.S. Farm Operators



1999 forecast.
Economic Research Service, USDA

incomes, based on current bank interest rates and a 7-year repayment period. The proportion used by farmers rose from 45 percent in 1993 to 56 percent in 1995. In 1996, high net cash incomes and lower interest rates reduced debt repayment capacity use to 51 percent, despite a rise in farm business debt. Expected favorable interest rates and reduced debt in 1999 will not be sufficient to offset the effect of lower net cash income; debt repayment capacity use is expected to rise to 55 percent in 1998 and 57 percent in 1999.

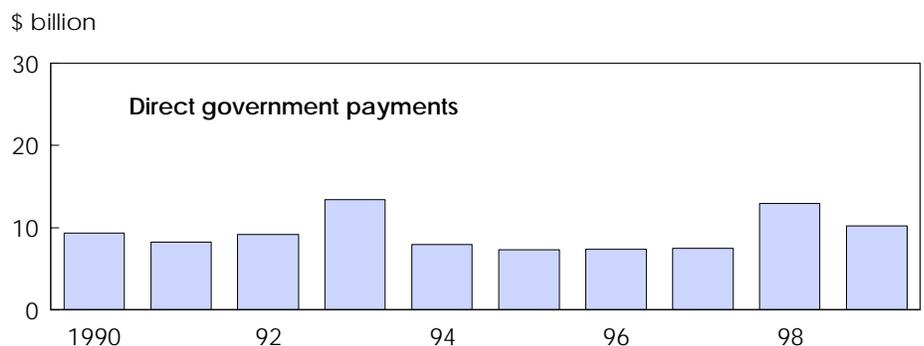
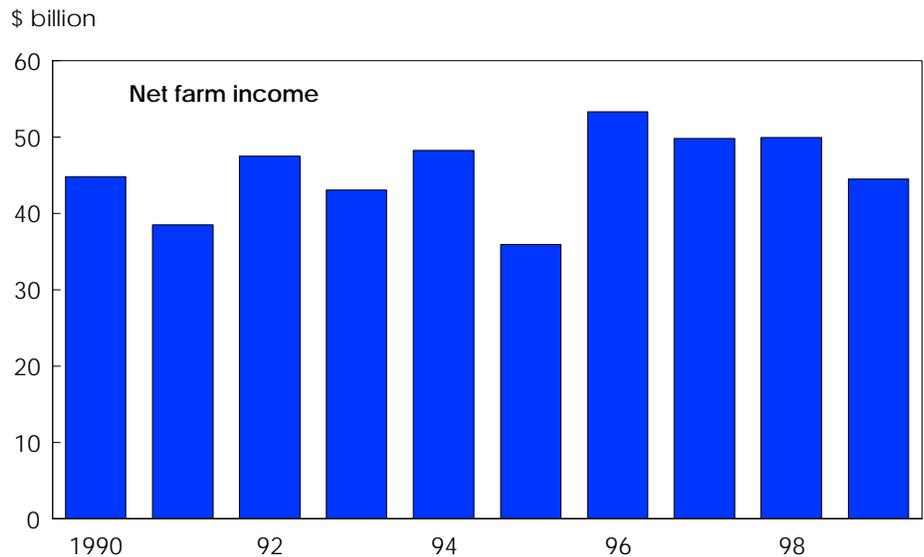
Income Changes, Farm Debt Distributed Unevenly

Most, but not all, financial problems faced by producers in 1999 will be cash flow-related. These cash flow difficulties, however, will reflect different conditions from those in the early 1980's when falling asset values and excessive debt in the farm sector, together with high inflation and interest rates in a fragile general economy, triggered a widespread farm financial crisis. During the farm financial crisis in 1981, 38 percent of available income was used for interest expense, compared with only about 17 percent in both 1998 and 1999.

In 1999, the reduction in debt, coupled with favorable interest rates, is expected to ease the impact of lower income. Total interest expenses are anticipated to decline about 3 percent in 1999. However, it appears that as a group, farm operators will have less income available to meet 1999 principal and interest payments on their loans, and those operators experiencing the greatest reduction in income may experience additional difficulty in meeting debt service requirements in 1999.

In 1998, many farms struggled with cash flow as some regions experienced poor weather and as abundant U.S. and foreign supplies squeezed commodity prices. With supplies projected to continue large,

Government Payments To Bolster Farm Income in 1998 and 1999



1998 preliminary; 1999 forecast.
Economic Research Service, USDA

these farms may get little relief in the form of higher commodity prices in 1999.

Farm operators in the Lake States, Corn Belt, and Northern Plains accounted for almost 48 percent of all farm operator debt at the end of 1997. Almost 28 percent of the debt in these regions was owed by operators reporting sales between \$50,000 and \$250,000, a group consisting mainly of smaller family farm operations. While operations in these size

classes tend to produce commodities currently experiencing low prices (e.g., wheat, corn, and soybeans), they are benefiting from additional government payments authorized in the recent emergency assistance package.

Overall, many farms will enter 1999 with more optimistic prospects than a year earlier. Beef cattle farms and ranches should see increased earnings based on higher prices and a likely drop in expenses. The hog sector, after enduring low prices and industry restructuring, should see some recovery in income. The economic outlook is also favorable for other commodity subsectors such as vegetables, fruits, and cotton.

Access the full Economic Research Service Report on *Agricultural Income and Finance*, including more details on individual commodities.

<http://usda.mannlib.cornell.edu/reports/erssor/economics/ais-bb/1998/>

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Farm Finance

Government Farm Payments for 1998 To Be Decade's Second Highest

New legislation has prompted a substantial increase in expected government payments for 1998 and 1999 over the 1997 level. This includes supplemental support from the Omnibus Consolidated and Emergency Supplemental Appropriations Act for Fiscal Year 1999 signed in October. It also includes the offer to provide farmers 100 percent of their fiscal year 1999 production flexibility contract (PFC) payments before January 1, 1999 under legislation signed into law in August 1998.

USDA projects that these legislative packages combined with payments under the 1996 Farm Act will amount to direct payments of \$12.9 billion to farmers by the end of calendar 1998 and \$10.2 billion in 1999, up from \$7.5 billion in 1997. For the 1990's, government payments exceeded these forecasts only in 1993, when payments totaled \$13.4 billion.

Under the 1996 Farm Act, participants received PFC payments of \$5.7 billion in fiscal year 1998 and will receive \$5.5 billion in fiscal 1999. To estimate calendar year payments, the conventional assumption is that 20 percent of the fiscal year payment is taken before December 31.

The legislation signed in August changed the rules so that farmers could take all of their fiscal 1999 PFC payments in the remaining months of 1998 rather than receiving half in mid-December or mid-January and the rest by September 1999 as provided under the 1996 Farm Act. Some farmers, particularly those in areas affected most by climatic disasters and lower prices for grains and soybeans, are expected to take their entire fiscal 1999 payments in 1998. It is too early to know exactly how much of the fiscal 1999 payment will be requested before yearend, so the analysis assumes that an additional 10-12 percent could be added in 1998. This would

increase PFC payments in calendar 1998 by about \$600 million and reduce calendar 1999 PFC payments by the same amount.

Under the October Appropriations Act, almost \$6 billion of new funding will be injected into the agricultural sector, with about \$5.6 billion expected to be disbursed as direct government payments in 1998 and 1999. Nearly \$2.9 billion will be disbursed as additional payments to farmers based on fiscal 1998 PFC payments before the end of calendar 1998. The bulk of the remaining funding is intended for disaster payments, with most of the disaster component likely to be disbursed in calendar 1999. Assuming that no more than 10 percent of the disaster funds will be disbursed before the end of calendar 1998, about \$3 billion in additional government payments for 1998 and \$2.5 billion for 1999 will be distributed to farmers from this legislation.

Following sharp declines in major crop prices, loan deficiency payments emerged as a significant portion of direct government payments in 1998 (AO October 1998). Farmers can receive the difference between the loan rate (\$1.89 per bushel for corn in 1998, for example) adjusted to local market, and the daily market price, also adjusted to the local market. Once they have taken a loan deficiency payment for an eligible commodity, farmers can no longer place this same crop under a nonrecourse loan. Total loan deficiency payments for 1998 crops were \$1.4 billion as of mid-December.

For more information, see the Farm Service Agency's Background Information: Non-Recourse Marketing Assistance Loans and Loan Deficiency Payments, March 1998, available at <http://www.fsa.usda.gov/pas/publications/facts/nonrec98.pdf>.

Farm Household Income To Rise

In recent years, prosperity in the nonfarm economy has been key in maintaining average farm household income. This year will be no exception to this trend. Despite expected lower income from farming, farm household income should increase in 1999 with a significant contribution from off-farm earnings.

Farm operator household income has averaged about the same as U.S. household income during the past three decades. Farm operator household income averaged \$52,300 in 1997 and is forecast to be about the same—\$51,000 and \$52,000—in 1998 and 1999.

Forecasts of average operator household income are not highly sensitive to fore-

casts of farm income because farm earnings make up only a small share of total operator household income (only 10-17 percent since 1988). In 1977, off-farm wages made up 54 percent of operator household income. Off-farm income can make up such a large portion of farm household income because an establishment qualifies as a farm with only \$1,000 of sales.

For households operating farms with sales of at least \$100,000, earnings from farming make an important contribution to household income. Households operating these farms are affected the most by changes in farm sector income. These larger farms, however, account for only about 15 percent of all family farms.

The remaining 85 percent of family farms fall in the limited-resource, retirement, residential, or lower sales categories and depend on off-farm sources for practically all of their household income. Households operating residential or lower sales small farms rely on off-farm wages or self-employment earnings for most of their income. Operators of limited-resource and retirement farms rely heavily on Social Security and other public programs. (In 1997, about 42 percent of limited-resource farmers reported they were retired.) None of these farm households are affected greatly by changes in farm sector income.

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Resources & Environment



Conservation on Rented Farmland: A Focus on U.S. Corn Production

Does land tenure (ownership vs. leasing) affect a farm operator's adoption of conservation practices? Analysis by USDA's Economic Research Service (ERS) suggests that at least for corn production—which accounted for about one-fifth of all cropland in 1996—the answer is yes. Recent data from the 1996 Agricultural Resources Management Survey (ARMS) indicate that owner-operators are more likely than renters to adopt certain conservation practices for corn production.

With over 40 percent of U.S. farmland leased in 1992 (the most recent year for which national farmland tenure data are available from the Census of Agriculture), including about half of all farmland in Corn Belt states and California, conservation decisions by operators who rent farmland have implications for overall adoption of conservation practices in the U.S. And if a trend toward increased leasing of farmland continues—farmland leasing grew in the U.S. by more than 2 million acres per year between 1982 and 1992—those implications may become even more significant in the future. USDA's Natural Resources Conservation Service (NRCS) estimates that over 200 million acres, or about half of all U.S. cropland, needs

additional conservation treatment in order to maintain productivity.

Noneconomic factors—sensitivity to local water quality problems, for example, or a general attitude toward the environment—play a role in farmers' decisions on whether to adopt conservation practices. Economic factors—such as short-term profitability and long-term asset value—also play a significant role. Renters are likely to be more concerned about short-term profitability of land they rent than about its long-term value, while owner-operators are likely to be concerned with both. So differences between renters and owner-operators in the adoption of conservation practices are probably not surprising.

Differences in farmland leasing arrangements will also likely affect adoption of conservation practices. Farmland leasing in the U.S. commonly takes one of two forms. Cash-renters usually pay all operating expenses, including a fixed cash rental payment to the landlord, and own the crop. Share-renters typically share some operating expenses and the final crop with the landlord. According to the 1988 Agricultural Economics and Land Ownership Survey (AELOS, a follow-on survey to the 1987 Census of Agriculture

and the most recent national data available on use of different leases types), share leases represented 30 percent of all farmland lease contracts in 1988 in the U.S. and about 40 percent of lease contracts in the Corn Belt. AELOS reports that landlords participate more frequently in farm management decisions under share leases than they do under cash leases. The landlord's participation may make share-renters more likely to adopt conservation practices than cash-renters.

Although the analysis in this article focuses on the adoption of selected conservation practices by U.S. corn producers, and although current data limitations constrain the ability to generalize from these results to other commodities and practices, new ARMS data over the next 2 years will permit similar analyses of U.S. wheat and soybean producers. However, analysis of other conservation practices—particularly permanent conservation structures such as terraces—will continue to be limited by incomplete data on such questions as lease duration, landlord participation in conservation decisions, and the establishment date of conservation practices.

Land Tenure & Conservation—Is There a Link?

A wide variety of activities may be considered conservation practices, given their role in providing on-farm or off-farm conservation benefits, including maintaining or improving soil fertility, reducing soil erosion, and reducing runoff of nutrients and pesticides. Among the conservation practices common in corn production are conservation tillage, grassed waterways, contour farming, and strip cropping.

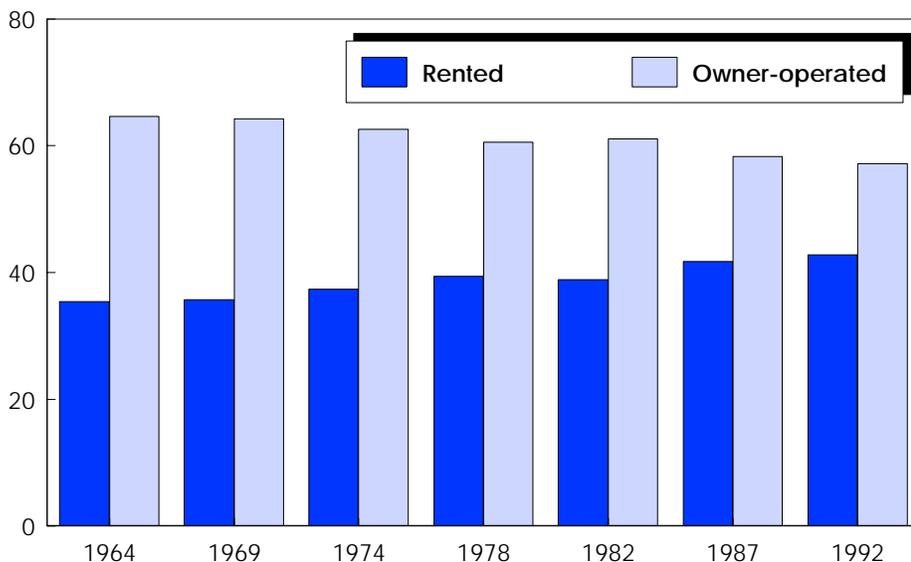
Conservation tillage includes any tillage and planting system that leaves 30 percent or more of the soil surface covered with crop residue to reduce soil erosion by water or, for control of wind erosion, maintains at least 1,000 pounds per acre of flat, small-grain-residue equivalent on the surface throughout the critical wind erosion period.

Grassed waterways are natural or constructed channels covered in suitable vegetation that control erosion and spread the flow of water from the field.

Resources & Environment

A Growing Share of U.S. Farmland Is Rented

Percent of land in farms



Source: U.S. Census of Agriculture.
Economic Research Service, USDA

Contour farming involves preparing land, planting, and cultivating a crop along the contours of a field to reduce erosion, increase water infiltration, and control runoff water.

Strip cropping involves growing different crops in a systematic arrangement of strips across or along the contour of a field to retain runoff for moisture conservation and to reduce soil erosion, increase water infiltration, and thus protect water quality.

Each of these practices provides on-site and off-site benefits over the long term. In addition, conservation tillage may result in short-term profit increases to the farmer because of reduced labor and machinery costs.

For the purposes of studying tenure effects on adoption of conservation practices, USDA's Economic Research Service (ERS) examined 1996 ARMS data on use of conservation practices by U.S. corn producers. The study divided these practices into two categories: those that may provide short-term profits in addition to conservation benefits (conservation tillage) and those that provide benefits only over a longer time period (contour farming, strip cropping, and grassed waterways).

The rates of use of conservation practices that provide short-term profits as well as conservation benefits were expected to be similar among renters and owner-operators, while the rates for practices providing only longer term benefits were expected to be higher for owner-operators. Share-renters, whose landlords were likely to be more involved in management decisions, were considered more likely than cash-renters to adopt practices with long-term benefits.

Summary statistics from ARMS data indicated that essentially the same proportion—31 percent of owner-operators, 28 percent of cash-renters, and 33 percent of share-renters—used conservation tillage. For contour farming, strip cropping, and grassed waterways, 43 percent of owner-operators, 37 percent of cash-renters, and 23 percent of share-renters adopted at least one of those practices.

These statistics, however, are potentially misleading if considered in isolation from other factors that may influence the adoption of conservation practices. Farmers' ages, for example, might affect their inclination to adopt conservation practices, and if one age group is more heavily represented within a tenure type, the effect of

age on practice adoption could be confused with the effect of tenure. To isolate the impact of tenure, the effects of land conditions and of socioeconomic, demographic, and climatic characteristics on the adoption of conservation practices were measured using ARMS data, as well as data on temperature and precipitation.

This analysis indicated younger operators, more highly educated operators, those with a larger percentage of total area in corn and soybeans, and those with larger farms were more likely than other farmers to use conservation tillage, as were farmers with land designated as highly erodible. The potential for significant time savings and lower machinery costs encourages adoption by larger farms; time savings may not be as critical for smaller operations. Farmers with improved drainage on their land were less likely to use conservation tillage—fields benefiting from drainage improvements would most likely have soils and topographic characteristics that are less well suited to the use of conservation tillage.

Younger farmers, those with less acreage, and those with a smaller percentage of farm area in corn or soybeans were more likely to use at least one of the conservation practices with longer term benefits (contour farming, strip cropping, and grassed waterways). A highly erodible land (HEL) designation as well as high levels of precipitation and cool temperatures also tended to encourage use of these three practices. Small farm operators who had an occupation other than farming, were retired, or had gross sales under \$100,000 and total farm assets under \$150,000 were less likely to use any of the conservation practices analyzed.

Controlling for these non-tenure factors allowed isolation of tenure's effect on adoption of conservation practices. The analysis found that cash-renters were significantly less likely than owner-operators to use conservation tillage, while share-renters behaved much like owner-operators in conservation tillage practices. Both share-renters and cash-renters were significantly less likely than owner-operators to adopt at least one of the practices with longer term benefits.

Farmers' participation in government programs was also considered as a possible factor affecting the use of conservation practices. Under the conservation compliance provision established in the 1985 Farm Act, farmers with HEL are required to implement approved soil conservation practices in order to receive some USDA program benefits. This requirement provides policy makers some leverage to encourage farmers to adopt conservation practices.

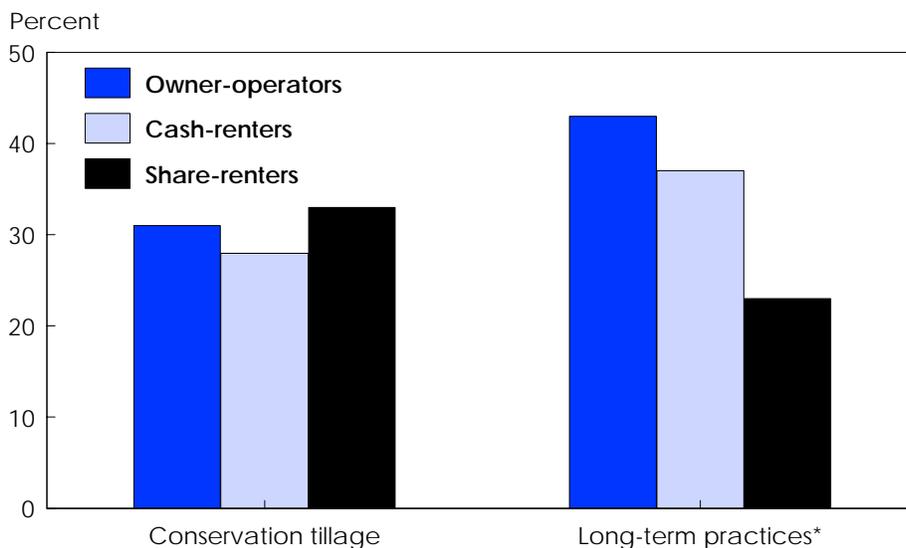
However, it is difficult to statistically disentangle the interaction of program participation and farming of HEL—most farmers in the ARMS sample who cultivated HEL also received payments through USDA programs and were thus subject to conservation compliance. This made it impossible to distinguish the effect of program participation (i.e., the compliance requirement) on adoption of conservation practices from the effect of HEL designation alone.

Implications for the Future

These findings on the effects of tenure on conservation practices may have implications for resource use and environmental quality in U.S. agriculture, since NRCS estimates that half of U.S. cropland still needs additional conservation treatment in order to maintain productivity and more than half of U.S. farmland in key agricultural regions is now leased. Moreover, the Census of Agriculture indicates that a large and increasing proportion of farm landlords are neither engaged in nor retired from any agricultural activity, and that disengagement from farming tends to increase the use of cash leases—the percentage of farmland rented under cash leases has risen in recent decades.

As the current farm population ages, historic increases in leasing and in farmland

More Than 40 Percent of Owner-Operators Adopt Longer Term Conservation Practices



*Includes contour farming, strip cropping, and grassed waterways.

Source: 1996 Agricultural Resource Management Survey. Based on a subsample of 941 corn producers.

Economic Research Service, USDA

ownership by nonfarmers will likely continue, while factors such as provisions of the 1996 Farm Act could also be changing leasing patterns. The 1997 Census of Agriculture, for which data are expected in 1999, and a follow-on survey of agricultural landowners being considered for 2000, will be helpful in determining whether historic farmland tenure patterns are continuing. If they are, this analysis suggests that adoption of conservation practices may be lower in the future than otherwise expected, if renters continue to adopt such practices at lower rates.

While this research has analyzed adoption of conservation practices as a private choice based on farmers' maximization of private net returns, the adoption of these practices also provides public benefits in

the form of moderation of downstream water flows, provision of wildlife habitat, and improved water and air quality. But public leverage to encourage adoption of conservation practices through conservation compliance requirements may diminish as the incentive to participate in farm programs declines with the level of program payments under the 1996 Farm Act. With such changes, identifying the effects of land tenure on adoption of different conservation practices may become increasingly important.

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Special Article

Transportation Technology Eases the Journey For Perishables Going Abroad

Perishable agricultural products, many of which U.S. farmers could only have dreamed of selling abroad just 10 years ago, now account for about 20 percent—a growing share—of total U.S. food and agricultural exports.

Income growth overseas and accompanying changes in food preferences and diets are most often cited as drivers behind the more-than-decade-long shift in U.S. agricultural exports from bulk commodities (e.g., wheat and soybeans) to nonbulk items (e.g., meats and fruit). While income growth and some policy measures to liberalize trade are key determinants in the rise of perishable shipments, advances in transportation technology are equally important. For U.S. agriculture to benefit from growing overseas demand for, say, fresh asparagus, shippers must be able to deliver perishable products to purchasers thousands of miles away with no substantial loss in freshness and quality.

For many producers, marketing prime-quality perishable products abroad was largely infeasible or prohibitively expensive until new technologies were developed during the last 30 years. Packaging innovations, fruit and vegetable coatings, bio-engineering, and other techniques that reduce deterioration of food products have helped shippers extend the marketing reach of U.S. perishable products. In addition, new technologies in transport are gradually opening the ocean trades to a host of perishable products. As a result, U.S. exports of horticultural products now travel much greater distances than before.

Outside North America, markets for U.S. perishable products are concentrated in high-income Asian countries and to a lesser extent in Europe. Beef and pork produced in the U.S. Midwest is chilled or frozen in regional packing houses, moved overland to west coast ports, and shipped by sea to Japan and South Korea. Fresh broccoli goes by ship from California to Japan, and fresh cherries travel the ocean from Washington State. Perishable products as fragile as avocados, lettuce, mangoes, and nectarines are increasingly transported by sea to Asia and Europe from the U.S. and from other suppliers like Mexico and Chile.

Trans-ocean transportation costs are still much higher for many perishable products than for raw agricultural products like cotton or nonperishable products like nuts and raisins. However, new developments in ocean shipping have made it possible to preserve the quality of perishables during transport and still bring down transportation costs. For example, successfully shifting perishable product exports from air to ocean transport can reduce transportation costs by as much as 75 percent.

In addition, satellite technologies, particularly global positioning systems (GPS), which are becoming increasingly available and less expensive, enable shippers to follow their cargo around the world electronically. Sitting at computer terminals, they can monitor quality, reduce risk (and costs) of liability claims, and



Port of Charleston, SC

shorten cargo retrieval time. Profitability of perishable product trade will likely increase further as ocean shipping technologies continue to adapt to the requirements of horticultural products and as shipping lines expand use of these technologies.

U.S. exports of perishable products increased from \$3.5 billion in FY 1989 to \$10.7 billion in FY 1998. Meats accounted for about half of perishable exports in FY 1998 and fresh fruit and vegetables about one-fourth. Other countries—and U.S. consumers—also benefited from improving transportation technology, as the U.S. imported \$11.7 billion of perishable products in FY 1998, with horticultural products (including fresh vegetables, fruit and juice, bananas, cut flowers, and nursery stock) accounting for 60 percent.

