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Livestock, Dairy, and Poultry Outlook

Leland Southard (Coordinator)

Meat Production in 2004 May Decline Fractionally

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Red meat and poultry production in 2004 is expected to total about 84.4 billion pounds, down fractionally from this year and 1.5 percent below 2002. The continuing decline in red meat production due to reduced animal inventories will only be partially offset by increasing poultry production. Poultry production, with a much shorter biological cycle, is expected to respond to expected higher broiler prices in 2003 and 2004 than in 2002 and lower feed costs in 2004.

With red meat production below year-earlier levels and increasing exports, hog and cattle prices are expected to continue to register gains again in 2004. Both feeder and fed cattle prices are expected to increase due to continuing declining animal numbers. Broiler prices in 2003 and 2004 are expected to average about 5 cents above 2002's 55.6 cents per pound. Both broiler production and exports are expected to increase in 2004.

Meat and poultry exports are expected to increase 3-4 percent in 2004, compared with a likely 3-percent gain this year. All major meats are expected to post gains in both 2003 and 2004. However, beef exports this year will likely be up less than 1 percent. Imports of cattle and hogs are expected to decline in 2004 as grain production recovers from the drought-reduced crop last year. Due to the expected larger grain crop, more animals will be retained in Canada for feeding.

First projections of 2004 dairy markets show only a slight rebound from this year's very low prices. Large commercial stocks at the start of 2004 will buffer the price effects of slow growth in milk production and recovering sales.

Forage Supplies Tight

Prices of other hays continued to rise sharply in April, reflecting the very tight supply of hay stocks and poor over-wintering conditions in the Northern Plains, the North Central region, and the western half of the country. But hay stocks were tight in most areas because of widespread drought in 2002. The farm price of other hay in April averaged nearly \$7 a ton above a year earlier.

However, hay stocks on May 1 were down only 1 percent from a year ago, due primarily to a 4-percent smaller hay crop in 2002. Disappearance between December 1, 2002 and May 1, 2003 was down 7 percent from a year earlier. Disappearance was down from the previous year despite unfavorable winter weather conditions in a number of areas and lingering drought in the central and northern Great Plains. Stocks were down sharply in Nebraska and South Dakota, while rising to near record levels in the southern Plains. Producers indicated in late March in the *Prospective Plantings* intentions to harvest 1 percent less hay acreage this year.

Herd Liquidation Continues, Dairy Cow Slaughter Up Sharply

Cattle inventories in early spring exhibit few signs of stabilizing and at this time suggest a major improvement in moisture/forage conditions this spring and summer will be necessary to even begin a movement toward female retention in 2004.

Cow slaughter remained large through April, with April beef cow slaughter up about 6 percent and dairy cow slaughter up about 16 percent. First-quarter beef and dairy cow slaughter rose 5 and 14 percent, respectively, both the largest since 1997. Second-half forage conditions will have to improve to provide any incentive to slow beef cow slaughter levels and to retain heifers from this year's calf crop for breeding in 2004. Dairy cow slaughter is likely to remain above year-earlier levels through next winter as the industry continues to adjust to lower milk prices, large numbers of replacement heifers entering the herd, and an increased number of producers leaving the industry. Beef cow slaughter is expected to decline below year-earlier

levels in late summer and fall if more normal forage conditions occur. Cow slaughter this fall and in 2004 is likely to drop well below levels of the past several years.

Feeder Cattle Supplies Up Marginally

Supplies of stocker/feeder cattle outside feedlots on April 1 were up 2 percent from a year earlier. Supplies have been held up due to reduced feedlot placements and larger net imports of feeder cattle. Net feeder cattle imports from Canada increased due to severe drought and reduced feed supplies there in 2001 and 2002. On-feed inventories on April 1 were down 8 percent from a year earlier and down 7 percent from 2 years ago. Net placements during the first quarter were down 2 percent from 2002. However, placements, largely off wheat pasture, appeared to have risen rapidly in April. This has been an excellent wheat-grazing year and apparently a larger acreage has been grazed out. The result has been large late winter-early spring placements at very heavy weights. Many of these cattle will be marketed by mid summer at heavy weights.