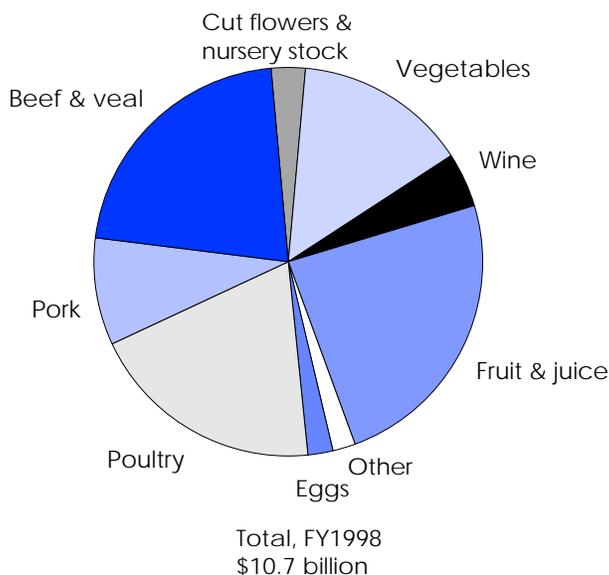
A Boost for Ocean Shipping—Containers & Cold Chills

The high cost of loading and unloading is one reason transportation costs tend to decline with distance. The revolution in perishable product shipping technology began with a simple idea called containerization—handling standardized containers filled with cargo, rather than handling the cargo itself. Containerization led to a radical change in global shipping practices known as intermodalism—moving goods by linking two or more modes of travel.

Containerization is recognized as a major contributor to the steady reduction in world transportation costs since the 1950's.

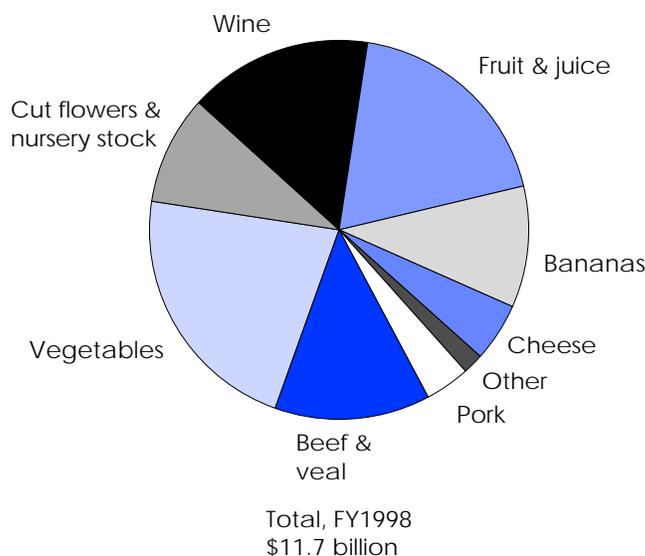
Special Article

Meats Top List of U.S. Perishable Exports . . .



Economic Research Service, USDA

. . . While Fruit and Vegetables Dominate Imports



For perishable products, however, the increased speed of handling and reduced transport costs that came with containerization were not enough. Ocean transport of cooled and frozen cargo received a substantial boost with development of mobile refrigerated containers called “reefers” in the 1960’s.

Reefers, like regular containers, are 20-foot or 40-foot boxes with their own refrigeration units. Reefers can be carried alongside general, nonchilled containers, an advantage that has challenged the competitiveness of conventional, dedicated refrigerated cargo ships that lack this flexibility.

The reefer share of containerized cargo is now about 9 percent and accounts for about 20 million tons of cargo annually. Although deep-freeze and dedicated refrigerated vessels are also important for perishable product trade—especially in carrying palletized chilled hardy fruit such as apples, peaches, pears, grapes, kiwifruit, citrus, and bananas—the reefer container trade is growing more rapidly and is considered better suited to carrying the hardy fruits as well as produce needing more careful handling, like asparagus.

Increasingly efficient and accurate cooling systems have allowed refrigerated carriers to maintain temperatures with great accuracy (plus or minus a quarter degree Celsius) for some time. More recently, however, controlled atmosphere (CA) technologies added refinements that have extended the shelf life of perishable products and thus expanded the types of perishables that can be shipped in reefers without spoilage.

CA technologies allow operators to lower the respiration rate of produce by monitoring and adjusting oxygen, carbon dioxide,

and nitrogen levels within a reefer. In this way, CA can slow ripening, retard discoloration, and maintain freshness of super-sensitive perishables like lettuce, asparagus, peaches, mangoes, and avocados that would not survive well during ordinary refrigerated ocean transport.

Not all CA systems are the same: some especially sophisticated ones are combined with systems to maintain relative humidity, a crucial factor for some produce such as grapes. In addition, remote reefer monitoring systems can transmit and collect performance information electronically so that physical checks are not required while the reefer is stacked in the hold or on a dock. The remote system may also activate an alarm, helping minimize losses when problems arise at sea or in the container yard.

Transportation & Trade Workshop

USDA’s Economic Research Service is sponsoring a workshop to identify research needs and priorities in the transportation sector.

Technological and Structural Change in the Transportation Sector: Impacts on the Future of U.S. Food and Agriculture Trade

When: March 17-18, 1999

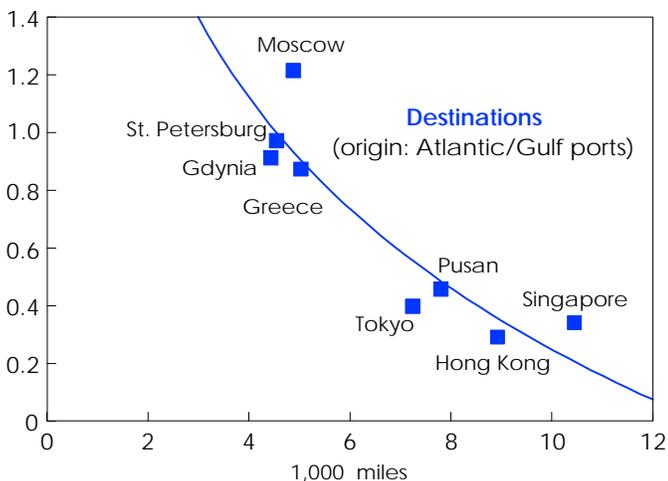
Where: Washington, DC

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Special Article

Per-Mile Shipping Costs Decline With Distance for Container Loads of U.S. Frozen Poultry

\$ per mile per container



Source: *Ocean Rate Bulletin* October 28, 1998, Agricultural Marketing Service, USDA.

Economic Research Service, USDA

Container Ship Technology Keeps Pace

Accompanying advances in containerization has been change in container ship technology. Container vessels are being built larger and larger, making them more competitive with traditional refrigerated vessels. Increasing cargo capacity generally leads to lower per-unit costs.

In the 1970's, container ships on the world's major trade routes were built to carry an average of about 2,500 TEU's (standard containers with exterior dimensions measuring 20 feet by 8 feet by 8 feet). New vessels deployed on major routes are often 5,000-6,000 TEU's. Per-container vessel operating costs are about 50 percent lower for a current 5,000-TEU ship compared with a 2,500-TEU vessel.

The challenge, however, is to increase capacity while maintaining stability and safety—particularly important for ships carrying tall stacks of containers. New hull shapes and ballasting systems improve stability at sea, while bow thrusters make these large vessels more maneuverable in port than their smaller predecessors.

The largest container ship now in service, the *Sovereign Maersk* (built and registered abroad), is estimated by industry analysts to have capacity upwards of 6,600 TEU's, including space for over 800 refrigerated TEU's. The refrigerated capacity alone makes the gigantic *Sovereign Maersk* equivalent to a medium-sized conventional refrigerated carrier. Vessels of this size are expected to become more common—and ships may get even larger. As a result, container ships are expected to increase market penetration at the expense of conventional refrigerated carriers, especially in the major trans-Atlantic and trans-Pacific trades.

At the same time, the conventional refrigerated shipping industry is not standing still. New ship designs allow more rapid loading and discharge, with forklifts moving throughout the holds. Onboard cooling plants have become highly efficient. The industry is concentrating into fewer and larger firms to increase efficiency, and vessel pooling arrangements help companies utilize capacity more effectively. Some refrigerated carriers can now carry loads of containers on deck, and operators are increasingly using their refrigerated vessels to carry other cargoes, such as autos and palletized machinery, on a seasonal basis, which helps even out earnings for carriers.

Although it is likely that container ships will dominate the perishable trade between North America, East Asia, and Europe, conventional refrigerated vessels can serve many smaller ports, especially in the developing world, that are unable to handle large container vessels. Thus, in north-south trade and in certain niche markets, conventional refrigerated ships may have a brighter future, but even here, competition from container vessels is bound to increase as costs decline.

Constraints on Shipping Perishable Products Remain

Despite tremendous progress in adapting shipping technology to the marketing of perishables, there remain significant constraints to the expansion of perishable product trade. Some constraints derive from economic and environmental issues associated with the technologies.

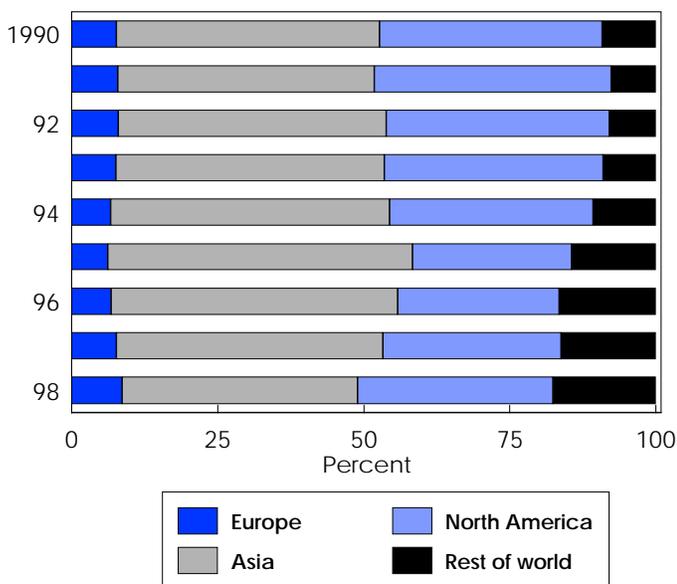
New Technology May Protect the Planet As Well As Produce

Controlled atmosphere (CA) technology, now used primarily in shipping highly sensitive perishables, may develop as one substitute for chemical treatment of agricultural products during shipping. A number of companies are working collaboratively with USDA to investigate more environmentally friendly technologies to eradicate insects that harm fruit, vegetables, feed, and wood products.

For example, methyl bromide is a broad-spectrum pesticide, used primarily as a soil fumigant but also as a fumigant for commodities entering or leaving the U.S. Because of concerns about methyl bromide's high toxicity and ozone-damaging properties, production and importation of the pesticide is scheduled to be phased out by January 1, 2005 under terms of the Montreal Protocol, an international treaty to protect the earth from ozone-depleting substances. However, the treaty exempts preshipment and quarantine uses of methyl bromide.

EPA, working closely with USDA, state agriculture departments, and other stakeholders, will define preshipment and quarantine uses that will be exempted from the phaseout. CA systems that kill insects with low temperatures and a mixture of naturally occurring gases could become one of several effective substitutes for methyl bromide treatment.

Asia Is Still the Leading Market for U.S. Perishable Exports



1998 forecast.
Economic Research Service, USDA

First, CA technologies, particularly some of the more complex systems, are expensive for carriers to adopt and install, especially at a time when shipping rates are low and exporters are still undecided whether a potentially higher price in foreign markets justifies the premium they pay for shipping via CA. Although continued technological refinements and developments and increasing competition among manufacturers of CA systems are bringing investment costs down, much of the CA reefer trade is seasonal (timed, for example, to the fruit harvest) and therefore particularly vulnerable to income swings. The reefer business can be very profitable because of the high value of the cargo, but some industry analysts believe that the CA reefer trade, while continuing to grow, will remain a niche market.

Some questions also remain as to how international environmental agreements and national environmental regulations will affect the availability of economical and environmentally friendly refrigerants for reefer systems. Chlorofluorocarbon compounds (CFC's), the predominant refrigerants used in reefer containers, are being phased out under the terms of the 1990 Montreal Protocol international treaty because of their damaging effect on the ozone layer.

The most popular replacements for CFC's are hydrochlorofluorocarbons compounds (HCFC's), which have limited ozone depletion potential. However, HCFC's are expected to be phased out in favor of hydrofluorocarbons (HFC's), which have zero ozone depletion potential but some global warming potential. The Kyoto Agreement on climate change, while not presently ratified, suggests the possibility of bans or caps on these "greenhouse" gases. If proposed restrictions on HFC's become a real-

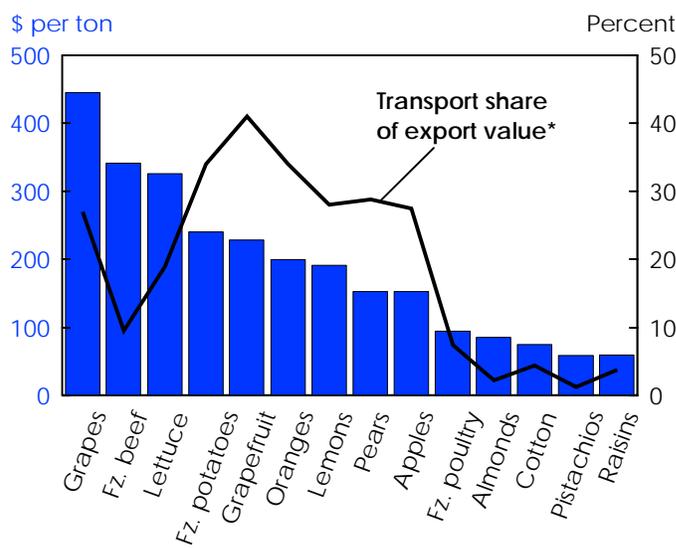
ity, refrigerated shipping will face serious challenges in finding acceptable substitutes.

Hydrocarbons, such as propane or butane, are a possibility, but these are flammable. Ammonia systems using cooled brine, which were common before the adoption of Freon (a CFC) in the late 1970's, may be adapted to address environmental concerns. Although new ammonia-brine systems are attractive, ammonia is hazardous and brine is quite corrosive and difficult to pump. Ammonia systems that use carbon dioxide as a secondary refrigerant may hold greater long-term promise.

Perhaps most critical to expansion of perishable trade are infrastructure linkages to make ocean shipping of perishable products not only technologically feasible but also profitable for all the players. Reefer container trade requires that ports on both ends provide sufficient crane capacity, adequate storage space, and ready access to highway and rail systems designed for container traffic. Efficient inspection and customs services by government agencies, as well as port-to-market distribution systems, are critical since most fresh produce must arrive on store shelves within 24 hours of unloading.

How many ports worldwide currently have the necessary infrastructure and the necessary links to internal markets to handle large volumes of reefer container trade? Although there are many "containerports," container traffic and traffic growth are clearly concentrated around the largest few. Of the top 100 containerports in 1997, 10 accounted for more than 45 percent of all container throughput.

Shipping Costs From California to Japan Vary By Commodity



Rates for June 1998. Shares based on export unit values for January-August 1998. Destination for apples and pears is Hong Kong.
*F.o.b. value of commodity.
Source: Agricultural Marketing Service, USDA
Economic Research Service, USDA

Special Article

Impatience Begets Innovation

Malcolm McLean, founder of Sea-Land, the largest U.S.-based ocean carrier, made a major contribution to the technology of perishable product shipping. In 1937, he waited on a dock in Hoboken, New Jersey with a ship-bound truckload of North Carolina cotton. For hours he observed the complicated, labor-intensive process of goods being unloaded from trucks, moved onto the ship, and juggled into their proper places in the hold. As the story goes, he wondered why his truck trailer could not simply be lifted up and placed on the deck of the ship without its contents being touched.

McLean made his idea a reality in 1956 when he purchased a small tanker company, adapted the ships to carry trailers, and launched the Ideal X from Port Newark in the New York harbor. When he later converted from conventional truck trailers to specially engineered steel boxes that could be stacked several deep inside the hold, he had launched the era of the cargo container. In 1966, one of his new container ships crossed the Atlantic to Rotterdam, launching the first trans-Atlantic and later trans-Pacific containerized shipping service.

By far the largest throughput is handled at ports in Hong Kong and Singapore (each with 10 percent of 1997 container throughput), followed by Kaohsiung in Taiwan and Rotterdam in the

Netherlands, each with less than half the volume of the largest two ports. In the U.S., the five leading container ports (Long Beach, Los Angeles, New York/New Jersey, San Juan, and Oakland) together accounted for 9 percent of world container throughput. Although these figures mean little in terms of the ability of other ports to respond to growing consumer demand for perishable products, they do suggest a challenge to the diversification of perishable product trade beyond major, high-income markets.

What lies behind the rapid growth in U.S. exports of perishable products over the past 10 years? The general decline in trade barriers, such as tariffs and import quotas, and worldwide income growth play major roles. But the contribution made by advances in transportation technology, particularly in ocean shipping, tends to be ignored. These advances have extended the marketing reach of U.S. perishable high-value products to distant markets by reducing delivery times, maintaining product quality, and reducing costs.

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The next issue of *Agricultural Outlook*
will appear in March

Statistical Indicators

Summary Data

Table 1—Key Statistical Indicators of the Food & Fiber Sector

				1998				1999		
	1997	1998 F	1999 F	I	II	III	IV	I	II	III
Prices received by farmers (1990-92=100)	107	--	--	102	107	--	--	--	--	--
Livestock & products	98	--	--	94	96	--	--	--	--	--
Crops	115	--	--	110	112	--	--	--	--	--
Prices paid by farmers (1990-92=100)						--	--	--	--	--
Production items	117	--	--	115	114	--	--	--	--	--
Commodities and services, interest, taxes, and wages	117	--	--	117	117	--	--	--	--	--
Cash receipts (\$ bil.) ¹	209	198	198	49	43	48	58	47	43	49
Livestock	97	93	96	23	23	24	24	23	23	25
Crops	112	105	102	26	21	24	34	23	20	24
Market basket (1982-84=100)										
Retail cost	160	--	--	162	162	163	--	--	--	--
Farm value	106	--	--	102	104	103	--	--	--	--
Spread	189	--	--	194	194	195	--	--	--	--
Farm value/retail cost (%)	23	--	--	23	22	22	--	--	--	--
Retail Prices (1982-84=100)										
All food	157	161	163	160	160	161	162	163	164	164
At home	158	161	163	160	160	161	162	163	164	163
Away from home	157	161	165	160	161	162	163	164	165	166
Agricultural exports (\$ bil.) ²	57.3	53.6	50.5	16.3	14.3	12.1	11.1	13.9	13.4	11.8
Agricultural imports (\$ bil.) ²	35.8	37.0	38.5	9.2	9.8	9.4	8.7	10.2	9.6	9.5
Commercial production										
Red meat (mil. lb.)	43,209	45,123	43,963	11,038	11,015	11,380	11,690	10,919	10,813	11,111
Poultry (mil. lb.)	33,258	33,556	35,020	8,258	8,453	8,370	8,475	8,435	8,870	8,910
Eggs (mil. doz.)	6,460	6,625	6,790	1,637	1,635	1,653	1,700	1,665	1,675	1,700
Milk (bil. lb.)	156.6	157.4	160.1	39.2	40.9	38.7	38.7	39.8	41.5	39.5
Consumption, per capita										
Red meat and poultry (lb.)	208.6	215.4	215.0	51.7	52.3	54.0	57.3	52.5	53.1	54.3
Corn beginning stocks (mil. bu.) ³	425.9	883.2	1,307.8	883.2	7246.8	4,939.9	3,039.8	1,307.8	--	--
Corn use (mil. bu.) ³	8,849.5	8,949.7	9,430.0	3,004.2	2,307.8	1,903.7	1,734.0	3,133.4	--	--
Prices ⁴										
Choice steers--Neb. Direct (\$/cwt)	66.32	61.84	69-75	61.73	64.16	58.97	62-63	67-71	72-78	69-75
Barrows and gilts--IA, So. MN (\$/cwt)	51.36	32.24	32-34	34.74	39.42	33.30	21-22	30-32	33-35	36-38
Broilers--12-city (cents/lb.)	58.80	62.80	56-60	56.40	61.00	70.40	63-64	57-59	57-61	58-62
Eggs--NY gr. A large (cents/doz.)	81.20	76.10	70-75	79.00	66.50	76.00	82-83	73-77	62-68	67-73
Milk--all at plant (\$/cwt)	13.34	15.35- 15.45	14.20- 15.00	14.60	13.73	15.37	17.75-	16.85- 17.35	13.10- 13.90	12.60- 13.60
Wheat--KC HRW ordinary (\$/bu.)	4.16	3.27	--	3.62	3.32	2.86	--	--	--	--
Corn--Chicago (\$/bu.)	2.78	2.41	--	2.72	2.49	2.03	--	--	--	--
Soybeans--Chicago (\$/bu.)	7.63	--	--	6.95	6.68	6.39	6.75	--	--	--
Cotton--avg. spot 41-34 (cents/lb)	69.89	--	--	67.64	64.48	66.86	72.60	--	--	--
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Farm real estate values ⁵										
Nominal (\$ per acre)	668	683	703	713	736	782	832	890	945	1000
Real (1982 \$)	539	528	521	507	511	529	550	574	598	620

F = Forecast. -- = Not available. 1. Quarterly data seasonally adjusted at annual rates. 2. Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3. Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports and domestic disappearance. 4. Simple averages, Jan.-Dec. 5. 1990-98 values as of January 1. 1989 values as of February 1.

U.S. & Foreign Economic Data

Table 2—U.S. Gross Domestic Product & Related Data

	1997							1998		
	1995	1996	1997	I	II	III	IV	I	II	III
<i>Billions of current dollars (quarterly data seasonally adjusted at annual rates)</i>										
Gross Domestic Product	7,265.4	7,636.0	8,110.9	7,933.6	8,063.4	8,170.8	8,254.5	8,384.2	8,440.6	8,538.6
Gross National Product	7,287.1	7,674.0	8,102.9	7,952.4	8,062.3	8,162.0	8,234.9	8,369.4	8,421.8	--
Personal consumption expenditures	4,957.7	5,207.6	5,493.7	5,405.7	5,438.8	5,540.3	5,593.2	5,676.5	5,773.7	5,846.2
Durable goods	608.5	634.5	673.0	658.4	659.9	681.2	682.2	705.1	720.1	718.8
Nondurable goods	1,475.8	1,534.7	1,600.6	1,587.4	1,588.2	1,611.3	1,613.2	1,633.1	1,655.2	1,669.9
Food	735.1	756.1	780.9	775.5	775.8	785.3	787.1	796.9	810.2	818.3
Clothing and shoes	254.7	264.3	278.0	275.2	275.6	280.9	280.7	291.0	295.3	293.8
Services	2,873.4	3,038.4	3,220.1	3,159.9	3,190.7	3,247.9	3,297.8	3,338.2	3,398.4	3,457.5
Gross private domestic investment	1,038.2	1,116.5	1,256.0	1,193.6	1,259.9	1,265.7	1,292.0	1,366.6	1,345.0	1,362.2
Fixed investment	1,008.1	1,090.7	1,188.6	1,127.5	1,176.4	1,211.1	1,220.1	1,271.1	1,305.8	1,304.1
Change in business inventories	30.1	25.9	67.4	66.1	83.5	54.6	71.9	95.5	39.2	58.0
Net exports of goods and services	-86.0	-94.8	-93.4	-98.8	-86.8	-94.7	-98.8	-123.7	-159.3	-160.8
Government consumption expenditures and gross investment	1,355.5	1,406.7	1,454.6	1,433.1	1,451.5	1,459.5	1,468.1	1,464.9	1,481.2	1,491.0
<i>Billions of 1992 dollars (quarterly data seasonally adjusted at annual rates) ¹</i>										
Gross Domestic Product	6,742.1	6,928.4	7,269.8	7,101.6	7,236.5	7,311.2	7,364.6	7,464.7	7,498.6	7,570.0
Gross National Product	6,779.5	7,008.4	7,266.2	7,167.8	7,239.3	7,307.0	7,350.7	7,455.2	7,485.9	--
Personal consumption expenditures	4,595.3	4,714.1	4,913.5	4,818.1	4,872.7	4,947.0	4,981.0	5,055.1	5,130.2	5,181.9
Durable goods	583.6	611.1	668.6	637.8	653.8	679.6	684.8	710.3	729.4	733.6
Nondurable goods	1,412.6	1,432.3	1,486.3	1,457.8	1,477.1	1,495.7	1,494.3	1,521.2	1,540.9	1,548.9
Food	690.5	689.7	699.3	694.6	697.3	700.6	699.9	706.8	716.3	718.5
Clothing and shoes	257.5	267.7	288.4	277.1	283.3	291.9	292.3	307.4	311.4	310.0
Services	2,599.6	2,671.0	2,761.5	2,723.9	2,743.6	2,775.4	2,804.8	2,829.3	2,866.8	2,905.0
Gross private domestic investment	991.5	1,069.1	1,206.4	1,149.2	1,211.3	1,215.8	1,241.9	1,321.8	1,306.5	1,330.3
Fixed investment	962.1	1,041.7	1,138.0	1,079.0	1,127.0	1,159.3	1,169.5	1,224.9	1,264.1	1,268.7
Change in business inventories	27.3	25.0	63.2	63.7	79.0	51.0	66.5	91.4	38.2	56.6
Net exports of goods and services	-98.8	-114.4	-136.1	-126.3	-131.6	-142.4	-149.0	-198.5	-245.2	-253.9
Government consumption expenditures and gross investment	1,251.9	1,257.9	1,285.0	1,260.5	1,284.4	1,288.9	1,289.2	1,283.0	1,294.8	1,300.0
GDP implicit price deflator (% change)	2.3	1.9	1.9	2.8	1.6	1.2	1.2	0.8	0.9	0.8
Disposable personal income (\$ bil.)	5,277.0	5,534.7	5,795.1	5,711.2	5,767.9	5,821.8	5,879.4	5,937.1	5,988.9	6,042.4
Disposable per. income (1992 \$ bil.)	4,906.0	5,043.0	5,183.1	5,130.8	5,167.5	5,198.4	5,235.8	5,287.1	5,321.5	5,356.0
Per capita disposable pers. income (\$)	20,050	20,840	21,633	21,391	21,558	21,709	21,871	22,046	22,192	22,336
Per capita disp. pers. income (1992 \$)	18,640	18,989	19,349	19,217	19,315	19,385	19,478	19,632	19,719	19,799
U.S. resident population plus Armed Forces overseas (mil.) ²	263.0	265.5	267.9	266.9	267.5	268.1	268.9	269.3	269.9	270.5
Civilian population (mil.) ²	261.4	263.9	266.4	265.4	266.0	266.6	267.3	267.8	268.4	269.0
<i>Monthly data seasonally adjusted</i>										
	1995	1996	1997	1997	1997	1997	1998	1998	1998	1998
				Sep	Apr	May	Jun	Jul	Aug	Sep
Total industrial production (1992=100)	116.0	120.2	127.0	128.0	131.6	131.7	130.0	129.5	131.9	131.3
Leading economic indicators (1992=100)	100.8	102.0	103.8	104.3	105.3	105.2	105.0	105.5	105.5	105.5
Civilian employment (mil. persons) ³	124.9	126.7	129.6	129.8	131.4	131.5	131.2	131.1	131.2	131.8
Civilian unemployment rate (%) ³	5.6	5.4	4.9	4.9	4.3	4.3	4.5	4.5	4.5	4.6
Personal income (\$ bil. annual rate)	6,072.1	6,425.2	6,784.0	6,850.1	7,055.3	7,085.9	7,104.4	7,131.8	7,161.4	7,173.5
Money stock-M2 (daily avg.) (\$ bil.) ⁴	3,651.2	3,826.1	4,045.8	3,979.3	4,167.2	4,177.5	4,196.1	4,213.2	4,243.1	4,295.5
Three-month Treasury bill rate (%)	5.51	5.02	5.07	4.97	5.00	5.03	4.99	4.96	4.94	4.74
AAA corporate bond yield (Moody's) (%)	7.59	7.37	7.27	7.15	6.69	6.69	6.53	6.55	6.52	6.40
Total housing starts (1,000) ⁵	1,354.1	1,476.8	1,474.0	1,501	1,546	1,538	1,620	1,704	1,616	1,576
Business inventory/sales ratio ⁶	1.43	1.40	1.38	1.37	1.39	1.39	1.38	1.38	1.39	--
Sales of all retail stores (\$ bil.) ⁷	2,346.3	2,465.1	2,546.3	215.8	222.7	225.5	225.6	224.2	224.3	225.1
Nondurable goods stores (\$ bil.)	1,405.6	1,457.8	1,505.4	126.9	129.3	130.4	130.3	131.0	131.0	131.1
Food stores (\$bil.)	408.4	424.2	432.1	36.1	36.6	36.8	36.9	37.0	37.2	37.2
Apparel and accessory stores (\$ bil.)	109.5	113.0	116.8	9.9	10.5	10.4	10.3	10.5	10.4	10.1
Eating and drinking places (\$ bil.)	239.9	238.4	244.1	19.9	20.3	20.5	20.5	20.4	20.4	20.7

-- = Not available. 1. In April 1996, 1992 dollars replaced 1987 dollars. 2. Population estimates based on 1990 census. 3. Data beginning January 1994 not directly comparable with data for earlier periods because of a major redesign of household survey questionnaire. 4. Annual data as of December of year listed. 5. Private, including farm. 6. Manufacturing and trade. 7. Annual total. *Information contact: David Johnson (202) 694-5324*

Table 3—World Economic Growth

	Calendar year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	<i>Real GDP, annual percent change</i>									
World	2.6	1.9	1.9	1.6	3.2	2.8	3.4	3.4	1.9	1.7
less U.S.	3.1	3.0	1.6	1.3	3.0	2.9	3.4	3.2	1.3	1.7
Developed Economies	2.7	1.8	1.6	0.8	2.8	2.2	2.8	2.8	2.0	1.5
less U.S.	3.5	3.2	1.0	0.0	2.4	2.1	2.5	2.2	1.1	1.4
United States	1.2	-0.9	2.7	2.3	3.5	2.3	3.4	3.9	3.5	1.7
Canada	0.2	-1.9	0.9	2.5	3.9	2.2	1.2	3.7	2.8	2.5
Japan	5.1	3.8	1.0	0.3	0.7	1.4	4.1	0.8	-2.8	-0.3
Australia	1.5	-0.7	2.4	3.9	5.5	3.5	3.7	3.3	3.5	2.8
European Union	3.1	3.7	1.0	-0.6	3.0	2.4	1.7	2.7	2.8	2.1
Transition Economies	-4.2	-6.9	-11.2	-6.5	-8.8	-1.5	-2.2	1.0	-2.3	-7.3
Eastern Europe	-6.3	-10.6	-4.0	0.8	3.5	5.5	3.1	1.7	2.4	2.3
Poland	-10.8	-6.3	2.0	3.8	4.2	7.1	5.9	7.0	5.9	4.5
Former Soviet Union	-3.5	-5.5	-13.7	-9.3	-13.9	-5.1	-5.1	0.5	-5.3	-13.8
Russia	-3.0	-5.0	-14.5	-8.7	-12.6	-4.1	-4.9	0.8	-5.8	-15.0
Developing Economies	3.8	4.8	6.3	6.2	6.7	5.7	6.4	5.8	2.1	3.1
Asia	5.8	6.6	8.9	8.7	9.4	8.6	8.0	6.7	2.1	4.2
East Asia	5.1	8.7	10.8	10.6	10.7	9.3	8.4	7.8	4.4	6.1
China	3.8	9.3	14.2	13.5	12.6	10.5	9.6	8.8	7.4	7.6
Taiwan	5.4	7.5	6.8	6.3	6.5	6.0	5.7	6.8	5.0	4.4
Korea	9.5	9.2	5.1	5.8	8.8	8.7	7.1	5.5	-5.7	2.2
Southeast Asia	8.2	6.8	6.9	7.4	8.1	8.5	7.5	4.8	-6.7	-1.7
Indonesia	8.9	8.9	7.2	7.2	7.5	8.2	8.0	4.7	-14.7	-6.9
Malaysia	9.7	8.8	7.8	8.4	9.4	9.5	8.0	7.8	-6.6	-0.6
Philippines	2.7	-0.2	0.3	2.1	4.4	4.8	5.7	5.1	-0.1	-1.3
Thailand	11.7	8.0	8.1	8.3	8.8	9.2	6.4	-0.4	-8.0	0.5
South Asia	5.6	1.2	5.6	4.6	7.0	6.9	7.1	5.3	3.7	3.1
India	5.6	0.5	5.4	4.9	7.5	7.3	7.5	5.5	4.0	3.5
Pakistan	4.5	5.5	7.8	1.9	3.9	5.1	4.6	3.0	2.0	1.0
Latin America	-0.1	3.7	2.9	3.9	5.2	0.2	3.7	5.1	1.9	0.5
Mexico	5.1	4.2	3.6	2.0	4.5	-6.3	5.2	7.0	4.0	3.3
Caribbean/Central	0.7	4.0	8.0	4.9	4.4	2.9	8.1	2.9	4.0	3.6
South America	-1.4	3.5	2.6	4.5	5.4	1.9	3.1	4.6	1.2	-0.3
Argentina	0.2	8.9	8.6	6.0	7.4	-4.6	4.4	8.2	4.2	1.8
Brazil	-4.6	0.5	-1.2	4.5	5.8	3.0	2.9	2.9	-0.1	-2.6
Colombia	4.1	1.8	4.2	5.2	5.8	5.3	2.4	3.0	2.3	1.6
Venezuela	6.5	9.7	6.1	0.3	-2.9	3.4	-0.4	5.1	-3.0	0.0
Middle East	5.0	2.9	5.5	3.5	0.3	3.5	4.3	4.1	1.2	1.7
Israel	6.8	7.7	5.6	5.6	6.9	7.0	4.6	2.3	1.5	1.8
Saudi Arabia	8.7	8.4	2.8	-0.6	0.5	0.5	1.4	1.9	-1.0	0.5
Turkey	9.3	0.9	6.0	8.0	-5.5	7.0	7.0	7.6	4.0	3.0
Africa	1.6	0.7	1.2	1.3	2.7	2.8	5.0	2.8	3.5	3.4
North Africa	2.2	1.0	2.2	0.1	2.8	2.4	5.6	2.4	4.9	4.3
Egypt	5.6	1.1	4.4	2.9	3.9	4.6	5.0	5.0	5.0	4.7
Sub-Saharan	1.1	0.5	0.3	2.5	2.6	3.2	4.5	3.1	2.2	2.5
South Africa	-0.5	-1.0	-2.6	1.5	2.8	3.1	3.3	1.7	0.8	2.2
	<i>Consumer prices, percent change</i>									
Developed Economies	5.2	4.6	3.5	3.0	2.6	2.5	2.4	2.1	2.1	2.0
Transition Economies	38.6	95.8	656.6	609.3	268.4	124.1	41.4	27.8	13.8	8.7
Developing Economies	68.1	36.2	38.3	46.8	50.7	21.7	13.7	8.5	10.2	8.5
Asia	6.5	7.8	6.8	10.3	14.7	11.9	6.7	3.9	8.0	6.2
Latin America	438.3	129.1	151.4	208.8	210.2	35.9	22.3	13.1	9.1	7.4
Middle East	22.4	27.5	25.6	24.6	31.9	35.9	24.5	22.6	26.6	26.3
Africa	17.5	24.3	32.1	31.2	34.6	33.9	26.2	10.5	7.5	6.0

The last three years are either estimates or forecasts. Sources: Oxford Economic Forecasting; International Financial Statistics, IMF.

Information contact: Andy Jerardo (202) 694-5323

Farm Prices

Table 4—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1997	1998				
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct
	1990-92=100								
Prices received									
All farm products	102	112	107	107	102	102	101	99	99
All crops	112	126	115	114	107	107	104	101	100
Food grains	134	157	128	123	96	89	85	88	100
Feed grains and hay	112	146	117	111	105	101	91	86	85
Cotton	127	122	112	112	113	110	109	111	110
Tobacco	103	105	104	106	--	94	93	103	107
Oil-bearing crops	104	128	130	119	111	111	98	93	93
Fruit and nuts, all	100	118	109	106	124	131	142	131	126
Commercial vegetables	120	109	120	140	108	122	111	112	134
Potatoes and dry beans	107	114	93	90	105	104	93	89	82
Livestock and products	92	99	99	98	98	96	98	97	98
Meat animals	85	87	92	88	86	79	78	73	75
Dairy products	98	114	102	113	107	108	118	127	135
Poultry and eggs	107	120	114	112	115	121	132	128	127
Prices paid									
Commodities and services, interest, taxes, and wage rates	110	115	116	117	115	115	114	113	114
Production items	109	115	116	117	113	112	111	110	110
Feed	104	130	122	121	105	106	101	96	95
Livestock and poultry	82	75	93	94	88	83	83	80	85
Seeds	110	115	119	120	123	123	123	123	123
Fertilizer	120	124	121	117	115	114	112	111	110
Agricultural chemicals	115	119	121	122	122	122	122	122	123
Fuels	94	105	103	114	88	85	83	86	86
Supplies and repairs	112	115	117	118	118	119	119	119	120
Autos and trucks	107	108	109	119	118	118	118	118	118
Farm machinery	120	125	128	132	132	132	132	132	133
Building material	114	115	118	118	118	118	119	118	118
Farm services	118	118	118	116	117	118	117	117	116
Rent	116	119	119	121	124	124	124	124	124
Int. payable per acre on farm real estate debt	101	105	106	107	108	108	108	108	108
Taxes payable per acre on farm real estate	109	112	115	115	119	119	119	119	119
Wage rates (seasonally adjusted)	114	117	123	126	130	125	125	125	131
Production items, interest, taxes, and wage rates	109	114	116	117	114	113	113	111	112
Ratio, prices received to prices paid (%)*	93	98	92	91	89	89	89	88	87
Prices received (1910-14=100)	647	712	679	680	650	645	643	630	630
Prices paid, etc. (parity index) (1910-14=100)	1,437	1,504	1,527	1,562	1,536	1,528	1,519	1,507	1,517
Parity ratio (1910-14=100) (%)*	45	47	45	44	43	42	42	42	42

-- = Not available. Values for two most recent months are revised or preliminary. *Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio uses the most recent prices paid index. Data for this table is taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://jan.mannlib.cornell.edu/reports/nassr/price/pap-bb>. For historical data or for categories not listed here, call the National Agricultural Statistics Service (NASS) Information Hotline at 1-800-727-9540, or access the NASS Home Page at <http://www2.hqnet.usda.gov/nass>.

Table 5—Prices Received by Farmers, U.S. Average

	Annual ¹			1997	1998					
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Crops										
All wheat (\$/bu.)	4.55	4.30	3.45	3.54	2.77	2.56	2.39	2.41	2.79	2.97
Rice, rough (\$/cwt)	9.15	9.96	9.64	9.71	9.51	9.57	8.95	9.35	9.25	9.26
Corn (\$/bu.)	3.24	2.71	2.60	2.51	2.28	2.20	1.90	1.83	1.91	1.94
Sorghum (\$/cwt)	5.69	4.17	4.00	4.01	3.96	3.80	3.32	2.91	2.96	3.12
All hay, baled (\$/ton)	82.20	95.80	102.50	100.00	91.80	88.60	88.50	86.50	85.20	81.40
Soybeans (\$/bu.)	6.72	7.35	6.50	6.86	6.15	6.13	5.43	5.25	5.18	5.44
Cotton, upland (¢/lb.)	75.40	69.30	66.90	67.90	68.50	66.50	66.20	67.10	66.40	64.70
Potatoes (\$/cwt)	6.77	4.93	5.68	5.13	6.04	5.93	5.30	4.92	4.47	4.88
Lettuce (\$/cwt) ²	23.50	14.70	17.30	29.90	11.40	15.40	16.20	14.00	21.30	9.48
Tomatoes fresh (\$/cwt) ²	25.80	28.00	33.00	45.40	27.00	40.80	20.40	27.20	43.10	47.90
Onions (\$/cwt)	11.10	10.60	12.60	10.10	15.90	21.30	15.10	12.90	12.70	13.40
Beans, dry edible (\$/cwt)	20.80	23.50	17.70	18.60	21.30	21.40	19.80	19.30	19.60	19.90
Apples for fresh use (¢/lb.)	24.00	20.80	22.20	23.00	16.30	16.10	19.00	22.70	22.80	18.10
Pears for fresh use (\$/ton)	272.00	376.00	276.00	352.00	353.00	405.00	457.00	420.00	479.00	398.00
Oranges, all uses (\$/box) ³	4.23	5.01	4.57	2.41	6.41	5.85	5.37	4.97	5.42	5.87
Grapefruit, all uses (\$/box) ³	2.30	2.43	1.74	1.84	3.58	3.66	6.01	11.09	3.88	3.19
Livestock										
Cattle, all beef (\$/cwt)	61.80	58.70	63.10	63.30	61.80	58.40	57.40	56.10	58.00	57.90
Calves (\$/cwt)	73.10	58.40	78.90	82.90	81.70	76.60	76.90	74.10	75.70	77.60
Hogs, all (\$/cwt)	40.50	51.90	52.90	45.10	42.20	36.70	35.10	29.50	27.40	19.20
Lambs (\$/cwt)	78.20	88.20	90.30	83.10	88.70	81.00	79.90	71.40	67.30	--
All milk, sold to plants (\$/cwt)	12.78	14.75	13.36	14.70	14.00	14.10	15.40	16.60	17.60	17.90
Milk, manuf. grade (\$/cwt)	11.79	13.43	12.17	13.60	13.00	14.00	14.60	15.40	16.70	17.10
Broilers, live (¢/lb.)	34.40	38.10	37.70	33.70	40.30	43.20	46.90	45.90	43.90	41.50
Eggs, all (¢/doz.) ⁴	62.40	74.90	70.20	80.90	60.00	58.30	64.90	63.40	66.40	72.80
Turkeys (¢/lb.)	41.00	43.30	39.90	41.90	35.90	37.50	38.80	40.20	42.80	44.00

-- = Not available. Values for last two months revised or preliminary. 1. Season-average price by crop year for crops. Calendar year average of monthly prices for livestock. 2. Excludes Hawaii. 3. Equivalent on-tree returns. 4. Average of all eggs sold by producers including hatching eggs and eggs sold at retail. Data for this table is taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://jan.mannlib.cornell.edu/reports/nassr/price/pap-bb>. For historical data or for categories not listed here, call the National Agricultural Statistics Service (NASS) Information Hotline at 1-800-727-9540, or access the NASS Home Page at <http://www2.hqnet.usda.gov/nass>.

Producer & Consumer Prices

Table 6—Consumer Price Indexes for All Urban Consumers, U.S. Average (not seasonally adjusted)

	Annual			1997	1998					
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
	<i>1982-84=100</i>									
Consumer Price Index, all items	152.4	156.9	160.5	161.5	163.0	163.2	163.4	163.6	164.0	164.0
CPI, all items less food	153.1	157.5	161.1	162.1	165.3	163.6	163.9	164.1	164.4	164.3
All food	148.4	153.3	157.3	158.5	160.1	160.5	161.0	161.1	162.0	162.1
Food away from home	149.0	152.7	157.0	158.6	160.7	161.1	161.5	162.1	162.3	162.6
Food at home	148.8	154.3	158.1	159.1	160.5	160.8	161.4	161.2	162.5	162.5
Meats ¹	135.5	140.2	144.4	144.6	141.5	141.8	142.2	141.6	141.3	141.4
Beef and veal	134.9	134.5	136.8	137.0	136.3	136.1	137.0	136.3	136.1	137.0
Pork	134.8	148.2	155.9	155.5	148.7	149.7	149.9	148.7	147.5	146.2
Poultry	143.5	152.4	156.6	157.4	155.5	156.6	158.9	159.3	161.1	159.6
Fish and seafood	171.6	173.1	177.1	178.9	180.5	181.4	183.5	181.5	183.1	183.1
Eggs	120.5	142.1	140.0	145.1	126.3	127.5	135.4	132.4	136.1	139.4
Dairy products ²	132.8	142.1	145.5	147.0	148.1	148.2	150.5	152.9	155.0	155.9
Fats and oils ³	137.3	140.5	141.7	140.4	143.3	147.6	149.7	152.4	156.8	155.1
Fresh fruits	219.0	234.4	236.3	233.9	247.3	247.4	248.7	247.6	251.8	249.6
Processed fruits	137.1	145.2	148.8	147.8	--	--	--	--	--	--
Fresh vegetables	193.1	189.2	194.6	205.2	214.7	214.0	205.6	200.1	213.9	214.9
Potatoes	174.7	180.6	174.2	174.3	193.1	196.5	192.7	189.1	187.0	176.7
Processed vegetables	138.3	143.9	147.2	146.2	--	--	--	--	--	--
Cereals and bakery products	167.5	174.0	177.6	178.0	181.6	181.8	182.7	181.9	182.2	182.1
Sugar and sweets	137.5	143.7	147.8	147.4	150.5	149.9	150.2	150.8	150.5	149.6
Nonalcoholic beverages ⁴	131.7	128.6	133.4	134.7	132.8	132.3	132.0	132.2	132.6	132.7
Apparel										
Apparel, commodities less footwear	129.3	128.5	129.4	131.4	--	--	--	--	--	--
Footwear	125.4	126.6	127.6	129.3	128.2	127.0	127.7	128.6	130.3	130.4
Tobacco and smoking products	225.7	232.8	243.7	250.7	266.9	273.2	273.7	283.5	284.9	281.3
Alcoholic beverages	153.9	158.5	162.8	163.7	165.5	165.6	165.7	166.3	166.6	166.8

-- = Not available. 1. Beef, veal, lamb, pork, and processed meat. 2. Included butter through Dec 1997. 3. Includes butter as of Jan 1998. 4. Includes fruit juices as of Jan 1998. This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at <http://stats.bls.gov/blshome.html> and a Consumer Prices Information Hotline at (202) 606-7828.

Table 7—Producer Price Indexes, U.S. Average (not seasonally adjusted)

	Annual		1997		1998					
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
	<i>1982=100</i>									
All commodities	124.8	127.7	127.6	127.9	124.8	124.9	124.2	123.9	124.0	123.5
Finished goods ¹	127.9	131.3	131.8	131.7	130.7	131.0	130.6	130.6	131.4	130.8
All foods ²	126.7	132.5	132.8	133.4	131.9	132.6	132.8	133.5	133.7	133.0
Consumer foods	129.0	133.6	134.5	134.6	133.8	134.7	135.0	135.4	135.5	134.7
Fresh fruits and melons	85.7	100.8	99.4	89.6	91.1	90.2	90.2	90.9	91.7	85.4
Fresh and dry vegetables	144.4	135.0	123.1	130.0	120.9	146.6	116.4	130.8	148.4	124.5
Dried and dehydrated fruits	121.2	124.2	124.9	122.9	127.0	125.6	125.6	125.6	124.3	122.3
Canned fruits and juices	129.4	137.5	137.6	135.3	133.8	134.5	134.4	134.2	132.8	135.4
Frozen fruits, juices and ades	115.9	123.9	117.2	110.8	115.4	117.1	116.3	116.5	117.2	123.7
Fresh veg. except potatoes	139.8	120.9	121.3	124.7	106.5	153.7	114.9	135.0	161.9	131.2
Canned vegetables and juices	116.6	121.2	120.1	120.3	121.9	122.0	123.1	122.6	120.2	120.7
Frozen vegetables	124.2	125.4	125.8	125.5	124.6	125.5	125.6	125.3	126.0	125.6
Potatoes	142.6	133.9	106.1	117.6	120.4	116.0	106.5	147.5	126.0	120.7
Eggs for fresh use (1991=100)	86.3	105.1	97.1	117.7	86.9	80.8	91.3	88.9	92.0	100.3
Bakery products	164.3	169.8	173.9	174.8	175.7	175.6	176.0	175.5	176.2	176.3
Meats	102.9	109.0	111.6	108.1	106.0	106.0	104.5	100.4	98.1	97.3
Beef and veal	100.9	100.2	102.8	104.1	99.8	99.8	100.8	98.3	96.9	99.9
Pork	101.4	120.9	123.1	111.3	111.6	111.6	104.8	96.1	90.8	83.9
Processed poultry	114.3	119.8	117.4	116.0	120.1	125.4	127.3	129.4	126.0	122.0
Unprocessed and packaged fish	170.9	165.9	178.1	189.0	177.7	179.1	180.4	178.4	181.3	185.4
Dairy products	119.7	130.4	128.1	134.0	133.4	135.6	139.4	145.1	148.0	148.6
Processed fruits and vegetables	122.4	127.6	126.4	124.9	125.6	126.1	126.5	126.3	125.2	126.6
Shortening and cooking oil	142.5	138.5	137.8	142.2	143.0	143.7	137.3	142.5	142.7	143.5
Soft drinks	133.1	134.0	133.2	132.4	134.6	134.6	134.8	134.8	135.0	134.7
Finished consumer goods less foods	123.9	127.6	128.2	128.0	127.0	127.0	126.4	126.3	127.1	126.3
Alcoholic beverages	128.5	132.8	135.1	134.0	134.9	134.9	134.9	135.0	135.0	136.4
Apparel	124.2	125.1	125.7	126.0	126.6	126.6	126.3	126.3	126.7	126.6
Footwear	139.2	141.6	143.7	144.1	144.7	144.5	145.0	144.7	144.7	144.9
Tobacco products	231.3	237.4	248.9	256.4	278.7	278.7	286.4	287.3	287.4	288.1
Intermediate materials ³	124.9	125.8	125.6	125.5	123.5	123.5	123.1	123.0	122.3	121.8
Materials for food manufacturing	119.5	125.3	123.2	124.2	123.0	122.9	123.3	124.6	125.3	125.3
Flour	122.8	136.8	118.7	114.2	109.0	108.0	104.0	102.8	109.1	110.4
Refined sugar ⁴	119.4	123.7	123.6	119.9	120.0	118.6	119.9	120.7	119.9	119.6
Crude vegetable oils	129.8	118.1	116.6	126.1	130.8	130.8	120.4	131.4	124.3	131.0
Crude materials ⁵	102.7	113.8	111.1	114.7	97.6	98.1	94.6	92.9	93.9	92.9
Foodstuffs and feedstuffs	105.8	121.5	112.2	110.4	106.2	103.7	103.0	100.9	103.4	102.4
Fruits and vegetables and nuts ⁶	108.4	122.5	115.5	112.8	110.2	119.9	108.0	114.1	121.5	109.3
Grains	112.6	151.1	111.2	107.1	94.0	92.0	82.8	77.3	84.6	88.5
Slaughter livestock	92.8	95.2	96.3	93.1	90.7	81.8	82.1	79.0	78.7	74.9
Slaughter poultry, live	125.6	140.5	131.0	122.3	140.5	156.7	167.8	164.1	161.8	151.4
Plant and animal fibers	155.3	129.4	117.0	115.5	117.9	120.9	115.8	117.8	112.6	110.9
Fluid milk	93.7	107.9	97.5	104.1	104.1	105.9	114.2	119.8	126.2	130.6
Oilseeds	112.6	139.4	140.8	134.8	116.0	120.7	104.6	101.2	103.0	108.8
Leaf tobacco	78.9	89.4	--	108.5	--	95.8	93.8	104.1	109.6	106.4
Raw cane sugar	119.7	118.6	116.8	116.4	118.0	119.7	118.4	116.0	115.6	116.5

1. Commodities ready for sale to ultimate consumer. 2. Includes all raw, intermediate, and processed foods (excludes soft drinks, alcoholic beverages, and manufactured animal feeds). 3. Commodities requiring further processing to become finished goods. 4. All types and sizes of refined sugar. 5. Products entering market for the first time that have not been manufactured at that point. 6. Fresh and dried.

This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at <http://stats.bls.gov/blshome.html> and a Producer Prices Information Hotline at (202) 606-7705.

Farm-Retail Price Spreads

Table 8—Farm-Retail Price Spreads

	Annual		1997			1998				
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Market basket ¹										
Retail cost (1982-84=100)	149.4	155.9	159.7	160.6	162.2	162.6	163.4	163.2	164.8	164.7
Farm value (1982-84=100)	102.7	111.1	106.2	106.8	102.9	102.7	103.2	104.9	106.4	104.5
Farm-retail spread (1982-84=100)	174.6	180.1	188.6	189.6	194.2	194.8	195.8	194.6	196.2	197.2
Farm value-retail cost (%)	24.1	24.9	23.3	23.3	22.2	22.1	22.1	22.5	22.6	22.2
Meat products										
Retail cost (1982-84=100)	135.5	140.1	144.4	144.7	141.5	141.8	142.2	141.6	141.3	141.4
Farm value (1982-84=100)	93.8	100.4	101.2	97.0	93.4	89.1	85.4	81.3	79.3	76.9
Farm-retail spread (1982-84=100)	178.2	180.9	188.6	193.6	190.9	195.9	200.4	203.5	204.9	207.6
Farm value-retail cost (%)	35.1	36.3	35.5	34.0	33.4	31.8	30.4	29.1	28.4	27.6
Dairy products										
Retail cost (1982-84=100)	132.8	142.1	145.5	147.0	148.1	148.2	150.5	152.9	155.0	155.9
Farm value (1982-84=100)	92.2	107.2	98.0	105.3	103.4	103.2	113.9	125.4	126.2	125.8
Farm-retail spread (1982-84=100)	170.3	174.3	189.3	185.5	189.3	189.7	184.3	178.3	181.6	183.6
Farm value-retail cost (%)	33.3	36.2	32.3	34.3	33.5	33.4	36.3	39.3	39.1	38.7
Poultry										
Retail cost (1982-84=100)	143.5	152.4	156.6	157.4	155.5	156.6	158.9	159.3	161.1	159.6
Farm value (1982-84=100)	113.7	126.2	120.6	113.4	126.6	135.3	145.9	143.9	139.7	133.8
Farm-retail spread (1982-84=100)	177.7	182.6	198.1	208.0	188.8	181.2	173.9	177.1	185.7	189.3
Farm value-retail cost (%)	42.4	44.3	41.2	38.6	43.6	46.2	49.1	48.3	46.4	44.9
Eggs										
Retail cost (1982-84=100)	120.5	142.1	140.0	145.1	126.3	127.5	135.4	132.4	136.1	139.4
Farm value (1982-84=100)	91.1	114.7	99.3	121.9	77.2	74.2	88.3	85.2	91.4	104.9
Farm-retail spread (1982-84=100)	173.2	191.4	213.0	186.9	214.6	223.2	220.0	217.1	216.3	201.5
Farm value-retail cost (%)	48.6	51.9	45.6	54.0	39.2	37.4	41.9	41.4	43.2	48.3
Cereal and bakery products										
Retail cost (1982-84=100)	167.5	174.0	177.6	178.0	181.6	181.8	182.7	181.9	182.2	182.1
Farm value (1982-84=100)	110.1	125.6	107.7	102.7	92.5	88.7	84.8	85.6	92.4	95.7
Farm-retail spread (1982-84=100)	175.5	180.7	187.4	188.5	194.0	194.8	196.4	195.3	194.7	194.2
Farm value-retail cost (%)	8.1	7.2	7.4	7.1	6.2	6.0	5.7	5.8	6.2	6.4
Fresh fruit										
Retail cost (1982-84=100)	226.9	243.0	245.1	243.3	256.6	255.7	259.2	260.6	265.9	262.7
Farm value (1982-84=100)	136.2	151.7	137.0	140.6	135.7	132.3	136.0	152.3	158.9	143.8
Farm-retail spread (1982-84=100)	268.7	285.2	295.0	290.7	312.4	312.7	316.0	310.6	315.3	317.6
Farm value-retail cost (%)	19.0	19.7	17.7	18.3	16.7	16.3	16.6	18.5	18.9	17.3
Fresh vegetables										
Retail cost (1982-84=100)	193.1	189.2	194.6	205.2	214.7	214.0	205.6	200.1	213.9	214.9
Farm value (1982-84=100)	130.1	113.3	118.7	131.2	105.5	134.3	104.2	103.0	132.4	123.6
Farm-retail spread (1982-84=100)	225.5	228.3	233.6	243.2	270.9	255.0	257.7	250.0	255.8	261.8
Farm value-retail cost (%)	22.9	20.3	20.7	21.7	16.7	21.3	17.2	17.5	21.0	19.5
Processed fruits and vegetables										
Retail cost (1982-84=100)	137.5	144.4	147.9	146.9	150.8	151.8	152.5	152.1	151.6	150.7
Farm value (1982-84=100)	120.5	121.5	115.9	115.0	120.6	116.7	116.1	117.8	117.9	118.4
Farm-retail spread (1982-84=100)	142.8	151.6	157.9	156.8	160.2	162.7	163.9	162.8	162.1	160.8
Farm value-retail cost (%)	20.8	20.0	18.6	18.6	19.0	18.3	18.1	18.4	18.5	18.7
Fats and oils										
Retail cost (1982-84=100)	137.3	140.5	141.7	140.4	143.3	147.6	149.7	152.4	156.8	155.1
Farm value (1982-84=100)	121.3	112.3	109.4	117.9	119.6	114.9	112.9	120.5	117.5	117.8
Farm-retail spread (1982-84=100)	143.1	150.9	153.6	148.7	152.0	159.6	163.2	164.1	171.3	168.8
Farm value-retail cost (%)	23.8	21.5	20.8	22.6	22.5	20.9	20.3	21.3	20.1	20.4

See footnotes at end of table, next page.

Table 8—Farm-Retail Price Spreads (continued)

	Annual			1997			1998			
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Beef, All Fresh Retail Price (cts/lb)	259.4	252.4	253.8	253.4	251.7	251.9	255.1	250.0	251.9	251.7
Beef, Choice										
Retail price (cents/lb.) ²	284.4	280.2	279.5	278.0	278.7	278.5	279.4	274.2	275.0	280.0
Wholesale value (cents) ³	163.9	158.1	158.2	160.2	154.5	154.0	160.6	153.2	156.4	158.1
Net farm value (cents) ⁴	138.4	134.9	137.2	139.5	134.8	128.6	126.1	124.6	130.9	131.5
Farm-retail spread (cents)	146.0	145.3	142.3	138.5	143.9	149.9	153.3	149.6	144.1	148.5
Wholesale-retail (cents) ⁵	120.5	122.1	121.3	117.8	124.2	124.5	118.8	121.0	118.6	121.9
Farm-wholesale (cents) ⁶	25.5	23.2	21.0	20.7	19.7	25.4	34.5	28.6	25.5	26.6
Farm value-retail price (%)	49	48	49	50	48	46	45	45	48	47
Pork										
Retail price (cents/lb.) ²	194.8	220.9	231.5	231.3	228.9	231.0	230.9	231.2	230.2	226.9
Wholesale value (cents) ³	98.8	117.2	117.1	107.9	98.0	94.9	96.4	93.2	91.1	84.6
Net farm value (cents) ⁴	66.7	84.6	81.1	69.9	65.8	57.6	55.4	47.9	42.0	28.1
Farm-retail spread (cents)	128.1	136.3	150.4	161.4	163.1	173.4	175.5	183.3	188.2	198.8
Wholesale-retail (cents) ⁵	96.0	103.7	114.4	123.4	130.9	136.1	134.5	138.0	139.1	142.3
Farm-wholesale (cents) ⁶	32.1	32.6	36.0	38.0	32.2	37.3	41.0	45.3	49.1	56.5
Farm value-retail price (%)	34	38	35	30	29	25	24	21	18	12

1. Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by the Bureau of Labor Statistics (BLS). Farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for by-product. Farm values are based on prices at first point of sale, and may include marketing charges such as grading and packing for some commodities. The farm-retail spread, the difference between the retail price and farm value, represents charges for assembling, processing, transporting, distributing. 2. Weighted-average price of retail cuts from pork and Choice yield grade 3 beef. Prices from BLS. 3. Value of wholesale (boxed beef) and wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs and by-product values. 4. Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of by-products. 5. Charges for retailing and other marketing services such as wholesaling, and in-city transportation. 6. Charges for livestock marketing, processing, and transportation. *Information contact: Veronica Jones (202) 694-5387, Larry Duewer (202) 694-5172*

Table 9—Price Indexes of Food Marketing Costs

	Annual			1996		1997				1998	
	1995	1996	1997	IV	I	II	III	IV	I	II	
	1987=100*										
Labor--hourly earnings and benefits	455.2	459.7	474.3	465.3	469.3	473.0	474.6	480.2	484.9	488.3	
Processing	472.5	474.7	486.0	480.2	481.4	484.9	487.1	490.5	493.8	497.7	
Wholesaling	502.2	516.0	536.2	520.5	526.2	534.1	538.9	545.4	546.8	552.5	
Retailing	417.1	419.9	435.2	426.1	432.1	434.1	433.6	441.1	448.7	450.6	
Packaging and containers	415.7	399.8	390.3	393.1	392.1	388.7	387.6	392.9	398.5	396.7	
Paperboard boxes and containers	392.1	363.8	341.9	348.9	347.2	335.4	334.7	350.3	365.4	368.7	
Metal cans	504.9	498.3	491.0	481.8	489.4	496.1	490.8	487.9	494.1	484.7	
Paper bags and related products	457.8	437.8	441.9	443.3	443.8	441.6	439.5	442.5	438.8	434.0	
Plastic films and bottles	330.6	326.5	326.6	331.9	326.6	325.3	326.9	327.5	326.7	325.0	
Glass containers	463.3	460.5	447.4	459.3	449.3	446.9	446.6	446.6	446.9	446.9	
Metal foil	263.1	235.7	233.4	229.9	228.2	232.0	237.2	236.4	232.2	232.2	
Transportation services	436.6	429.8	430.0	430.2	431.0	430.6	429.0	429.4	429.9	431.8	
Advertising	539.1	580.1	609.4	582.8	608.1	608.7	609.3	611.6	623.2	624.2	
Fuel and power	633.7	670.7	668.5	699.2	689.5	657.4	658.1	669.0	625.1	622.9	
Electric	511.3	501.3	499.2	492.6	488.5	499.0	517.7	491.5	482.2	489.3	
Petroleum	559.7	666.8	616.7	745.5	672.8	609.7	574.8	609.6	495.5	470.0	
Natural gas	1,091.7	1,136.7	1,214.0	1,180.9	1,261.1	1,165.7	1,179.7	1,249.4	1,229.4	1,242.1	
Communications, water and sewage	284.9	296.8	302.8	299.1	301.1	302.2	303.5	304.2	305.5	308.0	
Rent	269.0	268.2	265.6	268.3	266.6	265.6	265.1	265.1	262.5	260.3	
Maintenance and repair	486.1	499.6	514.9	506.2	509.6	513.0	517.3	519.7	524.1	527.1	
Business services	491.0	501.7	512.3	506.6	509.5	511.7	513.9	514.1	518.4	521.2	
Supplies	342.7	338.3	337.8	339.0	338.8	337.0	337.5	337.9	335.6	332.4	
Property taxes and insurance	546.8	564.3	580.1	570.4	573.6	577.3	582.2	587.3	591.1	595.4	
Interest, short-term	113.5	103.9	108.9	104.2	105.3	111.2	108.8	110.1	106.5	106.7	
Total marketing cost index	444.8	452.1	459.9	455.6	458.6	458.4	459.1	463.4	465.3	466.9	

Last two quarters preliminary. * Indexes measure changes in employee earnings and benefits and in prices of supplies used in processing, wholesaling, and retailing U.S. farm foods purchased for at-home consumption. *Information contact: Veronica Jones (202) 694-5387*

Livestock & Products

Table 10—U.S. Meat Supply & Use

	Beg. stocks	Production ¹	Imports	Total supply	Exports	Ending stocks	Consumption		Conversion factor ³	Primary market price ⁴
							Total	Per capita ²		
							<i>Million lbs. ⁵</i>			
							<i>lbs.</i>		<i>\$/cwt</i>	
Beef										
1995	548	25,222	2,103	27,873	1,821	519	25,533	67	0.695	66
1996	519	25,525	2,073	28,117	1,877	377	25,863	68	0.700	65
1997	377	25,490	2,343	28,210	2,136	465	25,609	67	0.700	66
1998	465	25,792	2,611	28,868	2,158	400	26,310	68	0.700	61.84
1999	400	24,181	2,790	27,371	2,340	350	24,681	63	0.700	69-75
Pork										
1995	438	17,849	664	18,951	787	396	17,768	52	0.776	42
1996	396	17,117	618	18,131	970	366	16,795	49	0.776	53
1997	366	17,274	633	18,273	1,044	408	16,821	49	0.776	51
1998	408	18,972	680	20,060	1,232	475	18,353	53	0.776	32.24
1999	475	19,455	700	20,630	1,355	490	18,785	53	0.776	32-34
Veal⁶										
1995	7	319	0	326	0	7	319	1	0.83	75
1996	7	378	0	385	0	7	378	1	0.83	59
1997	7	334	0	341	0	8	333	1	0.83	82
1998	8	263	0	271	0	6	265	1	0.83	82
1999	6	253	0	259	0	6	253	1	0.83	94
Lamb and mutton										
1995	11	287	64	362	6	8	348	1	0.89	76
1996	8	268	73	349	6	9	334	1	0.89	85
1997	9	260	83	352	5	14	333	1	0.89	88
1998	14	245	93	352	5	11	336	1	0.89	74
1999	11	223	85	319	5	11	303	1	0.89	77
Total red meat										
1995	1,004	43,677	2,831	47,512	2,614	930	43,968	122	--	--
1996	930	43,288	2,764	46,982	2,853	759	43,370	120	--	--
1997	759	43,358	3,059	47,176	3,185	895	43,096	118	--	--
1998	895	45,272	3,384	49,551	3,395	892	45,264	123	--	--
1999	892	44,112	3,575	48,579	3,700	857	44,022	119	--	--
Broilers										
1995	458	24,827	1	25,287	3,894	560	20,832	69	0.869	56
1996	560	26,124	4	26,688	4,420	641	21,626	71	0.869	61
1997	641	27,041	5	27,687	4,664	607	22,416	74	0.869	59
1998	607	27,559	5	28,170	4,466	625	23,079	78	0.869	62.70
1999	625	28,968	4	29,597	4,325	650	24,622	78	0.869	56-60
Mature chickens										
1995	14	496	3	513	99	7	406	2	1.0	--
1996	7	491	0	498	265	6	228	1	1.0	--
1997	6	510	0	516	384	7	125	1	1.0	--
1998	7	521	0	528	420	7	101	1	1.0	--
1999	7	546	0	554	412	5	137	1	1.0	--
Turkeys										
1995	254	5,069	2	5,326	348	271	4,706	18	1.0	66
1996	271	5,401	1	5,673	438	328	4,906	19	1.0	66
1997	328	5,412	1	5,741	598	415	4,727	18	1.0	65
1998	415	5,174	1	5,590	428	300	4,861	18	1.0	61.90
1999	300	5,186	1	5,487	430	275	4,781	18	1.0	60-64
Total poultry										
1995	727	30,393	6	31,125	4,342	839	25,944	88	--	--
1996	839	32,015	5	32,859	5,123	975	26,760	90	--	--
1997	975	32,964	6	33,944	5,646	1,029	27,269	91	--	--
1998	1,029	33,254	6	34,289	5,314	932	28,042	93	--	--
1999	932	34,699	5	35,637	5,167	930	29,314	97	--	--
Red meat and poultry										
1995	1,731	74,070	2,837	78,637	6,956	1,769	69,912	210	--	--
1996	1,769	75,303	2,769	79,841	7,976	1,734	70,130	210	--	--
1997	1,734	76,322	3,065	81,120	8,831	1,924	70,364	209	--	--
1998	1,924	78,526	3,390	83,840	8,709	1,824	73,306	215	--	--
1999	1,824	78,811	3,580	84,216	8,867	1,787	73,561	215	--	--

-- = Not available. Values for the last year are forecasts. 1. Total including farm production for red meat and federally inspected plus nonfederally inspected for poultry. 2. Retail-weight basis. 3. Red meat, carcass to retail conversion; poultry, ready-to-cook production to retail weight. 4. Beef: Medium #1, Nebraska Direct 1,100-1,300 lb.; pork: barrows and gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb and mutton: choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 5. Carcass weight for red meats and certified ready-to-cook for poultry. 6. Beginning in 1989, veal trade is no longer reported separately. *Information contact: LaVerne Williams (202) 694-5190*

Table 11—U.S. Egg Supply & Use

	Beg. stocks	Production	Imports	Total supply	Exports	Hatching use	Ending stocks	Consumption		Primary market price*
								Total	Per capita	
<i>Million doz.</i>										
1992	13.0	5,905.0	4.3	5,922.3	157.0	732.0	13.5	5,019.8	235.9	65.4
1993	13.5	6,005.7	4.7	6,023.9	158.9	769.6	10.7	5,084.6	236.4	72.5
1994	10.7	6,178.7	3.7	6,193.1	187.6	805.4	14.9	5,185.2	238.7	67.3
1995	14.9	6,230.8	4.1	6,249.8	208.9	847.2	11.2	5,182.5	236.3	72.9
1996	11.2	6,377.7	5.4	6,394.3	253.1	863.8	8.5	5,268.9	238.1	88.2
1997	8.5	6,470.8	6.9	6,486.2	227.8	894.8	7.4	5,356.2	239.9	81.2
1998	7.4	6,625.3	5.6	6,638.3	226.5	921.6	5.0	5,485.2	243.6	76.0
1999	5.0	6,790.0	4.0	6,799.0	243.0	970.0	5.0	5,581.0	245.5	72.5

Values for the last year are forecasts. Values for previous year are preliminary. * Cartoned grade A large eggs, New York.

Information contact: LaVerne Williams (202) 694-5190

Table 12—U.S. Milk Supply & Use¹

Production	Commercial			Imports	Total commercial supply	CCC net removals	Commercial			CCC net removals		
	Farm use	Market-ings	Beg. stocks				Ending stocks	Disappearance	All milk price ¹	Skim solids basis	Total solid basis ²	
<i>Billion lbs. (milkfat basis)</i>											<i>\$/cwt</i>	<i>Billion lbs.</i>
1991	147.7	2.0	145.7	5.1	2.6	153.4	10.4	4.5	138.6	12.24	3.9	6.5
1992	150.9	1.9	149.0	4.5	2.5	155.9	9.9	4.7	141.3	13.09	2.0	5.2
1993	150.6	1.8	148.8	4.7	2.8	156.2	6.7	4.6	145.0	12.80	3.9	5.0
1994	153.7	1.7	152.0	4.6	2.9	159.4	4.8	4.3	150.3	12.97	3.7	4.2
1995	155.4	1.6	153.9	4.3	2.9	161.1	2.1	4.1	154.9	12.74	4.4	3.5
1996	154.3	1.5	153.8	4.1	2.9	159.8	0.1	4.7	155.0	14.74	0.7	0.5
1997	156.6	1.4	155.2	4.7	2.7	162.6	1.1	4.9	156.6	13.34	3.7	2.7
1998	157.4	1.4	156.0	4.9	4.6	165.5	0.4	5.1	160.1	15.30	4.0	2.6
1999	160.1	1.3	158.8	5.1	3.3	167.2	0.7	4.9	161.6	14.15	3.6	2.4

Values for latest year are forecasts. Values for the preceding year are preliminary. 1. Delivered to plants and dealers; does not reflect deductions.

2. Arbitrarily weighted average of milkfat basis (40 percent) and solids basis (60 percent). Information contact: Jim Miller (202) 694-5184

Table 13—Poultry & Eggs

	Annual			1997		1998				
	1995	1996	1997	Oct	May	Jun	Jul	Aug	Sep	Oct
Broilers										
Federally inspected slaughter certified (mil. lb.)	25,020.8	26,336.3	27,270.7	2,500.0	2,258.1	2,348.8	2,353.8	2,266.5	2,316.8	2,473.6
Wholesale price, 12-city (cents/lb.)	56.2	61.2	58.8	55.4	60.1	64.3	68.5	72.1	70.5	68.0
Price of grower feed (\$/ton) ¹	135.1	175.5	157.8	145.0	137.0	134.0	131.0	116.0	112.0	113.0
Broiler-feed price ratio ²	5.1	4.4	4.7	4.8	5.4	6.0	6.6	8.1	8.2	7.9
Stocks beginning of period (mil. lb.)	458.4	560.1	641.3	545.6	710.3	654.7	583.5	553.2	541.2	581.0
Broiler-type chicks hatched (mil.)	7,932.4	8,076.9	8,306.5	683.1	740.0	719.0	723.4	713.2	692.9	692.9
Turkeys										
Federally inspected slaughter certified (mil. lb.)	5,128.8	5,465.6	5,477.9	513.7	421.2	457.9	459.3	413.4	429.8	473.8
Wholesale price, Eastern U.S. 8-16 lb. young hens (cents/lb.)	66.4	66.5	64.9	67.3	58.7	60.6	61.4	63.2	65.6	71.5
Price of turkey grower feed (\$/ton) ¹	130.1	166.1	142.5	132.0	122.0	118.0	115.0	102.0	99.0	103.0
Turkey-feed price ratio ²	6.3	5.3	5.6	6.2	5.8	6.1	6.5	7.6	8.1	8.3
Stocks beginning of period (mil. lb.)	254.4	271.3	328.0	770.7	580.2	612.9	656.5	703.0	708.8	702.6
Poultz placed in U.S. (mil.)	321.7	327.2	321.5	24.6	25.7	27.0	26.2	24.5	21.1	22.8
Eggs										
Farm production (mil.)	74,769	76,532	77,650	6,646	6,630	6,423	6,695	6,675	6,458	6,760
Average number of layers (mil.)	294	299	304	306	308	308	308	308	310	314
Rate of lay (eggs per layer on farms)	253.8	256.2	255.2	21.7	21.5	20.9	21.7	21.6	20.8	21.6
Cartoned price, New York, grade A large (cents/doz.) ³	72.9	88.2	81.2	77.0	60.4	67.3	73.3	77.7	77.0	78.9
Price of laying feed (\$/ton) ¹	149.7	184.4	159.8	151.0	161.0	150.0	148.0	121.0	119.0	118.0
Egg-feed price ratio ²	8.6	8.5	8.8	8.7	6.8	8.0	7.9	10.7	10.7	11.3
Stocks, first of month										
Frozen (mil. doz.)	14.8	10.5	7.7	8.2	7.0	9.8	7.7	8.9	6.8	6.3
Replacement chicks hatched (mil.)	397.0	407.0	422.0	26.7	39.6	39.2	36.6	33.5	38.6	30.6

1. Calculated from price ratios that were revised February 1995. 2. Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight (revised February 1995). 3. Price of cartoned eggs to volume buyers for delivery to retailers. Information contact: LaVerne Williams (202) 694-5190

Table 14—Dairy

	Annual			1997				1998			
	1995	1996	1997	Oct	May	Jun	Jul	Aug	Sep	Oct	
Milk--Basic Formula Price (\$/cwt) ¹	11.83	13.39	12.05	12.83	10.88	13.10	14.77	14.99	15.10	16.04	
Wholesale prices											
Butter, Central States (cents/lb.) ²	81.9	108.2	116.2	142.8	153.2	186.7	203.1	216.6	270.8	242.3	
Am. cheese, Wis.											
assembly pt. (cents/lb.)	132.8	149.1	132.4	142.4	123.0	151.3	162.6	166.9	171.0	183.5	
Nonfat dry milk (cents/lb.) ³	108.6	122.2	110.0	106.9	103.5	102.9	103.0	104.6	110.1	111.8	
USDA net removals											
Total (mil. lb.) ⁴	2,105.7	86.9	1,090.0	102.0	23.8	12.8	15.4	13.8	15.3	14.0	
Butter (mil. lb.)	78.5	0.1	38.4	3.5	0.3	0.0	0.0	0.0	0.0	0.0	
Am. cheese (mil. lb.)	6.1	4.6	11.3	1.2	0.6	0.6	0.7	0.8	0.7	0.6	
Nonfat dry milk (Mil. lb.)	343.8	57.2	298.0	24.9	37.9	29.9	38.6	28.2	19.9	15.8	
Milk											
Milk prod. 20 states (mil. lb.)	131,780	131,343	133,861	10,977	12,067	11,446	11,345	11,160	10,706	11,164	
Milk per cow (lb.)	16,762	16,800	17,252	1,416	1,557	1,476	1,464	1,439	1,382	1,441	
Number of milk cows (1,000)	7,862	7,818	7,759	7,750	7,750	7,753	7,750	7,753	7,749	7,746	
U.S. milk production (mil. lb.) ⁵	155,424	154,259	156,602	12,818	14,070	13,341	13,223	13,002	12,469	12,976	
Stocks, beginning ⁴											
Total (mil. lb.)	5,760	4,168	4,714	5,958	6,488	6,689	6,664	6,591	6,213	5,805	
Commercial (mil. lb.)	4,263	4,099	4,704	5,939	6,460	6,663	6,637	6,554	6,173	5,765	
Government (mil. lb.)	1,497	69	10	19	28	26	27	38	40	40	
Imports, total (mil. lb.) ⁴	2,936	2,911	2,698	266	297	369	533	559	422	549	
Commercial disappearance (mil. lb.) ⁴	154,843	154,985	156,597	13,594	14,026	13,612	13,709	13,815	13,173	13,173	
Butter											
Production (mil. lb.)	1,264.5	1,174.5	1,151.2	83.3	92.9	72.6	67.1	61.5	67.2	81.2	
Stocks, beginning (mil. lb.)	79.4	18.6	13.7	43.4	67.4	72.7	60.5	51.0	41.1	33.9	
Commercial disappearance (mil. lb.)	1,186.3	1,179.8	1,108.7	97.0	88.0	89.2	86.8	84.6	80.6	93.8	
American cheese											
Production (mil. lb.)	3,131.4	3,280.8	3,285.2	260.0	293.1	287.8	277.3	261.1	246.1	263.7	
Stocks, beginning (mil. lb.)	310.4	307.0	379.9	433.8	442.2	443.2	450.1	460.9	441.7	417.3	
Commercial disappearance (mil. lb.)	3,148.5	3,230.1	3,268.6	279.6	295.1	282.9	269.0	281.1	271.0	286.4	
Other cheese											
Production (mil. lb.)	3,785.5	3,936.7	4,043.8	355.5	360.0	353.3	335.3	334.9	335.5	366.5	
Stocks, beginning (mil. lb.)	126.8	105.3	107.3	109.6	103.1	108.8	133.6	134.4	135.2	135.5	
Commercial disappearance (mil. lb.)	4,125.6	4,243.0	4,365.5	404.5	377.9	352.2	363.0	360.9	362.2	410.8	
Nonfat dry milk											
Production (mil. lb.)	1,233.0	1,061.8	1,271.6	72.6	121.3	104.2	90.2	72.5	59.9	70.3	
Stocks, beginning (mil. lb.)	103.5	70.6	71.1	133.9	113.1	132.0	129.3	112.3	78.1	64.4	
Commercial disappearance (mil. lb.)	923.7	1,009.0	894.1	66.8	65.4	80.1	69.8	79.0	54.3	73.0	
Frozen dessert											
Production (mil. gal.) ⁶	1,229.6	1,240.9	1,281.4	99.7	118.9	132.2	135.0	122.0	112.1	99.0	
		Annual		1997				1998			
	1995	1996	1997	I	II	III	IV	I	II	III	
Milk production (mil. lb.)	155,424	154,259	156,602	38,961	40,683	38,805	38,153	39,209	40,931	38,694	
Milk per cow (lb.)	16,433	16,479	16,915	4,192	4,384	4,195	4,144	4,268	4,447	4,205	
No. of milk cows (1,000)	9,458	9,361	9,258	9,295	9,280	9,251	9,206	9,186	9,205	9,201	
Milk-feed price ratio	1.63	1.60	1.54	1.54	1.45	1.47	1.71	1.73	1.71	2.05	
Returns over concentrate costs (\$/cwt milk)	9.50	10.98	9.80	9.85	9.05	9.05	11.00	11.10	10.40	12.25	

-- = Not available. Quarterly values for latest year are preliminary. 1. Manufacturing grade milk. 2. Grade AA Chicago before June 1998. 3. Prices paid f.o.b. Central States production area. 4. Milk equivalent, fat basis. 5. Monthly data ERS estimates. 6. Hard ice cream, ice milk, and hard sherbet. *Information contact: LaVerne Williams (202) 694-5190*

Table 15—Wool

	Annual			1997				1998		
	1995	1996	1997	I	II	III	IV	I	II	III
U.S. wool price (¢/lb.) ¹	258	193	238	196	244	255	258	228	255	255
Imported wool price (¢/lb.) ²	249	196	206	196	210	213	204	192	176	141
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	129,299	129,525	130,386	33,124	33,830	30,638	32,794	29,208	29,579	21,861
Carpet wool (1,000 lb.)	12,667	12,311	13,576	3,437	3,324	3,395	3,420	3,549	3,729	3,697

1. Wool price delivered at U.S. mills, clean basis, Graded Territory 64is (20.60-22.04 microns) staple 2-3/4" and up. 2. Wool price, Charleston, SC warehouse, clean basis, Australian 60/62is, type 64A (24 micron). Duty since 1982 has been 10 cents. *Information contact: Mae Dean Johnson (202) 694-5299*

Table 16—Meat Animals

	Annual			1997			1998			
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Cattle on feed (7 states, 1000+ head capacity)										
Number on feed (1,000 head) ¹	8,031	8,667	8,943	9,390	8,289	7,825	8,985	7,750	8,376	9,125
Placed on feed (1,000 head)	20,034	19,564	20,765	1,826	1,314	1,677	2,031	2,254	2,396	1,725
Marketings (1,000 head)	18,753	18,636	19,552	1,429	1,727	1,755	1,942	1,577	1,532	1,448
Other disappearance (1,000 head)	674	652	701	69	51	41	52	51	45	63
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, 1,100-1,300 lb.										
Texas	66.69	65.06	65.99	67.66	63.85	60.28	58.75	57.93	61.54	62.23
Neb. direct	66.26	65.05	66.32	67.21	63.26	59.97	58.65	58.28	62.00	61.37
Boning utility cows, Sioux Falls	35.58	30.33	34.27	32.20	39.61	36.11	36.06	33.47	31.60	31.60
Feeder steers										
Medium no. 1, Oklahoma City										
600-650 lb.	70.49	61.31	81.34	80.62	77.40	72.96	72.24	70.37	71.67	71.99
750-800 lb.	68.03	61.08	76.19	79.11	73.10	69.13	66.93	67.61	70.26	69.08
Slaughter hogs										
Barrows and gilts, 230-250 lb.										
Iowa, S. Minn.	42.35	53.39	51.36	44.54	41.57	35.91	35.11	29.37	26.98	17.55
5 markets	41.99	53.42	51.30	44.40	41.40	36.07	34.62	30.18	26.91	17.66
Sows, 5 markets	32.62	44.61	44.51	36.69	30.54	26.77	23.39	19.83	20.98	16.09
Slaughter sheep and lambs										
Lambs, Choice, San Angelo										
Ewes, Good, San Angelo	33.91	39.05	49.33	49.67	37.88	36.21	35.55	36.00	33.75	36.04
Feeder lambs										
Choice, San Angelo	81.08	94.88	104.43	94.00	88.00	76.43	82.05	74.75	70.10	74.17
Wholesale meat prices, Midwest										
Boxed beef cut-out value										
Choice, 700-800 lb.	106.09	102.01	102.75	103.74	99.58	98.46	102.16	96.66	101.09	101.44
Select, 700-800 lb.	98.45	95.34	96.15	94.66	94.71	90.41	90.65	90.59	87.41	92.14
Canner and cutter cow beef	68.67	58.18	64.50	59.67	63.50	62.83	62.13	56.50	55.22	55.58
Pork cutout	--	--	--	--	62.45	57.62	57.25	50.72	48.18	42.09
Pork loins, bone-in, 1/4 " trim, 14-19 lb.	126.99	138.73	128.75	85.99	113.13	106.51	105.90	97.23	99.63	79.90
Pork bellies, 12-14 lb.	43.04	69.96	73.91	53.77	63.10	68.46	72.99	57.49	42.05	39.13
Hams, bone-in, trimmed, 23-27 lb.	--	--	--	--	50.25	47.06	46.00	45.01	44.75	42.82
All fresh beef retail price	259.42	252.44	253.72	253.35	251.66	251.93	255.11	250.04	251.93	251.69
Commercial slaughter (1,000 head) ²										
Cattle	35,639	36,583	36,351	2,760	3,109	3,039	3,040	2,992	3,053	--
Steers	18,274	17,819	17,554	1,259	1,599	1,569	1,554	1,451	1,515	--
Heifers	10,399	10,756	11,538	864	967	929	950	987	1,069	--
Cows	6,281	7,274	6,563	584	488	489	483	500	528	--
Bull and stags	686	728	696	53	55	52	53	54	53	--
Calves	1,430	1,768	1,574	125	116	133	125	135	125	--
Sheep and lambs	4,560	4,184	3,911	310	294	281	275	306	323	--
Hogs	96,326	92,394	91,566	7,742	7,730	8,269	8,168	8,601	9,349	--
Barrows and gilts	91,683	88,224	88,253	7,431	7,391	7,902	7,822	8,255	9,000	--
Commercial production (mil. lb.)										
Beef	25,117	25,421	25,384	1,934	2,249	2,213	2,228	2,197	2,235	--
Veal	307	368	323	24	20	21	20	20	21	--
Lamb and mutton	284	265	257	20	19	18	17	19	20	--
Pork	17,810	17,084	17,245	1,473	1,444	1,529	1,505	1,591	1,757	--
	Annual			1997				1998		
	1995	1996	1997	I	II	III	IV	I	II	III
Hogs and pigs (U.S.) ³										
Inventory (1,000 head) ¹	59,990	58,264	56,141	56,141	55,838	58,263	61,163	60,915	60,070	61,600
Breeding (1,000 head) ¹	7,060	6,839	6,667	6,667	6,842	6,960	6,944	6,986	6,986	7,018
Market (1,000 head) ¹	52,930	51,425	49,474	49,474	48,996	51,303	54,219	53,929	53,084	54,582
Farrowings (1,000 head)	11,847	11,187	11,440	2,702	2,944	2,959	2,929	2,898	3,055	3,034
Pig crop (1,000 head)	98,515	94,956	98,972	23,264	25,471	25,796	25,315	25,164	26,714	--
Cattle on Feed, 7 states (1,000 head) ⁴										
Steers and Steer Calves	5,218	5,588	5,410	5,410	5,417	4,615	5,147	5,803	5,245	4,609
Heifers and Heifer Calves	2,785	3,005	3,455	3,455	3,431	3,026	3,383	3,615	3,325	3,191
Cows and Bulls	30	74	78	78	56	38	28	37	37	26

-- = Not available. 1. Beginning of period. 2. Classes estimated. 3. Quarters are Dec. of preceding year to Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 4. Beginning of period. The 7 states include AZ, CA, CO, IA, KS, NE, and TX. Information contact: Leland Southard (202) 694-5187

Crops & Products

Table 17—Supply & Utilization^{1,2}

	Area			Yield	Production	Total supply ⁴	Feed & residual	Other domestic use	Exports	Total use	Ending stocks	Farm price ⁵
	Set aside ³	Planted	Harvested									
	Mil. Acres		Bu./acre	Mil. bu.								\$/bu.
Wheat												
1994/95	5.2	70.3	61.8	37.6	2,321	2,981	344	942	1,188	2,475	507	3.45
1995/96	6.1	69.1	60.9	35.8	2,183	2,757	153	987	1,241	2,381	376	4.55
1996/97	--	75.6	62.9	36.3	2,285	2,753	314	995	1,001	2,310	444	4.30
1997/98*	--	71.0	63.6	39.7	2,527	3,065	293	1,010	1,040	2,342	722	3.38
1998/99*	--	66.2	59.1	43.3	2,557	3,370	375	1,018	1,150	2,543	827	2.60-2.80
	Mil. acres		lb./acre	Mil. cwt (rough equiv)								\$/cwt
Rice⁶												
1994/95	0.3	3.4	3.3	5,964.0	197.8	230.9	--	6/ 100.7	98.9	199.6	31.3	6.78
1995/96	0.5	3.1	3.1	5,621.0	173.9	212.6	--	6/ 104.6	83.0	187.6	25.0	9.15
1996/97	--	2.8	2.8	6,121.0	171.3	206.3	--	6/ 100.7	78.4	179.1	27.2	9.96
1997/98*	--	3.1	3.0	5,896.0	178.9	215.3	--	6/ 102.4	85.2	187.6	27.7	9.64
1998/99*	--	3.2	3.2	5,660.0	180.4	217.5	--	6/ 107.9	85.0	192.9	24.6	9.00-9.50
	Mil. acres		Bu./acre	Mil. bu.								\$/bu.
Corn												
1994/95	2.4	79.2	72.9	138.6	10,103	10,962	5,523	1,704	2,177	9,405	1,558	2.26
1995/96	7.7	71.2	65.0	113.5	7,374	8,948	4,682	1,612	2,228	8,522	426	3.24
1996/97	--	79.5	73.1	127.1	9,293	9,733	5,362	1,692	1,795	8,849	883	2.71
1997/98*	--	80.2	73.7	127.0	9,366	10,258	5,664	1,782	1,504	8,950	1,308	2.43
1998/99*	--	80.8	73.8	133.3	9,836	11,154	5,850	1,880	1,700	9,430	1,724	1.80-2.20
	Mil. acres		Bu./acre	Mil. bu.								\$/bu.
Sorghum												
1994/95	1.6	9.8	8.9	72.8	649	697	380	22	223	625	72	2.13
1995/96	1.7	9.5	8.3	55.6	460	532	297	19	198	514	18	3.19
1996/97	--	13.2	11.9	67.5	803	821	524	45	205	774	47	2.34
1997/98*	--	10.1	9.4	69.5	653	701	385	55	212	652	49	2.21
1998/99*	--	9.7	7.8	66.5	521	570	275	45	195	515	55	1.65-2.05
	Mil. acres		Bu./acre	Mil. bu.								\$/bu.
Barley												
1994/95	2.7	7.2	6.7	56.2	375	580	228	173	66	467	113	2.03
1995/96	2.9	6.7	6.3	57.3	360	513	179	172	62	413	100	2.89
1996/97	--	7.1	6.8	58.5	396	532	220	172	31	423	109	2.74
1997/98*	--	6.9	6.4	58.3	374	524	158	172	74	404	120	2.38
1998/99*	--	6.5	6.0	59.9	358	508	185	172	35	392	116	1.80-2.10
	Mil. acres		Bu./acre	Mil. bu.								\$/bu.
Oats												
1994/95	0.6	6.6	4.0	57.1	229	428	234	92	1	327	101	1.22
1995/96	0.8	6.3	3.0	54.7	162	343	183	92	2	277	66	1.67
1996/97	--	4.7	2.7	57.8	155	319	155	95	3	252	67	1.96
1997/98*	--	5.2	2.9	60.5	176	341	170	95	2	267	74	1.60
1998/99*	--	4.9	2.8	60.5	170	344	165	95	2	262	82	1.10-1.20
	Mil. acres		Bu./acre	Mil. bu.								\$/bu.
Soybeans⁷												
1994/95	--	61.7	60.9	41.4	2,517	2,731	153	1,405	838	2,396	335	5.48
1995/96	--	62.6	61.6	35.3	2,177	2,516	112	1,370	851	2,333	183	6.72
1996/97	--	64.2	63.4	37.6	2,382	2,575	126	1,436	882	2,443	131	7.35
1997/98*	--	70.6	69.6	38.8	2,703	2,839	172	1,597	870	2,639	200	6.48
1998/99*	--	72.7	71.6	38.6	2,763	2,968	148	1,605	840	2,593	375	5.15-5.75
	Mil. acres		Bu./acre	Mil. lbs.								¢/lb.
Soybean oil												
1994/95	--	--	--	--	15,613	16,733	--	12,916	2,680	15,597	1,137	27.58
1995/96	--	--	--	--	15,240	16,472	--	13,465	992	14,457	2,015	24.75
1996/97	--	--	--	--	15,752	17,821	--	14,263	2,037	16,300	1,520	22.50
1997/98*	--	--	--	--	18,143	19,724	--	15,264	3,077	18,341	1,382	25.84
1998/99*	--	--	--	--	18,135	19,575	--	15,350	2,700	18,050	1,525	25.00-27.50
	Mil. acres		Bu./acre	1,000 tons								\$/ton ⁸
Soybean meal												
1994/95	--	--	--	--	33,270	33,483	--	26,542	6,717	33,260	223	162.6
1995/96	--	--	--	--	32,527	32,826	--	26,611	6,002	32,613	212	236.0
1996/97	--	--	--	--	34,210	34,524	--	27,320	6,994	34,314	210	270.9
1997/98*	--	--	--	--	38,171	38,436	--	28,888	9,330	38,218	218	185.5
1998/99*	--	--	--	--	38,057	38,325	--	29,600	8,500	38,100	225	135-155

See footnotes at end of table, next page

Table 17—Supply & Utilization (continued)

	Area					Total Supply ⁴	Feed & residual	Other domestic use	Exports	Total Use	Ending stocks	Farm price ⁵
	Set aside ³	Planted	Harvested	Yield	Production							
	<i>Mil. Acres</i>			<i>Lb./acre</i>								
Cotton ⁹								<i>Mil. Bales</i>				<i>¢/lb.</i>
1994/95	1.7	13.7	13.3	709	19.7	23.2	--	11.2	9.4	20.6	2.7	72.0
1995/96	0.3	16.9	16.0	537	17.9	21.0	--	10.6	7.7	18.3	2.6	75.4
1996/97	--	14.6	12.9	707	18.9	22.0	--	11.1	6.9	18.0	4.0	69.3
1997/98*	--	13.8	13.3	680	18.8	22.8	--	11.3	7.5	18.8	3.9	65.2
1998/99*	--	12.9	10.4	621	13.5	17.7	--	10.6	4.3	14.9	2.8	--

-- = Not available or not applicable. *December 11, 1998 Supply and Demand Estimates. 1. Marketing year beginning June 1 for wheat, barley, and oats; August 1 for cotton and rice; September 1 for soybeans, corn, and sorghum; October 1 for soybean meal and soybean oil. 2. Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3. Includes diversion, acreage reduction, 50-92, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage and acreage planted to minor oilseeds, sesame, and crambe. 4. Includes imports. 5. Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding and government purchases. 6. Residual included in domestic use. 7. Includes seed. 8. Simple average of 48 percent, Decatur. 9. Upland and extra-long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply and use estimates and changes in ending stocks. *Information contacts: Wheat, rice, feed grains, Jenny Gonzales (202) 694-5296; soybeans, soybean products, and cotton, Mae Dean Johnson (202) 694-5299*

Table 18—Cash Prices, Selected U.S. Commodities

	Marketing year ¹			1997		1998				
	1995/96	1996/97	1997/98	Oct	May	Jun	Jul	Aug	Sep	Oct
Wheat, no. 1 HRW, Kansas City (\$/bu.) ²	5.49	4.88	3.71	3.88	3.41	3.16	3.02	2.74	2.81	3.30
Wheat, DNS, Minneapolis (\$/bu.) ³	5.72	4.96	4.31	4.35	4.24	4.01	3.89	3.58	3.53	4.03
Rice, S.W. La. (\$/cwt) ⁴	18.90	20.34	18.92	18.94	18.31	18.50	18.50	18.35	17.50	17.50
Corn, no. 2 yellow, 30-day, Chicago (\$/bu.) ⁵	3.97	2.84	2.56	2.76	2.50	2.44	2.27	1.97	1.84	2.00
Sorghum, no. 2 yellow, Kansas City (\$/cwt) ⁵	6.66	4.54	4.11	4.36	4.09	4.03	3.74	3.27	2.98	3.17
Barley, feed, Duluth (\$/bu.)	2.67	2.32	1.90	2.05	--	--	1.23	--	--	--
Barley, malting Minneapolis (\$/bu.)	3.69	3.18	2.50	2.74	--	--	--	2.30	--	--
U.S. cotton price, SLM, 1-1/16 in. (¢/lb.) ⁶	83.00	71.60	67.79	69.46	65.21	73.50	74.18	71.87	71.75	67.61
Northern Europe prices cotton index (¢/lb.) ⁷	85.60	78.66	72.11	77.56	64.61	68.06	69.36	68.13	66.16	61.12
U.S. M 1-3/32 in. (¢/lb.) ⁸	94.70	82.86	77.98	80.50	73.06	80.63	81.35	76.94	77.75	72.95
Soybeans, no. 1 yellow, 30-day Chicago (\$/bu)	6.72	7.38	6.51	6.75	6.42	6.31	6.26	5.31	5.01	5.26
Soybean oil, crude, Decatur (¢/lb.)	24.75	22.50	24.69	24.31	28.27	25.83	24.88	23.99	25.13	25.21
Soybean meal, 48% protein, Decatur (\$/ton)	236.00	270.90	276.78	229.30	160.00	168.60	183.40	146.25	135.80	135.70

-- = No quotes. 1. Beginning June 1 for wheat and barley; Aug. 1 for rice and cotton; September 1 for corn, sorghum, and soybeans; October 1 for soybean meal and oil. 2. Ordinary protein. 3. 14 percent protein. 4. Long grain, milled basis. 5. Marketing year 1997/98 data are preliminary. 6. Average spot market. 7. Liverpool Cotlook "A" Index; average of 5 lowest prices of 13 selected growths. 8. Cotton, Memphis territory growths. *Information contacts: Wheat, rice, and feed, Jenny Gonzales (202) 694-5296; soybeans, soybean products, and cotton, Mae Dean Johnson (202) 694-5299*

Table 19—Farm Programs, Price Supports, Participation, & Payment Rates

	Target price	Basic loan rate	Findley or announced loan rate ¹	Total deficiency payment rate	Effective base acres ²	Program ³	Flexibility contract payment rate	Acres under contract	Contract payment yields	Participation rate ⁴
		\$/bu.			Mil. acres	Percent of base	\$/bu.	Mil. acres	Bu./cwt	Percent
Wheat										
1994/95	4.00	2.72	2.58	0.61	78.10	0/0/0	--	--	--	87
1995/96	4.00	2.69	2.58	0.00	77.70	0/0/0	--	--	--	85
1996/97	--	--	2.58	--	--	--	0.874	76.7	34.70	99
1997/98	--	--	2.58	--	--	--	0.631	76.7	34.70	--
1998/99 ⁵	--	--	2.58	--	--	--	0.663	78.9	34.50	--
		\$/cwt					\$/cwt			
Rice										
1994/95	10.71	6.50	5.88 ⁶	3.79	4.20	0/0/0	--	--	--	95
1995/96	10.71	6.50	6.50 ⁶	3.22 ⁷	4.20	5/0/0	--	--	--	95
1996/97	--	6.50	--	--	--	--	2.766	4.2	48.27	99
1997/98	--	6.50	--	--	--	--	2.710	4.2	48.17	--
1998/99 ⁵	--	6.50	--	--	--	--	2.921	4.2	48.17	--
		\$/bu.					\$/bu.			
Corn										
1994/95	2.75	1.99	1.89	0.57	81.50	0/0/0	--	--	--	81
1995/96	2.75	1.94	1.89	0.00	81.80	7.5/0/0	--	--	--	82
1996/97	--	--	1.89	--	--	--	0.251	80.7	102.90	98
1997/98	--	--	1.89	--	--	--	0.486	80.9	102.80	--
1998/99 ⁵	--	--	1.89	--	--	--	0.377	82.0	102.60	--
		\$/bu.					\$/bu.			
Sorghum										
1994/95	2.61	1.89	1.80	0.59	13.50	0/0/0	--	--	--	81
1995/96	2.61	1.84	1.80	0.00	13.30	0/0/0	--	--	--	77
1996/97	--	--	1.81	--	--	--	0.323	13.1	57.30	99
1997/98	--	--	1.76	--	--	--	0.544	13.1	57.30	--
1998/99 ⁵	--	--	1.74	--	--	--	0.452	13.6	56.90	--
		\$/bu.					\$/bu.			
Barley										
1994/95	2.36	1.62	1.54	0.52	10.70	0/0/0	--	--	--	84
1995/96	2.36	1.58	1.54	0.00	10.70	0/0/0	--	--	--	82
1996/97	--	--	1.55	--	--	--	0.332	10.5	47.30	99
1997/98	--	--	1.57	--	--	--	0.277	10.5	47.20	--
1998/99 ⁵	--	--	1.56	--	--	--	0.284	11.2	46.70	--
		\$/bu.					\$/bu.			
Oats										
1994/95	1.45	1.02	0.97	0.19	6.80	0/0/0	--	--	--	40
1995/96	1.45	1.00	0.97	0.00	6.50	0/0/0	--	--	--	44
1996/97	--	--	1.03	--	--	--	0.033	6.2	50.80	97
1997/98	--	--	1.11	--	--	--	0.031	6.2	50.80	--
1998/99 ⁵	--	--	1.11	--	--	--	0.031	6.5	50.70	--
		\$/bu.					\$/bu.			
Soybeans⁸										
1994/95	--	--	4.92	--	--	--	--	--	--	--
1995/96	--	--	4.92	--	--	--	--	--	--	--
1996/97	--	--	4.97	--	--	--	--	--	--	--
1997/98	--	--	5.26	--	--	--	--	--	--	--
1998/99	--	--	5.26	--	--	--	--	--	--	--
		¢/lb.					¢/lb.			
Upland cotton										
1994/95	72.90	50.00	50.00 ⁹	4.60	15.30	11/0/0	--	--	--	89
1995/96	72.90	51.92	51.92 ⁹	0.00 ⁷	15.50	0/0/0	--	--	--	79
1996/97	--	51.92	--	--	--	--	8.882	16.2	610.00	99
1997/98	--	51.92	--	--	--	--	7.625	16.2	608.00	--
1998/99 ⁵	--	51.92	--	--	--	--	8.173	16.4	604.00	--

-- = Not available. 1. There are no Findley loan rates for rice or cotton. See footnotes 5 and 7. 2. Prior to 1996, national effective crop acreage base as determined by FSA. Net of CRP. 3. Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acres idled must be devoted to a conserving use to receive program benefits. 4. Percentage of effective base enrolled in acreage reduction programs. Starting in 1996, participation rate is the percent of eligible acres that entered production flexibility contracts. 5. Estimated payment rates and acres under contract. 6. A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price(announced weekly). Loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to marketing-year average loan repayment rates. Beginning with the 1996 crop, loans are repaid at the lower of the loan rate plus accumulated interest or the adjusted world price. 7. Guaranteed payment rates for producers in the 50/85/92 program were \$0.034/lb. for upland cotton and \$4.21/cwt. for rice. 8. There are no target prices, base acres, acreage reduction programs or deficiency payment rates for soybeans. 9. A marketing loan has been in effect for cotton since 1986/87. In 1987/88 and after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. Beginning with the 1996 crop, loans are repaid at the lower of the loan rate plus accumulated interest or the adjusted world price. Note: The 1996 Act replaced target prices and deficiency payments with fixed annual payments to producers. Information contact: Brenda Chewing, Farm Service Agency (202) 720-8838

Table 20—Fruit

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Citrus ¹										
Production (1,000 tons)	13,186	10,860	11,285	12,452	15,274	14,561	15,799	15,712	17,247	18,029
Per capita consumpt. (lb.) ²	23.6	21.4	19.1	24.4	26.0	25.0	24.1	25.0	26.8	--
Noncitrus ³										
Production (1,000 tons)	16,345	15,640	15,740	17,124	16,563	17,341	16,358	16,114	18,390	--
Per capita consumpt. (lb.) ²	72.8	70.4	70.6	73.8	73.9	75.6	73.7	74.0	76.0	--
	1997					1998				
	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Grower prices										
Apples (¢/pound) ⁴	23.0	21.3	19.2	18.2	16.3	16.1	19.0	22.7	22.8	18.1
Pears (¢/pound) ⁴	17.60	12.15	14.60	18.65	17.65	20.25	22.85	21.00	23.95	19.90
Oranges (\$/box) ⁵	2.41	5.14	5.79	5.86	6.70	6.71	5.37	4.97	5.42	5.87
Grapefruit (\$/box) ⁵	2.49	1.03	1.36	0.42	3.58	3.66	6.01	11.09	3.88	3.19
Stocks, ending										
Fresh apples (mil. lb.)	5,165	2,277	1,626	1,113	637	322	133	3,455	6,506	--
Fresh pears (mil. lb.)	446	125	61	32	4	0	94	534	478	--
Frozen fruits (mil. lb.)	1,356	882	808	764	836	1,040	1,032	1,050	1,282	--
Frozen conc. orange juice (mil. single-strength gallons)	496	826	1,010	1,066	999	914	827	733	626	--

-- = Not available. 1. Year shown is when harvest concluded. 2. Fresh per capita consumption. 3. Calendar year. 4. Fresh use. 5. U.S. equivalent on-tree returns. Information contact: Susan Pollack (202) 694-5251

Table 21—Vegetables

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Production ¹										
Total vegetables (1,000 cwt)	543,435	562,938	565,754	677,975	675,793	762,934	742,595	759,347	752,266	--
Fresh (1,000 cwt) ^{2,4}	254,418	254,039	242,733	393,249	377,698	396,671	391,699	408,823	428,171	--
Processed (tons) ^{3,4}	14,450,860	15,444,970	16,151,030	14,236,320	14,904,750	18,313,150	17,544,780	17,526,190	16,204,740	--
Mushrooms (1,000 lbs) ⁵	714,992	749,151	746,832	776,357	750,799	782,340	777,870	776,677	808,602	--
Potatoes (1,000 cwt)	370,444	402,110	417,622	425,367	428,693	467,054	443,606	498,633	465,537	470,965
Sweetpotatoes (1,000 cwt)	11,358	12,594	11,203	12,005	11,053	13,395	12,906	13,456	13,512	--
Dry edible beans (1,000 cwt)	23,729	32,379	33,765	22,615	21,913	29,028	30,812	27,960	29,156	31,070
	1997					1998				
	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Shipments (1,000 cwt)										
Fresh	19,181	20,292	28,362	28,082	29,181	26,104	18,422	18,851	15,727	18,842
Iceberg lettuce	3,035	3,094	4,125	3,628	3,377	4,021	3,099	3,900	3,049	3,179
Tomatoes, all	2,977	3,647	4,767	3,540	3,031	2,858	2,667	2,927	2,568	2,719
Dry-bulb onions	3,795	2,753	4,009	3,584	3,006	3,255	3,278	3,783	3,049	3,084
Others ⁶	9,374	10,798	15,461	17,330	19,767	15,970	9,378	8,241	7,061	9,860
Potatoes, all	13,788	15,619	23,416	14,554	11,965	12,734	9,569	12,695	11,498	11,548
Sweetpotatoes	363	252	373	213	147	140	96	289	326	738

-- = Not available. 1. Calendar year except mushrooms. 2. Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes through 1991. 3. Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, and cauliflower. 4. Data after 1991 not comparable to previous years because commodity estimates reinstated in 1992 are included. 5. Fresh and processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1- June 30. 6. Includes snap beans, broccoli, cabbage, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, honeydews, and watermelons. Information contact: Gary Lucier (202) 694-5253

Table 22—Other Commodities

	Annual			1997				1998		
	1995	1996	1997	I	II	III	IV	I	II	III
Sugar										
Production ¹	7,978	7,268	7,418	2,075	679	576	4,088	2,376	824	733
Deliveries ¹	9,451	9,633	9,764	2,215	2,430	2,642	2,469	2,261	2,465	2,616
Stocks, ending ¹	2,908	3,195	3,376	3,901	2,734	1,487	3,195	3,917	2,881	1,675
Coffee										
Composite green price ² N.Y. (¢/lb.)	142.18	109.35	146.49	134.80	172.99	143.29	134.89	143.58	117.73	98.57
	Annual			1998						
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Tobacco										
Avg. price to grower ³										
Flue-cured (\$/lb.)	1.79	1.83	1.73	1.76	0	2	1.62	1.79	1.87	1.81
Burley (\$/lb.)	1.85	1.92	1.86	2						
Domestic taxable removals										
Cigarettes (bil.)	490.3	486.0	471.4	35.3	42.6	0.0	0	0	0	0
Large cigars (mil.) ⁴	2,561.7	3,166.4	3,552.9	323.4	338.0	0.0	0	0	0	0

-- = Not available. 1. 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2. Net imports of green and processed coffee. 3. Crop year July-June for flue-cured, October-September for burley. 4. Includes imports of large cigars. Information contacts: sugar, Fannye Jolly (202) 694-5249; tobacco, Tom Capehart (202) 694-5245

World Agriculture

Table 23—World Supply & Utilization of Major Crops, Livestock & Products

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99 F
	<i>Million units</i>									
Wheat										
Area (hectares)	225.8	231.4	222.5	223.1	222.4	215.5	219.8	231.2	229.9	225.9
Production (metric tons)	533.2	588.0	542.9	562.2	559.4	525.2	538.1	582.9	611.0	585.8
Exports (metric tons) ¹	103.8	101.1	111.2	113.0	101.4	100.8	99.1	101.4	100.8	97.8
Consumption (metric tons) ²	532.7	561.9	555.5	550.2	562.3	548.4	550.8	577.4	585.7	599.4
Ending stocks (metric tons) ³	118.9	145.1	132.5	144.5	141.5	118.4	105.7	111.3	136.6	123.0
Coarse grains										
Area (hectares)	321.9	316.3	321.9	323.8	317.5	323.2	313.6	322.8	312.2	308.6
Production (metric tons)	793.7	828.7	810.5	871.9	799.5	873.2	802.0	908.0	886.5	882.2
Exports (metric tons) ¹	104.7	89.1	95.6	91.9	85.3	98.5	88.1	93.3	86.5	87.8
Consumption (metric tons) ²	817.7	817.1	809.7	843.8	839.2	859.8	840.8	879.6	878.0	879.0
Ending stocks (metric tons) ³	123.2	134.8	135.6	163.6	123.8	137.2	98.4	126.7	135.2	138.4
Rice, milled										
Area (hectares)	146.5	146.6	147.4	146.7	145.5	147.9	148.1	149.7	149.6	149.4
Production (metric tons)	343.9	352.0	354.7	355.8	355.6	364.8	371.2	380.2	384.1	377.4
Exports (metric tons) ¹	11.7	12.1	14.1	14.9	16.4	21.0	19.6	19.0	25.7	21.4
Consumption (metric tons) ²	338.2	347.4	356.4	357.9	358.7	366.9	371.5	379.3	383.0	385.4
Ending stocks (metric tons) ³	54.5	59.1	57.5	55.3	52.2	50.1	49.9	50.8	52.0	43.9
Total grains										
Area (hectares)	694.2	694.3	691.8	693.6	685.4	686.6	681.5	703.7	691.7	683.9
Production (metric tons)	1,670.8	1,768.7	1,708.1	1,789.9	1,714.5	1,763.2	1,711.3	1,871.1	1,881.6	1,845.4
Exports (metric tons) ¹	220.2	202.3	220.9	219.8	203.1	220.3	206.8	213.7	213.0	207.0
Consumption (metric tons) ²	1,688.6	1,726.4	1,721.6	1,751.9	1,760.2	1,775.1	1,763.1	1,836.3	1,846.7	1,863.8
Ending stocks (metric tons) ³	296.6	339.0	325.6	363.4	317.5	305.7	254.0	288.8	323.8	305.3
Oilseeds										
Crush (metric tons)	171.7	176.7	185.1	184.4	190.1	208.1	217.5	218.8	228.9	235.5
Production (metric tons)	212.4	215.7	224.3	227.5	229.4	261.8	258.5	261.2	285.6	288.0
Exports (metric tons)	35.6	33.4	37.6	38.2	38.7	44.1	44.4	49.4	53.7	53.4
Ending stocks (metric tons)	23.7	23.4	21.9	23.6	20.3	27.2	22.1	16.4	22.2	25.3
Meals										
Production (metric tons)	116.8	119.3	125.2	125.2	131.7	142.1	147.4	149.1	155.8	161.1
Exports (metric tons)	39.8	40.7	42.2	40.8	44.9	46.7	49.7	50.3	51.5	54.8
Oils										
Production (metric tons)	57.1	58.1	60.6	61.1	63.7	69.6	73.2	75.6	76.3	79.9
Exports (metric tons)	20.4	20.5	21.3	21.3	24.3	27.1	26.0	28.9	29.4	30.1
Cotton										
Area (hectares)	31.6	33.2	34.8	32.6	30.6	32.2	35.9	33.8	33.5	32.7
Production (bales)	79.7	87.1	95.7	82.5	76.7	85.6	93.0	89.6	91.4	84.2
Exports (bales)	31.3	29.6	28.5	25.5	26.8	28.4	27.8	26.8	26.5	24.6
Consumption (bales)	86.9	85.5	85.9	85.8	85.3	85.5	86.9	88.3	88.1	85.8
Ending stocks (bales)	25.3	27.8	37.6	35.1	27.0	29.0	34.6	37.8	41.1	39.3
	1990	1991	1992	1993	1994	1995	1996	1997	1998 F	1999 F
Red meat⁴										
Production (metric tons)	116.9	117.7	117.3	119.3	124.6	130.2	135.5	137.4	133.2	--
Consumption (metric tons)	114.8	116.1	115.7	118.3	123.5	128.7	132.8	135.1	130.1	--
Exports (metric tons) ¹	7.5	7.5	7.4	7.4	8.1	8.2	8.5	8.6	7.6	--
Poultry⁴										
Production (metric tons)	37.6	39.6	38.0	40.5	43.9	47.7	50.5	52.7	53.7	55.6
Consumption (metric tons)	36.5	38.4	37.0	39.4	42.5	46.2	48.8	50.8	51.8	53.7
Exports (metric tons) ¹	2.4	2.8	2.4	2.8	3.7	4.6	5.3	5.7	5.5	5.5
Dairy										
Milk production (metric tons) ⁵	395.0	377.6	378.4	377.6	378.4	380.8	379.8	381.2	384.3	--

F = forecast. 1. Excludes intra-EU trade but includes intra-FSU trade. 2. Where stocks data are not available, consumption includes stock changes. 3. Stocks data are based on differing marketing years and do not represent levels at a given date. Data not available for all countries. 4. Calendar year data. 1990 data correspond with 1989/90, etc. 5. Data prior to 1989 no longer comparable.

Information contacts: Crops, Ed Allen (202) 694-5288; red meat and poultry, Leland Southard (202) 694-5187; dairy, LaVerne Williams (202) 694-5190

U.S. Agricultural Trade

Table 24—Prices of Principal U.S. Agricultural Trade Products

	Annual			1997			1998			
	1995	1996	1997	Nov	Jun	Jul	Aug	Sep	Oct	Nov
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	4.82	5.63	4.35	4.09	3.28	3.21	2.96	2.94	3.43	3.57
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	3.13	4.17	2.98	2.99	2.65	2.56	2.25	2.19	2.43	2.47
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	3.13	3.90	2.89	2.90	2.56	2.51	2.34	2.16	2.29	2.37
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	6.50	7.88	7.94	7.48	6.59	6.57	5.83	5.62	5.73	6.01
Soybean oil, Decatur (¢/lb.)	26.75	23.75	23.33	25.73	25.83	24.88	24.00	25.14	25.21	25.21
Soybean meal, Decatur, (\$/ton)	173.70	246.67	266.70	245.34	168.55	183.45	146.15	135.83	135.70	144.45
Cotton, 7-market avg. spot (¢/lb.)	93.45	77.93	69.62	65.35	73.50	74.18	71.87	71.77	67.61	64.98
Tobacco, avg. price at auction (¢/lb.)	178.79	183.20	182.74	184.46	---	162.96	159.51	179.06	186.53	181.01
Rice, f.o.b., mill, Houston (\$/cwt)	16.68	19.64	20.88	19.75	19.00	19.00	18.85	18.75	18.25	18.50
Inedible tallow, Chicago (¢/lb.)	19.22	20.13	20.75	22.88	19.63	17.31	17.57	16.22	16.98	16.90
Import commodities										
Coffee, N.Y. spot (\$/lb.)	1.45	1.29	2.05	1.60	1.30	1.20	1.28	1.13	1.11	1.23
Rubber, N.Y. spot (¢/lb.)	82.52	72.88	55.40	48.14	41.26	40.03	38.58	38.66	40.26	39.99
Cocoa beans, N.Y. (\$/lb.)	0.61	0.62	0.69	0.73	0.74	0.73	0.72	0.72	0.71	0.67

Information contact: Mary Teymourian (202) 694-5173 or maryt@econ.ag.gov

Table 25—Trade Balance

	Fiscal Year			1997			1998			
	1997	1998	1999 F	Oct	May	Jun	Jul	Aug	Sep	Oct
\$ million										
Exports										
Agricultural	57,365	53,730	50,500	5,534	4,249	3,928	3,971	3,884	3,467	4,859
Nonagricultural	569,892	584,077	--	52,322	48,774	49,191	44,054	45,692	48,056	51,298
Total ¹	627,257	637,807	--	57,856	52,702	53,162	47,938	49,396	51,523	56,157
Imports										
Agricultural	35,798	37,014	38,500	3,053	2,981	3,099	2,908	2,857	2,921	3,124
Nonagricultural	829,548	859,730	--	77,904	70,193	73,577	72,818	72,688	74,752	80,559
Total ²	865,346	896,744	--	80,957	73,174	76,676	75,726	75,545	77,673	83,683
Trade Balance										
Agricultural	21,567	16,716	12,000	2,481	947	872	976	847	546	1,735
Nonagricultural	-259,656	-275,653	--	-25,582	-21,419	-24,386	-28,764	-26,996	-26,696	-29,261
Total	-238,089	-258,937	--	-23,101	-20,472	-23,514	-27,788	-26,149	-26,150	-27,526

F = Forecast. . -- = Not available. Fiscal year (Oct. 1-Sep. 30). 1. Domestic exports including Department of Defense shipments (F.A.S. Value). 2. Imports for consumption (customs value). Information contact: Mary Fant (202) 694-5272

Table 26—Indexes of Real Trade-Weighted Dollar Exchange Rates¹

	Annual		1997			1998				
	1995	1996	1997	Sep	Apr P	May P	Jun P	Jul P	Aug P	Sep P
	1990=100									
Total U.S. trade	96.2	100.8	111.9	112.8	115.6	117.3	118.1	118.9	113.4	109.3
Agricultural trade										
U.S. markets	97.3	101.0	109.6	106.9	115.2	117.7	117.6	120.0	118.7	114.6
U.S. competitors	97.4	98.7	109.1	110.6	114.2	116.2	116.3	116.3	112.1	108.8
High-valued products										
U.S. markets	95.2	100.4	108.2	104.6	111.3	114.0	114.5	117.3	114.9	111.4
U.S. competitors	98.3	100.1	110.9	112.7	115.0	116.5	116.6	116.9	112.5	109.1
Corn										
U.S. markets	89.1	96.4	107.1	103.2	114.5	118.0	118.1	120.6	116.9	109.9
U.S. competitors	88.8	90.1	97.4	98.7	100.7	101.4	102.1	102.0	99.1	96.9
Soybeans										
U.S. markets	91.1	96.0	107.9	105.8	114.6	117.6	117.1	118.2	114.7	109.0
U.S. competitors	81.3	80.8	82.2	82.9	85.0	85.1	85.2	85.4	85.2	85.3
Wheat										
U.S. markets	100.4	100.7	105.4	105.3	112.1	113.3	113.1	114.5	115.1	112.2
U.S. competitors	100.8	102.1	109.8	111.3	115.4	117.1	117.5	119.4	116.7	114.6
Vegetables										
U.S. markets	102.2	105.6	112.4	109.8	116.5	118.9	119.7	122.8	121.2	119.1
U.S. competitors	99.1	100.5	112.0	112.8	114.4	115.9	116.0	116.0	111.7	108.5
Red meats										
U.S. markets	84.8	93.3	100.4	99.0	109.7	113.5	113.7	116.9	112.8	106.2
U.S. competitors	96.3	98.0	107.9	109.7	113.2	114.9	114.9	115.6	111.7	108.3
Fruits & fruit juices										
U.S. markets	96.2	101.3	111.3	106.9	113.6	116.1	117.0	119.7	116.7	113.2
U.S. competitors	98.2	98.2	107.2	108.9	111.6	113.2	113.9	114.2	110.7	107.6
Cotton										
U.S. markets	93.6	95.5	105.7	105.7	124.9	130.3	127.9	126.8	123.9	117.0
U.S. competitors	104.6	101.6	103.0	104.5	106.8	108.0	108.0	108.5	108.2	105.7
Poultry										
U.S. markets	107.3	102.8	111.9	101.9	104.5	106.2	106.4	109.1	118.1	117.3
U.S. competitors	93.9	95.7	107.3	108.9	109.7	111.3	111.4	111.5	107.7	104.6

P = preliminary. 1. Real indexes adjust nominal exchange rates to avoid the distortion caused by different levels of inflation among countries. A higher value means the dollar has appreciated. "Total U.S. Trade" Index uses the Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major countries. Weights are based on relative importance of major U.S. customers and competitors in world markets. Indexes are subject to revision for up to one year due to delayed reporting by some countries. High-value products conform to FASIS definition for consumer-oriented agricultural products. Data are available at <http://mann77.mannlib.cornell.edu/data-sets/international/88021/>. Information contact: Tim Baxter (202) 694-5318 or Andy Jerardo (202) 694-5323

Note: The above indices have been recently revised to reflect a rebasing of the Russian Ruble and to correct errors in the CPI data for Hong Kong and Taiwan. The complete corrected series is available at the above URL.

Table 27—U.S. Agricultural Exports & Imports

	Fiscal Year			Oct		Fiscal Year			Oct	
	1997	1998	1999 P	1997	1998	1997	1998	1999 P	1997	1998
	1,000 units					\$ million				
EXPORTS										
Animals, live (no.) ¹	1,336	1,563	--	202	94	508	538	--	93	89
Meats and preps., excl. poultry (mt) ²	1,823	2,064	1,700	173	173	4,438	4,507	4,500	414	363
Dairy products (mt)	102	142	--	10	10	869	925	900	73	78
Poultry meats (mt)	2,553	2,663	2,300	243	176	2,516	2,347	1,800	216	160
Fats, oils, and greases (mt)	1,056	1,365	1,300	97	122	543	655	--	49	54
Hides and skins, incl. furskins	--	--	--	--	--	1,693	1,358	1,500	129	96
Cattle hides, whole (no.) ¹	20,761	18,992	--	1,589	1,609	1,232	969	--	91	77
Mink pelts (no.) ¹	3,600	2,990	--	165	78	96	83	--	5	3
Grains and feeds (mt) ³	95,091	87,289	--	7,635	9,103	16,368	13,961	13,900	1,297	1,308
Wheat (mt) ⁴	24,526	25,791	31,500	2,424	2,970	4,117	3,759	4,200	382	359
Wheat flour (mt)	511	465	500	50	75	141	117	--	13	14
Rice (mt)	2,560	3,310	3,000	236	534	959	1,132	1,000	92	149
Feed grains, incl. products (mt) ⁵	53,796	44,564	48,200	3,777	4,371	7,166	5,187	4,700	459	433
Feeds and fodders (mt)	12,295	11,704	11,900	1,013	990	2,688	2,421	2,300	228	214
Other grain products (mt)	1,404	1,455	--	134	163	1,295	1,345	--	123	139
Fruits, nuts, and preps. (mt)	3,830	3,633	--	348	363	4,261	3,977	4,300	468	448
Fruit juices, incl.										
froz. (1,000 hectoliters) ¹	10,455	10,658	--	732	825	658	653	--	46	50
Vegetables and preps. (mt)	3,294	3,457	--	267	299	4,081	4,168	2,800	355	379
Tobacco, unmanufactured (mt)	238	208	--	16	8	1,612	1,448	1,400	132	81
Cotton, excl. linters (mt) ⁶	1,566	1,552	1,000	87	58	2,711	2,517	1,600	147	90
Seeds (mt)	1,200	816	--	68	56	913	827	900	67	55
Sugar, cane or beat (mt) ¹	139	123	--	8	27	60	48	--	4	9
Oilseeds and products (mt)	33,808	35,966	35,100	5,406	4,771	11,288	10,984	9,300	1,597	1,165
Oilseeds (mt)	24,735	24,251	--	4,701	3,849	7,875	6,818	--	1,316	872
Soybeans (mt)	24,027	23,287	23,100	4,634	3,686	6,950	6,117	5,100	1,226	778
Protein meal (mt)	6,671	8,666	--	465	685	1,795	1,975	--	118	113
Vegetable oils (mt)	2,402	3,049	--	239	237	1,618	2,191	--	163	179
Essential oils (mt)	46	46	--	4	3	619	533	--	44	40
Other	362	329	--	33	32	4,228	4,284	--	404	393
Total	145,109	139,653	149,800	14,394	15,202	57,365	53,730	50,500	5,534	4,859
IMPORTS										
Animals, live (no.) ¹	4,989	6,177	--	507	548	1,525	1,670	1,400	166	167
Meats and preps., excl. poultry (mt)	1,140	1,230	1,200	88	108	2,583	2,718	2,800	209	241
Beef and veal (mt)	785	857	--	56	68	1,552	1,761	--	120	148
Pork (mt)	260	271	--	24	30	766	686	--	67	66
Dairy products (mt)	265	292	--	24	32	1,273	1,368	1,400	112	146
Poultry and products ¹	--	--	--	--	--	186	207	--	20	16
Fats, oils, and greases (mt)	76	80	--	7	6	58	59	--	5	5
Hides and skins, incl. furskins (mt)	--	--	--	--	--	210	184	--	14	9
Wool, unmanufactured (mt)	38	45	--	5	4	131	151	--	18	13
Grains and feeds (mt)	7,639	7,051	6,500	663	634	2,941	2,919	3,000	296	289
Fruits, nuts, and preps., excl. juices (mt) ⁷	7,121	7,581	8,000	538	509	3,773	3,982	4,900	282	279
Bananas and plantains (mt)	3,950	4,175	4,100	338	326	1,218	1,214	1,300	95	90
Fruit juices (1,000 hectoliters) ¹	29,829	26,577	26,600	2,200	2,158	913	669	--	59	52
Vegetables and preps. (mt)	4,122	4,684	--	284	320	3,604	4,249	4,500	270	315
Tobacco, unmanufactured (mt)	337	241	200	20	18	1,179	822	900	73	78
Cotton, unmanufactured (mt)	27	10	--	2	1	34	11	--	2	0
Seeds (mt)	223	254	--	10	11	357	419	--	24	27
Nursery stock and cut flowers ¹	--	--	--	--	--	974	1,082	1,100	88	88
Sugar, cane or beet (mt)	2,938	2,170	2,100	117	134	1,013	758	--	40	53
Oilseeds and products (mt)	3,780	4,314	4,300	367	306	2,248	2,243	2,400	194	176
Oilseeds (mt)	985	1,028	--	85	51	374	371	--	30	19
Protein meal (mt)	967	1,277	--	112	94	181	188	--	17	12
Vegetable oils (mt)	1,828	2,010	--	170	161	1,693	1,684	--	147	145
Beverages, excl. fruit juices (1,000 hectoliters) ¹	20,426	22,959	--	1,966	2,094	3,247	3,705	--	380	406
Coffee, tea, cocoa, spices (mt)	2,305	2,374	--	165	192	5,778	6,066	--	479	450
Coffee, incl. products (mt)	1,212	1,155	1,200	78	97	3,698	3,587	3,900	276	226
Cocoa beans and products (mt)	767	875	1,000	61	63	1,414	1,701	1,900	134	138
Rubber and allied gums (mt)	1,075	1,162	1,200	89	107	1,315	1,027	1,300	93	77
Other	--	--	--	--	--	2,458	2,703	--	230	237
Total	--	--	--	--	--	35,798	37,014	--	3,053	3,124

P = Projection. -- = Not available. Projections are fiscal year (October 1 through September 30) and are from Outlook for U.S. Agricultural Exports.

1997 and 1998 data are from *Foreign Agricultural Trade of the U.S.* 1. Not included in total volume. 2. Projection includes beef, pork, and variety meat.

3. Projection includes pulses. 4. Projection includes wheat flour. 5. Projection excludes grain products. 6. Projection includes linters. 7. Projection

includes juice. NOTE: Totals include transshipments through Canada, but transshipments are not distributed by commodity as previously.

NOTE: Adjusted transshipments through Canada for 1997 exports. Information Contact: Mary Fant (202) 694-5272

Table 28—U.S. Agricultural Exports by Region

	Fiscal Year			1998						
	1997	1998	1999 F	Oct	May	Jun	Jul	Aug	Sep	Oct
	\$ million									
Region & country										
WESTERN EUROPE	9,617	8,844	8,500	1,121	547	517	459	456	479	804
European Union ¹	8,997	8,508	8,300	1,061	525	501	435	439	451	764
Belgium-Luxembourg	715	666	--	100	51	43	38	34	58	68
France	557	538	--	62	30	25	25	25	21	60
Germany	1,376	1,294	--	143	92	87	72	80	76	104
Italy	792	722	--	64	43	40	21	26	32	81
Netherlands	2,011	1,792	--	274	83	84	79	60	79	111
United Kingdom	1,289	1,300	--	130	103	89	102	95	86	135
Portugal	243	185	--	26	9	35	5	8	7	9
Spain, incl. Canary Islands	1,087	1,126	--	164	47	48	38	55	47	122
Other Western Europe	620	336	200	61	23	16	24	17	28	39
Switzerland	506	236	--	46	14	9	17	9	17	29
EASTERN EUROPE	317	320	300	28	22	31	26	16	11	16
Poland	164	139	--	11	9	18	12	5	3	6
Former Yugoslavia	72	97	--	9	4	6	6	6	3	6
Romania	37	31	--	3	4	4	2	3	1	1
NEWLY INDEPENDENT STATES	1,593	1,456	1,500	142	144	124	141	109	34	46
Russia	1,281	1,103	1,200	115	112	93	97	70	6	18
ASIA ²	26,436	21,954	18,000	2,310	1,588	1,567	1,493	1,523	1,301	1,954
West Asia (Mideast)	2,562	2,285	2,100	238	161	171	174	164	123	227
Turkey	742	658	600	39	63	60	48	72	34	54
Iraq	50	131	--	8	0	6	30	0	0	0
Israel, incl. Gaza and W. Bank	543	389	--	50	34	19	29	24	13	52
Saudi Arabia	630	535	500	70	33	35	33	32	34	58
South Asia	728	623	600	79	35	33	31	79	37	82
Bangladesh	123	114	--	8	6	6	9	6	11	30
India	152	163	--	14	11	20	7	31	13	20
Pakistan	418	275	--	49	5	6	8	30	6	26
China	1,774	1,514	1,400	224	45	63	57	68	51	239
Japan	10,713	9,459	8,800	843	753	711	681	626	589	697
Southeast Asia	3,136	2,282	2,100	241	147	163	183	181	128	193
Indonesia	768	529	500	57	14	45	50	50	31	50
Philippines	898	744	600	56	66	68	63	73	46	56
Other East Asia	7,523	5,790	5,100	685	446	427	366	405	372	515
Korea, Rep.	3,293	2,245	2,000	248	203	172	161	164	140	198
Hong Kong	1,640	1,568	1,500	161	125	128	105	100	128	129
Taiwan	2,588	1,971	1,600	274	118	127	99	141	104	188
AFRICA	2,265	2,167	2,100	204	104	145	174	185	193	179
North Africa	1,480	1,475	1,500	158	67	73	122	125	119	114
Morocco	166	139	--	19	4	7	20	13	2	7
Algeria	307	281	--	26	13	20	28	25	13	23
Egypt	928	939	900	99	43	44	73	84	99	83
Sub-Saharan	785	692	600	46	38	72	51	60	74	65
Nigeria	106	140	--	7	11	19	20	13	12	10
S. Africa	239	193	--	13	7	16	11	15	17	20
LATIN AMERICA and CARIBBEAN	9,984	11,348	10,800	1,068	842	878	970	822	822	1,074
Brazil	461	566	500	131	24	36	23	28	39	110
Caribbean Islands	1,473	1,487	--	161	104	99	131	114	105	148
Central America	1,029	1,137	--	77	97	98	94	81	87	98
Colombia	552	592	--	55	49	67	38	41	38	39
Mexico	5,077	5,956	5,600	504	477	486	546	460	456	539
Peru	178	314	--	26	15	16	33	29	35	39
Venezuela	552	516	500	51	35	29	55	32	24	45
CANADA	6,620	7,022	6,700	609	627	645	577	534	558	601
OCEANIA	534	545	500	52	46	46	38	49	49	56
TOTAL	57,365	53,730	50,500	5,534	3,928	3,971	3,884	3,704	3,467	4,859
Developed countries	28,243	26,530	--	2,727	2,014	1,964	1,794	1,707	1,718	2,349
Developing countries	25,717	24,211	--	2,437	1,722	1,820	1,891	1,818	1,662	2,224
Other countries	3,406	2,988	--	370	191	187	199	179	87	287

F = Forecast. -- = Not available. Based on fiscal year beginning October 1 and ending September 30. 1. Austria, Finland, and Sweden are included in the European Union. 2. Asia forecasts exclude West Asia (Mideast). NOTE: Adjusted for transshipments through Canada, but transshipments are not distributed as previously for 1998. Information contact: Mary Fant (202) 694-5272

Farm Income

Table 29—Value Added to the U.S. Economy by the Agricultural Sector

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	<i>\$ billion</i>									
Final crop output	83.3	81.0	89.0	82.4	100.3	95.8	115.6	112.5	104.6	102.2
Food grains	7.5	7.3	8.5	8.2	9.5	10.4	10.7	10.6	8.8	8.3
Feed crops	18.7	19.3	20.1	20.2	20.4	24.6	27.3	27.6	23.8	21.9
Cotton	5.5	5.2	5.2	5.2	6.7	6.9	7.0	6.5	5.6	6.1
Oil crops	12.3	12.7	13.3	13.2	14.7	15.5	16.4	19.9	17.6	16.3
Tobacco	2.7	2.9	3.0	2.9	2.7	2.5	2.8	2.9	2.9	2.6
Fruits and tree nuts	9.4	9.9	10.2	10.3	10.3	11.1	11.9	12.8	13.1	13.6
Vegetables	11.5	11.6	11.9	13.5	13.9	14.9	14.6	15.1	16.0	16.0
All other crops	12.8	13.1	13.7	14.0	14.9	15.2	15.9	16.7	16.8	17.2
Home consumption	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Value of inventory adjustment ¹	2.8	-1.2	3.2	-5.3	7.2	-5.4	8.9	0.3	-0.1	0.2
Final animal output	90.2	87.3	87.1	91.7	89.7	87.6	92.2	96.2	92.9	95.2
Meat animals	51.2	50.1	47.7	50.8	46.8	44.8	44.4	49.9	43.1	47.7
Dairy products	20.2	18.0	19.7	19.2	19.9	19.9	22.8	21.0	23.9	22.5
Poultry and eggs	15.3	15.2	15.5	17.3	18.4	19.1	22.3	22.2	22.8	22.4
Miscellaneous livestock	2.5	2.5	2.6	2.8	3.0	3.2	3.4	3.5	3.5	3.5
Home consumption	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4
Value of inventory adjustment ¹	0.4	1.0	1.0	1.1	1.1	0.2	-1.1	-0.7	-0.9	-1.2
Services and forestry	15.3	15.4	15.2	16.6	17.9	19.4	20.7	22.1	22.6	23.0
Machine hire and customwork	1.8	1.8	1.8	1.9	2.1	1.9	2.2	2.6	2.5	2.6
Forest products sold	1.8	1.8	2.2	2.6	2.7	2.9	2.8	2.8	2.9	3.1
Other farm income	4.5	4.7	4.2	4.6	4.4	5.2	5.9	6.3	6.3	5.9
Gross imputed rental value of farm dwellings	7.2	7.2	7.0	7.6	8.7	9.3	9.8	10.3	10.9	11.4
Final agricultural sector output²	188.7	183.7	191.3	190.7	207.9	202.8	228.5	230.8	220.1	220.4
<i>Minus</i> Intermediate consumption outlays:	92.9	94.6	93.5	100.6	104.9	109.0	112.9	118.6	113.6	114.2
Farm origin	39.5	38.6	38.6	41.2	41.3	41.6	42.7	45.7	43.2	43.6
Feed purchased	20.4	19.3	20.1	21.4	22.6	23.8	25.2	25.2	23.8	23.9
Livestock and poultry purchased	14.6	14.1	13.6	14.6	13.3	12.3	11.2	13.8	12.6	12.9
Seed purchased	4.5	5.1	4.9	5.2	5.4	5.5	6.2	6.7	6.8	6.9
Manufactured inputs	22.0	23.2	22.7	23.1	24.4	26.2	28.6	29.0	27.8	28.4
Fertilizers and lime	8.2	8.7	8.3	8.4	9.2	10.0	10.9	10.9	10.5	10.6
Pesticides	5.4	6.3	6.5	6.7	7.2	7.7	8.5	8.8	8.9	9.1
Petroleum fuel and oils	5.8	5.6	5.3	5.3	5.3	5.4	6.0	6.2	5.6	5.9
Electricity	2.6	2.6	2.6	2.7	2.7	3.0	3.2	3.0	2.7	2.8
Other intermediate expenses	31.4	32.8	32.2	36.2	39.2	41.2	41.5	43.9	42.7	42.2
Repair and maintenance of capital items	8.6	8.6	8.5	9.2	9.1	9.5	10.3	10.4	10.2	10.2
Machine hire and customwork	3.6	3.5	3.8	4.4	4.8	4.8	4.7	4.8	4.6	4.5
Marketing, storage, and transportation	4.2	4.7	4.5	5.6	6.8	7.2	6.9	7.1	6.9	7.0
Contract labor	1.6	1.6	1.7	1.8	1.8	2.0	2.1	2.6	2.7	2.7
Miscellaneous expenses	13.5	14.3	13.7	15.2	16.7	17.8	17.5	19.0	18.2	17.7
<i>Plus</i> Net government transactions:	3.1	2.1	2.7	6.9	1.0	0.1	0.1	0.1	5.5	2.6
+ Direct government payments	9.3	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.9	10.2
- Motor vehicle registration and licensing fees	0.4	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5
- Property taxes	5.9	5.8	6.1	6.2	6.5	6.7	6.8	7.0	7.0	7.1
Gross value added	98.9	91.2	100.5	97.0	104.0	93.9	115.7	112.3	112.0	108.8
<i>Minus</i> Capital consumption	18.1	18.2	18.3	18.4	18.7	19.1	19.4	19.5	19.6	19.9
Net value added²	80.7	73.0	82.1	78.6	85.3	74.8	96.3	92.8	92.3	88.9
<i>Minus</i> Factor payments:	36.0	34.4	34.6	35.1	37.0	38.8	42.9	42.9	44.4	44.4
Employee compensation (total hired labor)	12.5	12.3	12.3	13.2	13.5	14.3	15.4	16.0	16.9	17.3
Net rent received by nonoperator landlords	10.0	9.9	11.2	11.0	11.8	11.8	14.3	13.2	13.4	13.4
Real estate and non-real estate interest	13.4	12.1	11.1	10.8	11.7	12.7	13.2	13.7	14.1	13.7
Net farm income²	44.7	38.6	47.5	43.6	48.3	36.0	53.4	49.8	48.0	44.6

Values in last two columns are preliminary or forecast. 1. A positive value of inventory change represents current-year production not sold by December 1. A negative value is an offset to production from prior years included in current-year sales. 2. Final sector output is the gross value of commodities and services produced within a year. Net value added is the sector's contribution to the National economy and is the sum of income from production earned by all factors of production. Net farm income is the farm operators' share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development. *Information contact: Roger Strickland (202)694-5592 or rogers@econ.ag.gov*

Table 30—Farm Income Statistics

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	<i>\$ billion</i>									
Cash income statement:										
1. Cash receipts	169.5	167.9	171.4	177.8	181.2	188.1	199.6	208.7	198.0	198.0
Crops ¹	80.3	82.1	85.7	87.6	93.1	101.1	106.6	112.1	104.7	102.0
Livestock	89.2	85.8	85.6	90.2	88.2	87.0	93.0	96.6	93.4	96.0
2. Direct Government payments	9.3	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.9	10.2
3. Farm-related income ²	8.1	8.3	8.2	9.0	9.2	10.1	10.9	11.8	11.8	11.6
4. Gross cash income (1+2+3)	186.9	184.3	188.7	200.2	198.3	205.5	217.8	228.0	222.7	219.8
5. Cash expenses ³	134.1	134.0	133.6	141.2	147.6	153.6	161.4	167.2	163.6	164.3
6. Net cash income (4-5)	52.8	50.4	55.1	59.0	50.7	51.8	56.4	60.8	59.1	55.5
Farm income statement:										
7. Gross cash income (4)	186.9	184.3	188.7	200.2	198.3	205.5	217.8	228.0	222.7	219.8
8. Noncash income ⁴	7.9	7.8	7.6	8.1	9.2	9.8	10.2	10.7	11.3	11.9
9. Value of inventory adjustment	3.3	-0.2	4.2	-4.2	8.3	-5.1	7.8	-0.4	-1.0	-1.0
10. Gross farm income (7+8+9)	198.0	191.9	200.5	204.1	215.8	210.1	235.8	238.3	233.1	230.6
11. Total production expenses	153.3	153.3	152.9	160.5	167.5	174.1	182.4	188.4	185.1	186.1
12. Net farm income (10-11)	44.7	38.6	47.5	43.6	48.3	36.0	53.4	49.8	48.0	44.6

Values for last 2 years are preliminary or forecasts. Numbers in parentheses indicate the combination of items required to calculate an item. Totals may not add due to rounding. 1. Includes commodities placed under CCC loans and profits made on loans redeemed. 2. Income from custom labor, machine hire, recreational activities, forest product sales, and other farm sources. 3. Excludes depreciation and perquisites to hired labor. Excludes farm operator dwellings. 4. Value of farm products consumed on farms where produced plus the imputed rental value of farm dwellings. *Information contact:* Roger Strickland (202) 694-5582 or rogers@econ.ag.gov

Table 31—Average Income to Farm Operator Households¹

	1991	1992	1993	1994	1995	1996	1997P	1998F
	<i>\$ per farm</i>							
Net cash farm business income ²	10,678	11,320	11,248	11,389	11,218	13,502	12,460	--
Less depreciation ³	5,127	5,187	6,219	6,466	6,795	6,906	6,578	--
Less wages paid to operator ⁴	441	216	454	425	522	531	513	--
Less farmland rental income ⁵	323	360	534	701	769	672	568	--
Less adjusted farm business income due to other household(s) ⁶	1,093	961	872	815	649	1,094	*1,429	--
	<i>\$ per farm operator household</i>							
Equals adjusted farm business income	3,694	4,596	3,168	2,981	2,484	4,300	3,373	--
Plus wages paid to operator	441	216	454	425	522	531	513	--
Plus net income from farmland rental ⁷	323	360	--	--	1,053	1,178	945	--
Equals farm self-employment income	4,458	5,172	3,623	3,407	4,059	6,009	4,831	--
Plus other farm-related earnings ⁸	1,352	2,008	1,192	970	661	1,898	1,158	--
Equals earnings of the operator household from farming activities	5,810	7,180	4,815	4,376	4,720	7,906	5,989	5,757
Plus earnings of the operator household from off-farm sources ⁹	31,638	35,731	35,408	38,092	39,671	42,455	46,358	45,060
Equals average farm operator household income	37,447	42,911	40,223	42,469	44,392	50,361	52,347	50,816
	<i>\$ per U.S. household</i>							
U.S. average household income ¹⁰	37,922	38,840	41,428	43,133	44,938	47,123	49,692	--
	<i>Percent</i>							
Average farm operator household income as percent of U.S. average household income	98.7	110.5	97.1	98.5	98.8	106.9	105.3	--
Average operator household earnings from farming activities as percent of average operator household income	15.5	16.7	12.0	10.3	10.6	15.7	11.4	--

-- = Not available. Values in the last 3 years preliminary or forecast. 1. This table derives farm operator household income estimates from the Agricultural Resource Management Study (ARMS) that are consistent with Current Population Survey (CPS) methodology. The CPS, conducted by the Bureau of the Census, is the source of official U.S. household income statistics. The CPS defines income to include any income received as cash. The CPS definition departs from a strictly cash concept by including depreciation as an expense that farm operators and other self-employed people subtract from gross receipts when reporting net cash income. 2. A component of farm-sector income. Excludes income of contractors and landlords as well as the income of farms organized as nonfamily corporations or cooperatives, and farms run by a hired manager. Includes income of farms organized as proprietorships, partnerships, and family corporations. 3. Consistent with the CPS definition of self-employed income, reported depreciation expenses are subtracted from net cash farm income. The ARMS collects data on farm business depreciation used for tax purposes. 4. Wages paid to the operator are excluded because they are not shared among other households that have claims on farm business income. These wages are added to the operator household's adjusted farm business income to obtain farm self-employment income. 5. Gross rental income excluded because net rental income from farm operation is added below to income received by the household. 6. More than one household may have a claim on income of a farm business. On average, 1.1 households share the income of a farm business. 7. Includes net rental income from the farm business. Also includes net rental income from farmland held by household members that is not part of the farm business. In 1991 and 1992, gross rental income from the farm business was used because net rental income data were not collected. In 1993 and 1994, net rental income data were collected as part of off-farm income. 8. Wages paid to other operator household members by the farm business, and net income from a farm business other than the one surveyed. In 1996, also includes value of commodities provided to household members for farm work. 9. Wages, salaries, net income from nonfarm businesses, interest, dividends, transfer payments, etc. In 1993 and 1994, also includes net rental income from farmland. 10. From the CPS. Sources: USDA, Economic Research Service, 1991, 1992, 1993, 1994, and 1995 Farm Costs and Returns Survey (FCRS), and 1996 Agricultural Resource Management Study for farm operator household data. U.S. Department of Commerce, Bureau of the Census Current Population Survey (PCS), for average household income. *Information contact:* Bob Hoppe (202) 694-5572 or rhoppe@econ.ag.gov

Table 32—Balance Sheet of the U.S. Farming Sector

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	<i>\$ billion</i>									
Farm assets	841.5	844.9	870.3	906.4	938.3	981.9	1,033.9	1,088.8	1,124.7	1,140.3
Real estate	620.0	625.5	642.8	673.7	706.9	755.7	799.5	849.2	891.7	904.1
Livestock and poultry ¹	70.9	68.1	71.0	72.8	67.9	57.8	60.3	66.8	57.0	59.0
Machinery and motor vehicles	86.3	85.9	85.4	86.5	87.5	88.5	88.9	88.1	91.0	90.0
Crops stored ^{2,3}	23.2	22.2	24.2	23.3	23.3	27.4	31.7	29.9	30.0	31.0
Purchased inputs	2.8	2.6	3.9	3.8	5.0	3.4	4.4	5.1	5.0	5.2
Financial assets	38.3	40.5	43.1	46.3	47.6	49.1	49.1	49.7	50.0	51.0
Total farm debt	138.0	139.2	139.1	142.0	146.8	150.8	156.1	165.4	170.4	169.1
Real estate debt ³	74.7	74.9	75.4	76.0	77.7	79.3	81.7	85.4	87.6	86.7
Non-real estate debt ⁴	63.2	64.3	63.6	65.9	69.1	71.5	74.4	80.1	82.8	82.4
Total farm equity	703.5	705.7	731.3	764.4	791.5	831.1	877.8	923.4	954.3	971.2
	<i>Percent</i>									
Selected ratios										
Debt to equity	19.6	19.7	19.0	18.6	18.5	18.1	17.8	17.9	17.9	17.4
Debt to assets	16.4	16.5	16.0	15.7	15.6	15.4	15.1	15.2	15.2	14.8

Values in the last two columns are forecasts. 1. As of December 31. 2. Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3. Includes CCC storage and drying facilities loans, but excludes debt on operator dwellings. 4. Excludes debt for nonfarm purposes. *Information contact: Ken Erickson (202) 694-5565 or erickson@econ.ag.gov*

Table 33—Cash Receipts from Farming

	Annual			1997		1998				
	1995	1996	1997	Sep	Apr	May	June	July	Aug	Sep
	<i>\$ million</i>									
Commodity sales ¹	188,108	199,580	208,665	18,291	14,282	13,230	14,138	14,649	14,873	16,739
Livestock and products	87,018	93,005	96,568	8,439	7,392	7,095	7,746	7,226	7,818	7,806
Meat animals	44,828	44,414	49,925	4,622	3,481	3,291	3,820	2,903	3,517	3,557
Dairy products	19,894	22,820	20,989	1,628	1,913	1,903	1,883	1,860	1,991	2,039
Poultry and eggs	19,070	22,345	22,183	1,887	1,781	1,674	1,772	1,903	2,034	1,908
Other	3,227	3,425	3,471	301	217	228	271	560	275	301
Crops	101,090	106,575	112,097	9,852	6,890	6,135	6,392	7,422	7,055	8,934
Food grains	10,417	10,741	10,603	1,014	376	362	1,017	1,517	876	783
Feed crops	24,581	27,265	27,638	2,071	1,257	1,115	1,355	1,478	1,397	1,525
Cotton (lint and seed)	6,851	6,983	6,515	221	305	280	184	94	203	280
Tobacco	2,548	2,796	2,886	578	61	0	0	66	430	589
Oil-bearing crops	15,496	16,362	19,911	1,411	880	694	621	777	596	1,194
Vegetables and melons	14,913	14,561	15,086	1,547	1,416	1,552	1,409	1,473	1,583	1,577
Fruits and tree nuts	11,119	11,933	12,790	1,478	767	747	912	1,068	1,026	1,451
Other	15,165	15,935	16,668	1,532	1,828	1,386	893	948	945	1,533
Government payments	7,279	7,340	7,496	2,972	75	80	89	167	1,806	1,919
Total	195,388	206,919	216,160	21,263	14,357	13,311	14,227	14,816	16,679	18,658

Annual values for the most recent year and monthly values for the current year are preliminary. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. *Information contact: Roger Strickland (202) 694-5592. To receive current monthly cash receipts, contact Larry Traub at (202)694-5593 or ltraub@econ.ag.gov.*

Table 34—Cash Receipts from Farm Marketings, by State

Region and State	Livestock and products				Crops ¹				Total ¹			
			Aug	Sep			Aug	Sep			Aug	Sep
	1996	1997	1998	1998	1996	1997	1998	1998	1996	1997	1998	1998
\$ million												
NORTH ATLANTIC												
Maine	262	258	20	19	220	228	32	25	482	486	52	45
New Hampshire	72	69	5	5	97	97	12	12	169	166	17	17
Vermont	433	416	39	41	99	97	5	9	532	513	44	51
Massachusetts	110	102	8	8	392	430	35	83	502	532	44	92
Rhode Island	11	9	1	1	73	74	4	16	84	83	5	17
Connecticut	236	218	18	17	253	279	9	70	489	496	27	87
New York	2,050	1,859	176	182	981	1,037	102	136	3,031	2,896	279	317
New Jersey	196	180	15	15	607	596	72	70	803	776	87	85
Pennsylvania	2,865	2,789	237	247	1,283	1,339	95	118	4,148	4,128	332	365
NORTH CENTRAL												
Ohio	1,943	1,869	145	145	2,853	3,476	145	246	4,796	5,345	290	391
Indiana	1,913	1,896	133	129	3,620	3,610	132	228	5,533	5,506	264	357
Illinois	2,063	1,937	124	114	6,453	7,339	285	266	8,516	9,276	408	380
Michigan	1,450	1,352	96	99	2,154	2,236	149	169	3,604	3,588	245	268
Wisconsin	4,299	4,070	380	369	1,732	1,686	122	140	6,030	5,756	502	509
Minnesota	4,147	4,054	293	280	4,654	4,101	224	261	8,800	8,155	517	542
Iowa	5,451	5,530	409	417	6,698	7,311	284	262	12,148	12,841	694	680
Missouri	2,463	2,795	165	179	2,409	2,768	112	170	4,872	5,564	278	349
North Dakota	539	611	40	43	2,891	2,702	159	259	3,429	3,313	199	302
South Dakota	1,634	1,820	95	125	1,875	2,417	132	114	3,509	4,237	228	238
Nebraska	5,277	5,542	484	433	3,933	4,550	150	180	9,211	10,092	633	614
Kansas	4,541	5,017	406	393	2,978	3,985	191	198	7,519	9,001	597	591
SOUTHERN												
Delaware	573	573	57	52	180	174	24	16	753	748	81	67
Maryland	901	915	92	89	639	623	45	67	1,540	1,538	137	156
Virginia	1,477	1,538	129	122	907	863	76	107	2,384	2,401	205	230
West Virginia	309	324	29	29	79	71	8	11	388	394	38	40
North Carolina	4,431	4,694	337	341	3,466	3,608	410	574	7,897	8,302	747	915
South Carolina	748	797	66	64	869	898	100	120	1,616	1,695	166	184
Georgia	3,279	3,442	338	302	2,452	2,445	134	360	5,731	5,887	472	662
Florida	1,206	1,265	104	92	5,038	4,978	193	202	6,244	6,243	296	294
Kentucky	1,727	1,978	95	169	1,842	1,655	30	71	3,569	3,633	125	240
Tennessee	999	1,005	72	70	1,406	1,287	51	80	2,405	2,292	123	150
Alabama	2,362	2,431	229	231	808	796	24	108	3,170	3,227	253	339
Mississippi	1,934	2,006	192	172	1,504	1,470	36	109	3,438	3,476	229	280
Arkansas	3,374	3,416	296	288	2,470	2,446	77	144	5,844	5,862	374	431
Louisiana	688	659	52	50	1,641	1,481	54	132	2,328	2,140	106	181
Oklahoma	2,414	3,061	190	198	1,105	1,308	107	80	3,519	4,369	297	277
Texas	7,821	8,184	721	716	5,139	5,277	488	422	12,960	13,461	1,210	1,138
WESTERN												
Montana	797	991	80	65	1,203	1,072	71	88	1,999	2,063	151	153
Idaho	1,330	1,389	124	125	2,043	1,926	119	248	3,372	3,315	243	373
Wyoming	478	646	33	41	189	199	22	19	667	845	54	60
Colorado	2,763	3,012	235	274	1,362	1,388	123	122	4,125	4,399	357	396
New Mexico	1,198	1,354	96	98	506	562	55	40	1,704	1,915	151	138
Arizona	840	888	48	61	1,306	1,257	52	66	2,145	2,145	100	126
Utah	644	715	59	64	228	238	19	24	872	953	78	89
Nevada	154	180	17	14	132	130	16	13	287	310	32	27
Washington	1,665	1,604	152	150	3,833	3,778	367	473	5,497	5,382	520	624
Oregon	658	740	58	58	2,246	2,373	256	333	2,904	3,113	314	390
California	6,212	6,294	622	603	17,285	18,995	1,607	1,834	23,497	25,289	2,229	2,437
Alaska	6	6	1	1	23	26	3	3	29	32	3	3
Hawaii	66	68	6	6	420	415	37	35	487	483	42	41
U.S.	93,005	96,568	7,818	7,806	106,575	112,097	7,055	8,934	199,580	208,665	14,873	16,739

Estimates as of end of current month. Totals may not add because of rounding. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. *Information contact: Roger Strickland (202) 694-5592. To receive current monthly cash receipts contact Larry Traub at (202) 694-5593 or ltraub@econ.ag.gov*

Table 35—CCC Net Outlays by Commodity & Function

	Fiscal year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998 E	1999 E
	\$ million									
COMMODITY/PROGRAM										
Feed grains:										
Corn	2,435	2,387	2,105	5,143	625	2,090	2,021	2,587	2,649	2,604
Grain sorghum	349	243	190	410	130	153	261	284	285	280
Barley	-94	71	174	186	202	129	114	109	152	114
Oats	-5	12	32	16	5	19	8	8	9	8
Corn and oat products	8	9	9	10	10	1	0	0	0	0
Total feed grains	2,693	2,722	2,510	5,765	972	2,392	2,404	2,988	3,095	3,006
Wheat and products	796	2,805	1,719	2,185	1,729	803	1,491	1,332	1,587	1,486
Rice	667	867	715	887	836	814	499	459	515	471
Upland cotton	-79	382	1,443	2,239	1,539	99	685	561	1,065	957
Tobacco	-307	-143	29	235	693	-298	-496	-156	286	-49
Dairy	505	839	232	253	158	4	-98	67	224	113
Soybeans	5	40	-29	109	-183	77	-65	5	11	222
Peanuts	1	48	41	-13	37	120	100	6	0	-1
Sugar	15	-20	-19	-35	-24	-3	-63	-34	-39	-39
Honey	47	19	17	22	0	-9	-14	-2	0	0
Wool	104	172	191	179	211	108	55	0	0	0
Operating expense ¹	618	625	6	6	6	6	6	6	5	6
Interest expenditure	632	745	532	129	-17	-1	140	-111	-109	-42
Export programs ²	-34	733	1,459	2,193	1,950	1,361	-422	125	329	530
1988/96 Disaster/tree/ livestock assistance	161 ³	121	1,054	944	2,566	660	95	130	25	5
Conservation reserve program	0	0	0	0	0	0	2	1,671	1,829	1,639
Other conservation programs	0	0	0	0	0	0	7	105	291	340
Other	647	155	-162	949	-137	-103	320	104	209	426
Total	6,471	10,110	9,738	16,047	10,336	6,030	4,646	7,256	9,323	9,070
Function										
Price support loans (net)	-399	418	584	2,065	527	-119	-951	110	444	115
Cash direct payments: ⁴										
Production flexibility contract	0	0	0	0	0	0	5,141	6,320	5,716	5,512
Deficiency	4,178	6,224	5,491	8,607	4,391	4,008	567	-1,118	-11	0
Diversion	0	0	0	0	0	0	0	0	0	0
Dairy termination	189	96	2	0	0	0	0	0	0	0
Loan Deficiency	3	21	214	387	495	29	0	0	6	103
Other	0	0	140	149	171	97	95	7	360	335
Disaster	0	0	0	0	0	0	0	0	0	0
Conservation reserve program	0	0	0	0	0	0	2	1,671	1,829	1,639
Other conservation programs	0	0	0	0	0	0	0	85	238	298
Non-Insured Assistance (NAP)	0	0	0	0	0	0	2	52	54	77
Total direct payments	4,370	6,341	5,847	9,143	5,057	4,134	5,807	7,017	8,192	7,964
1988-94 crop disaster	5 ³	6	960	872	2,461	584	14	2	0	0
Emergency livestock/tree/DRAP livestock indemn/forage assist.	156	115	94	72	105	76	81	128	25	5
Purchases (net)	-48	646	321	525	293	-51	-249	-60	145	72
Producer storage payments	185	1	14	9	12	23	0	0	0	0
Processing, storage, and transportation	278	240	185	136	112	72	51	33	32	30
Operating expense ¹	618	625	6	6	6	6	6	6	5	6
Interest expenditure	632	745	532	129	-17	-1	140	-111	-109	-42
Export programs ²	-34	733	1,459	2,193	1,950	1,361	-422	125	329	530
Other	708	240	-264	897	-170	-55	169	6	260	390
Total	6,471	10,110	9,738	16,047	10,336	6,030	4,646	7,256	9,323	9,070

1. Does not include CCC Transfers to General Sales Manager. 2. Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Access (Promotion) Program, starting in FY 1991 and starting in FY 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, Dairy Export Incentive Program, and Technical Assistance to Emerging Markets. 3. Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates and were not recorded directly as disaster assistance outlays. 4. Includes cash payments only. Excludes generic certificates in FY 86-96. E=Estimated in the FY 1999 Mid-Session Review Budget which was released on May 26, 1998 based on April 1998 supply and demand estimates. The CCC outlays shown for 1996-1999 include the impact of the Federal Agricultural Improvement and Reform Act of 1996, which was enacted April 4, 1996. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds). Information contact: Richard Pazdalski Farm Service Agency - Budget at (202) 720-3675 or Richard_Pazdalski@wdc.fsa.usda.gov.

Food Expenditures

Table 36—Food Expenditures

	Annual			1998			Year-to-date cumulative		
	1995	1996	1997 P	Sept	Oct P	Nov P	Sept	Oct P	Nov P
	<i>\$ billion</i>								
Sales ¹									
At home ²	354.2	367.6	380.2	32.3	30.1	29.3	291.2	321.3	350.6
Away from home ³	280.8	288.5	297.9	24.7	26.5	24.1	225.3	251.7	275.8
	<i>1995 \$ billion</i>								
Sales ¹									
At home ²	367.3	367.4	371.0	30.9	28.6	27.8	276.9	308.2	336.0
Away from home ³	287.7	288.5	289.7	23.3	24.9	22.6	214.2	239.1	261.8
	<i>Percent change from year earlier (\$ billion)</i>								
Sales ¹									
At home ²	3.8	3.8	3.4	6.4	-6.8	-9.4	4.0	2.9	1.7
Away from home ³	4.5	2.7	3.0	1.3	4.8	1.4	0.6	1.0	1.0
	<i>Percent change from year earlier (1995 \$ billion)</i>								
Sales ¹									
At home ²	0.5	0.1	1.0	4.7	-8.8	-11.3	2.2	1.0	-0.1
Away from home ³	2.2	0.3	0.2	-1.4	2.2	-1.1	-2.0	-1.6	-1.5

R = Revised. P = Preliminary. 1. Food only (excludes alcoholic beverages). Not seasonally adjusted. 2. Excludes donations and home production. 3. Excludes donations, child nutrition subsidies, and meals furnished to employees, patients, and inmates. *Information contact: Annette Clauson (202) 694-5373*

Note: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, excluding alcoholic beverages and pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced and consumed on farms and food furnished to employees; (4) this series includes all sales of meals and snacks, while PCE includes only purchases using personal funds, excluding business travel and entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," ERS Agr. Econ. Rpt. No. 575, Aug. 1987.

Transportation

Table 37—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			1997		1998				
	1995	1996	1997	Oct	May R	Jun	Jul	Aug R	Sep	Oct
Rail freight rate index ¹ (Dec. 1984=100)										
All products	111.7	111.5	112.1	112.5	113.5	113.4	113.6	113.6	113.7	113.4
Farm products	115.6	115.9	120.3	121.1	124.7	124.7	124.7	124.7	124.7	120.9
Grain ²	117.1	118.0	--	--	--	--	--	--	--	--
Food products	111.7	108.8	107.6	108.4	108.3	106.5	108.1	106.5	106.5	107.2
Barge freight rate index ¹ (Dec 1990=100)										
Grain	172.6	129.5	107.1	162.5	86.9	94.5	--	--	--	--
Grain shipments										
Rail carloadings (1,000 cars) ³	28.9	25.2	23.2	25.6	20.4	20.7	21.4	22.3	21.7	26.5
Barge shipments (mil. ton) ^{4,5}	3.5	3.1	2.4	0.0	--	--	--	--	--	--
Fresh fruit and vegetable shipments ⁶										
Piggy back (mil. cwt)	1.3	1.1	1.1	0.7	1.3	1.1	0.8	0.7	0.9	0.7
Rail (mil. cwt)	1.9	1.6	1.7	1.3	1.1	1.5	1.5	0.4	0.8	1.3
Truck (mil. cwt)	40.5	35.7	42.6	39.5	50.3	51.7	42.2	39.6	36.2	40.4
Cost of operating trucks hauling produce ⁶										
Fleet operation (¢/mile)	130.3	123.0	135.4	135.7	--	--	--	--	--	--

R = Revised. -- = Not available. 1. Department of Labor, Bureau of Labor Statistics. 2. Discontinued. 3. Weekly average; from Association of American Railroads. 4. Shipments on Illinois and Mississippi waterways, U.S. Corps of Engineers. 5. Annual 1996 is 7-month average. 6. Agricultural Marketing Service, USDA. *Information contact: Jenny Gonzales (202) 694-5296*

Indicators of Farm Productivity

Table 38—Indexes of Farm Production, Input Use, & Productivity¹

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
	<i>1992=100</i>									
Farm output	88	83	89	94	94	100	94	107	101	106
All livestock products	92	93	94	95	98	100	100	108	110	109
Meat animals	95	97	97	96	99	100	100	102	103	100
Dairy products	94	96	95	98	98	100	99	114	115	115
Poultry and eggs	81	83	86	92	96	100	104	110	114	119
All crops	86	75	86	92	92	100	90	106	96	103
Feed crops	84	62	85	88	86	100	76	102	83	98
Food crops	84	76	83	107	82	100	96	97	90	93
Oil crops	88	72	88	87	94	100	85	115	99	107
Sugar	95	91	91	92	96	100	95	106	98	94
Cotton and cottonseed	92	96	75	96	109	100	100	122	110	117
Vegetables and melons	90	81	85	93	97	100	97	113	108	112
Fruit and nuts	95	102	98	97	96	100	107	111	102	102
Farm input ¹	101	100	100	101	102	100	101	102	101	100
Farm labor	101	103	104	102	106	100	96	96	92	100
Farm real estate	100	100	102	101	100	100	98	99	98	99
Durable equipment	120	113	108	105	103	100	97	94	92	89
Energy	102	102	101	100	101	100	100	103	109	104
Fertilizer	106	97	94	97	98	100	111	109	85	89
Pesticides	92	79	93	90	100	100	97	103	94	106
Feed, seed, and purchased livestock	97	96	91	99	99	100	101	102	109	95
Inventories	102	98	93	97	100	100	104	99	108	104
Farm output per unit of input	87	83	90	93	92	100	94	105	100	106
Output per unit of labor										
Farm ²	87	81	86	92	89	100	98	111	110	106
Nonfarm ³	95	95	96	96	97	100	100	101	--	--

Values for latest year preliminary. 1. Includes miscellaneous items not shown separately. 2. Source: Economic Research Service. 3. Source: Bureau of Labor Statistics. *Information contact: John Jones (202) 694-5614*

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Food Supply & Use

Table 39—Per Capita Consumption of Major Food Commodities¹

Commodity	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	<i>Lbs.</i>									
Red meats ^{2,3,4}	119.5	115.9	112.3	111.9	114.1	112.2	114.8	115.1	112.8	111.0
Beef	68.6	65.4	63.9	63.1	62.8	61.5	63.6	64.4	65.0	63.8
Veal	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8	1.0	0.9
Lamb & mutton	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8
Pork	48.8	48.4	46.4	46.9	49.5	48.9	49.6	49.0	45.9	45.6
Poultry ^{2,3,4}	51.9	53.9	56.3	58.3	60.8	62.5	63.3	62.9	64.4	64.8
Chicken	39.6	40.9	42.4	44.2	46.7	48.5	49.3	48.8	49.8	50.9
Turkey	12.4	13.1	13.8	14.1	14.1	14.0	14.1	14.1	14.6	13.9
Fish and shellfish ³	15.1	15.6	15.0	14.8	14.7	14.9	15.1	14.9	14.7	14.5
Eggs ⁴	31.8	30.5	30.2	30.1	30.3	30.4	30.6	30.2	30.5	30.7
Dairy products										
Cheese (excluding cottage) ^{2,5}	23.7	23.8	24.6	25.0	26.0	26.2	26.8	27.3	27.7	28.0
American	11.5	11.0	11.1	11.1	11.3	11.4	11.5	11.8	12.0	12.0
Italian	8.1	8.5	9.0	9.4	10.0	9.8	10.3	10.4	10.8	11.0
Other cheeses ⁶	4.1	4.3	4.5	4.6	4.7	5.0	5.0	5.0	5.0	5.1
Cottage cheese	3.9	3.6	3.4	3.3	3.1	2.9	2.8	2.7	2.6	2.7
Beverage milks ²	222.3	224.2	221.8	221.2	218.3	213.4	213.5	209.7	210.0	206.9
Fluid whole milk ⁷	105.7	97.5	90.4	87.3	84.0	80.1	78.8	75.3	74.6	72.7
Fluid lowfat milk ⁸	100.5	106.5	108.4	109.9	109.3	106.5	105.9	102.5	101.7	99.8
Fluid skim milk	16.1	20.2	22.9	23.9	25.0	26.7	28.7	31.9	33.7	34.4
Fluid cream products ⁹	7.6	7.8	7.6	7.7	8.0	8.0	8.1	8.4	8.7	9.1
Yogurt (excluding frozen)	4.5	4.2	4.0	4.2	4.2	4.3	4.7	5.1	4.8	5.1
Ice cream	17.3	16.1	15.8	16.3	16.3	16.1	16.1	15.7	15.9	16.2
Ice milk	8.0	8.4	7.7	7.4	7.1	6.9	7.6	7.5	7.6	7.9
Frozen yogurt	--	2.0	2.8	3.5	3.1	3.5	3.5	3.5	2.6	2.1
All dairy products, milk equivalent, milkfat basis ¹⁰	582.5	563.8	568.4	565.6	565.9	574.1	586.0	584.4	575.5	579.8
Fats and oils--total fat content	63.6	60.8	62.8	65.4	67.4	70.2	68.6	66.9	65.4	67.4
Butter and margarine (product weight)	14.8	14.6	15.3	15.0	15.4	15.8	14.7	13.7	13.5	12.8
Shortening	21.5	21.5	22.2	22.4	22.4	25.1	24.1	22.5	22.3	20.9
Lard and edible tallow (direct use)	2.6	2.1	2.4	3.1	4.1	3.9	4.7	4.9	5.3	4.7
Salad and cooking oils	26.3	24.4	24.8	26.7	27.2	26.8	26.3	26.9	26.1	28.7
Fresh fruits ¹¹	120.9	122.8	116.3	113.0	123.5	124.9	126.5	124.6	129.0	133.2
Canned fruit ¹²	18.5	19.0	18.4	17.1	19.8	18.0	18.3	14.9	16.4	18.0
Dried fruit	3.3	3.3	3.1	3.0	2.8	3.0	3.0	2.8	2.8	2.7
Frozen fruit	3.4	3.7	3.5	3.5	3.8	3.4	2.9	4.2	3.9	3.2
Selected fruit juices ¹³	68.3	70.5	66.2	66.6	63.6	74.9	71.6	75.6	75.3	75.2
Vegetables ¹¹										
Fresh	167.4	172.2	167.2	167.2	171.1	171.9	177.4	175.1	181.8	185.6
Canning	94.8	102.4	110.7	113.3	111.6	112.1	107.8	110.2	108.5	105.9
Freezing	64.2	67.6	66.8	72.7	70.8	75.1	79.5	79.9	83.9	81.5
Dehydrated and chips	27.5	28.2	29.0	31.2	30.1	31.0	30.7	30.0	33.1	33.6
Pulses	7.5	6.3	7.1	7.8	8.2	7.7	8.5	8.5	8.0	8.5
Peanuts (shelled)	6.9	7.0	6.0	6.5	6.2	6.0	5.8	5.7	5.7	5.8
Tree nuts (shelled)	2.3	2.2	2.4	2.2	2.2	2.2	2.3	1.9	2.0	2.2
Flour and cereal products ¹⁴	175.5	174.5	182.0	183.6	186.2	191.0	194.1	192.5	198.4	200.1
Wheat flour	131.7	129.6	136.0	136.9	138.8	143.3	144.5	141.8	148.8	149.7
Rice (milled basis)	14.3	15.2	16.2	16.8	17.5	17.6	19.3	20.1	18.9	19.5
Caloric sweeteners ¹⁵	132.7	133.1	137.0	138.0	141.2	144.4	147.4	149.9	150.3	--
Coffee (green bean equiv.)	9.8	10.1	10.3	10.3	10.0	9.1	8.2	8.0	8.9	9.3
Cocoa (chocolate liquor equiv.)	3.8	4.0	4.3	4.6	4.6	4.3	3.9	3.6	4.2	4.1

-- = Not available. 1. In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, and ending stocks. Calendar-year data, except fresh citrus fruits, peanuts, tree nuts, and rice, which are on crop-year basis. 2. Totals may not add due to rounding. 3. Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4. Excludes shipments to the U.S. territories. 5. Whole and part-skim milk cheese. Natural equivalent of cheese and cheese products. 6. Includes Swiss, Brick, Muenster, cream, Neufchatel, Blue, Gorgonzola, Edam, and Gouda. 7. Plain and flavored. 8. Plain and flavored, and buttermilk. 9. Heavy cream, light cream, half and half, eggnog, sour cream, and dip. 10. Includes condensed and evaporated milk and dry milk products. 11. Farm weight. 12. Excludes pineapples and berries. 13. Single strength equivalent. 14. Includes rye, corn, oat, and barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, and fuel. 15. Dry weight equivalent.

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 "Canada's Budget Dictates Changes in Agricultural Policy," 11/24
 Central and Eastern Europe: "Eastern Europe: Economies in Transition, Recovery in Progress," 1-2/22
 China: "China: A Major Force in World Ag Markets," 6/26
 Conservation: "Meeting Conservation Goals: What Can Be Learned?" 4/22
 Corn: "Strong Demand Drives U.S. Corn Market," 10/24
 Crop insurance: "Federal Crop Insurance Reform: How Does It Work?" 3/24
 Greenhouse-nursery industry: "U.S. Greenhouse and Nursery Industry Flourishes," 9/26
 Russia:
 "Market Reforms Transform Russia's Ag Import Picture," 8/24
 "Russia As WTO Candidate—The Issues for Agriculture," 12/26
 South Africa: "South Africa: Ag Reforms in the Face of Drought," 7/26

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● Articles by department

Agricultural Economy: 3/2 (farm organization), 4/2, 6/2 (ag and rural employment), 9/2 (grain markets)
 Farm and Rural Communities: 3/22, 6/26, 11/18
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Biodiversity: "Agriculture's Links to Biodiversity," 12/32
 Conservation: "Conservation and the 1996 Farm Act," 11/22
 Farm Act: "Provisions of the 1996 Farm Bill," April Supplement
 Industrial uses: "Industry Expands Use of Agricultural Commodities," 1-2/22
 Japan: "Japan: New Growth in the #1 U.S. Ag Market," 3/26
 Livestock: "Livestock Manure: Foe or Fertilizer?" 6/30
 Research: "Ag Research: Public and Private Sector Roles," 7/30
 Risk management:
 "Strategies for a New Risk Management Environment," 10/24
 "HTA Contracts: Risks and Lessons," 10/31
 Tillage: "Conservation Tillage Gaining Ground," 8/26
 Trade blocs: "Asia-Pacific Economic Cooperation (APEC) Region: Absorbing U.S. Ag Exports," 9/24

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 Farm and Rural Communities: 5/23, 11/22
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China: "China: Is Current Ag Policy a Retreat from Reform?" 3/26
 European Union: "Ag Trade Environment with an Enlarged European Union," 6/24
 Farm legislation: "Farm Act '96: Managing Farm Resources in a New Policy Environment," 8/18
 Food industry: "Globalization of the Processed Foods Market," 1-2/34
 Food security: "Market Stability and World Food Security," 4/32

NAFTA: "NAFTA's Impact on U.S. Agriculture: The First 3 Years," 9/20
 Pork: "The U.S. Pork Industry: As It Changes, Consumers Stand to Gain," 12/20
 State Trading Enterprises: "State Trading Enterprises: Their Role as Importers," 11/31
 Trade, global: "WTO Accession for China and Taiwan: Potential Trade Impacts," 7/18
 Water quality: "USDA's Water Quality Program: The Lessons Learned," 5/28
 World Trade Organization:
 "U.S. Ag Policy—Well Below WTO Ceilings on Domestic Support," 10/26
 "NIS and Baltic Countries Look to Join the WTO," 11/26

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Biotechnology: "U.S. Farmers Are Rapidly Adopting Biotech Crops," 8/21
 China: "'China's Livestock Sector Growing Rapidly," 11/15
 Latin America:
 "Argentina's Economic Reforms Expand Growth Potential for Agriculture," 3/24
 "The Future of Brazil's Agricultural Sector," 5/34
 Central and Eastern Europe: "Livestock Sectors Restructuring in CEE/NIS Countries," 6-7/24
 Conservation: "Farmers' Use of 'Green' Practices Varies Widely," 2/22
 Cuba: "Cuba's Agriculture—Collapse and Economic Reform," 10/26
 Trade:
 "Trade Prospects Support Bright Outlook in USDA's Long-Term Baseline," 4/28
 "Regional Trade Agreements and U.S. Agriculture," 9/25
 World Trade Organization: "Uruguay Round Agreement on Agriculture—The Record to Date," 12/28

Monday, February 22

MORNING GENERAL SESSIONS

Opening Address

Dan Glickman, Secretary of Agriculture

Keynote Speaker (to be announced)

10:00-10:45 a.m.

Agricultural and Trade Prospects

Keith Collins, Chief Economist, USDA

*August Schumacher, Under Secretary
for Farm and Foreign Agricultural Services, USDA*

11:00 am-12:30 p.m.

Marketing Strategies in the New Millennium

Moderator: Ken Root, Host AgriTalk Radio

AFTERNOON BREAKOUT SESSIONS

2:00-3:30 p.m.—concurrent

Farm Income and Finance Outlook

Business practices to improve bottom lines; farm credit conditions; the dynamics of income, debt management, and financial performance

Price Discovery—2000 and Beyond

Determining fair prices in an environment of vertical integration, new production arrangements, and genetically tailored crops.

New Approaches to Direct Marketing by Farmers

The farmer as producer/marketer; direct marketing to communities, restaurants; monitoring the changing preferences of consumers

Implications of Dietary Guidelines

Factors in consumer demand for food; how the guidelines affect food production, processing, and marketing

3:45-5:15 p.m.—concurrent

The Future of Agricultural Risk Management Tools

What's ahead in agricultural commodity futures, options, and derivatives; agricultural insurance products for the next century; bundling risk management products

USDA Statistics—The Census and Beyond

Enhancements to the 1997 Census of Agriculture and the results; planning the statistics program of the future

The Role of New-Generation Cooperatives

Adding value to crops through cooperatively-owned farms, and a look at the strategies of two cooperatives

Emerging Markets in 21st Century Nutrition Programs

New outlets for farm products in nutrition programs; creative use of USDA's bonus commodities; expanding WIC farmers' markets

FORUM DINNER—6:00 p.m.

With featured speaker

Tuesday, February 23

MORNING OUTLOOK AND BREAKOUT SESSIONS

8:00-9:30 a.m.—concurrent

Outlook: Grains and Oilseeds

Cotton (including an official from China)

Fruits and Vegetables: New Business Strategies

How growers and processors are adapting to slower export growth and supply pressures in a competitive market

Risk Management and Environmental Improvement

Using markets and risk management tools to increase adoption of conservation practices; the role of crop insurance

10:00-11:30 a.m.—concurrent

Setting the Stage for New Trade Negotiations

Agricultural issues for trade talks ahead—FTAA, APEC, and the WTO mini-round; perspectives of industry and U.S. and foreign officials

Outlook for Emerging Technologies in the Sugar Industry

Advances in breeding and genetic engineering of sugar beets; cutting-edge changes in processing

Competition from Latin America

Latin America as a market, its infrastructure improvements, evolution of agricultural production, and adoption of biotechnology

Farmland Protection—Building on Past Successes

Overview of national trends and policies by the American Farmland Trust President; making farmland protection work at the local level

Livestock and Poultry Outlook for North America

Briefing on the Retail Food Price Outlook

NOON LUNCHEONS

Livestock; Cotton; Sweeteners; Grains and Oilseeds

Featured speaker at each luncheon

AFTERNOON OUTLOOK AND BREAKOUT SESSIONS

1:45-3:45 p.m. concurrent

Outlook: Dairy

Tobacco (including recent settlement developments)

Prospects for China: Importer or Competitor?

The future of Chinese agriculture, and viewpoints of China's Ministry of Agriculture and State Statistical Bureau

Food, Agriculture, and the Biotechnology Revolution

An overview of agricultural biotechnology, an industry perspective, and the public policy issues in biotechnology advances

Precision Agriculture in the 21st Century

Environmental implications of precision agriculture, and farmer and industry perspectives