Weights Hold Down Production

Cattle feeders have done an excellent job keeping fed cattle marketings current. Strong demand, particularly for higher grading cattle, have kept prices \$5 to \$10 per hundredweight (cwt) above a year earlier. Slaughter weights, particularly for heifers, are sharply below the record levels of last year. Similar to the weather markets in 2001 and 1998, weights likely bottomed in April, but the rate of increase from these low levels will be slow until June. In both 2001 and 1998, weights rose only 3 to 4 pounds in May after hitting seasonal lows in April.

Although second-quarter production is expected to average near last year's level, slaughter levels have risen to offset the sharply lower slaughter weights. Weights are likely to approach last year's record level by mid-summer as heavy weight wheat-grazed cattle are marketed. Even as weights rise in late summer through fall, production will fall below year-earlier levels as feedlot inventories decline. Although placements this spring will

likely average near last spring's level, they will be heavily front loaded, with placements dropping off in late spring and for the next couple of years until inventories begin to rise, not likely before 2005.

Reduced feeder cattle imports from Canada, if crop/forage conditions continue to improve, will reverse the favorable net feeder cattle supply situation with Canada that has existed through early 2003. Some increase in feeder cattle exports from the Northwest region, relative to the low levels of the past couple of years, and likely more heifer retention, will tighten feeder cattle supplies following declining cattle inventories since 1996. Poor forage conditions, particularly since 1998 has ended each attempt by the industry to even begin a movement toward broad heifer retention.

Lower Slaughter Weights Result in Record Retail Prices

Declining slaughter weights and strong beef demand resulted in record retail beef prices in February and March. The record \$3.57 per pound set in March eclipsed February's \$3.48 record, which eclipsed the 2001 June record of \$3.476. Prices are expected to come off this pace in late spring as slaughter weights begin to rise and quality grades improve. In addition, consumers will make adjustments toward the relatively more favorable prices of pork and poultry. The weight declines and strong demand have forced prices to levels not expected until late this fall and into 2004, due largely to the very tight supply of Choice beef.

Low Cattle Inventory Holds Back Production In 2004

Cow slaughter is expected to drop sharply in 2004. Slaughter in 2001 through 2003 averaged near 5.75 million head each year. Slaughter is expected to drop to near 5.3 to 5.4 million head in 2004. Even if forage conditions improve, expansion may be slow as the industry will still be attempting to rebuild forage/grazing supplies and their financial base in 2004.

Beef production in 2004 is likely to decline 2 to 3 percent. Another shift toward record slaughter weights will partially offset declining slaughter levels, particularly female slaughter. An improving

forage base and another good grain harvest will be essential to support some shift toward herd expansion and heavier feeding weights. Recovery in the rate of economic growth in the U.S. and world markets will be essential to support strong beef prices and an improving export market.

Retail prices for Choice beef are expected to rise modestly in 2004 following a likely 4 to 5 percent jump this year. Fed cattle prices are expected to average near \$80 per cwt, up from this year's \$75 to \$77 per cwt average. Yearling feeder cattle prices are expected to rise in the second half of 2003 and move on into the low \$90s per cwt in late 2004 as heifer retention strengthens. Utility boning cow prices are likely to rise in the mid- to upper-\$40s as slaughter declines, and fed cattle slaughter weights rise increasing the demand for imported lean beef. World beef supplies are likely to continue to tighten, as droughts seem to be ending in Australia as well as the United States and Canada.

Beef Exports Limited by Slower Economic Growth and Continued BSE Concerns in Japan

Earlier optimism of beef exports soaring to a record in 2003 has been dampened by slower-than-expected world economic growth and lingering concerns about bovine spongiform encephalopathy (BSE) in Japan. Over the last 2 months, total U.S. beef exports have been revised downward by 105 million pounds--to 2.46 billion pounds. This current expectation is only marginally above last year's 2.45 billion-pound export level and slightly short of the record 2.47 billion pounds in 2000. Nevertheless, this year's near-record level is expected to occur in spite of total beef production anticipated to be 2-2.5 percent below production in the record export year. That exports can hold their own or increase in the face of declining production and temporary decreases in demand suggests that exports are likely to spike to record levels in 2004 as world economic growth picks up and BSE concerns abate.

The two most disappointing markets for beef exports are Mexico and Japan. Exports to Mexico are now expected to fall far short of last year's record, and Mexico is expected to lose its position

as the second largest U.S. beef export market to South Korea, from whom it had taken that position in 1997. While first-quarter exports to both Mexico and South Korea were significantly below year-earlier levels, exports to Korea are expected to improve for the rest of the year, helped by moderate, albeit slower economic growth. Consequently, U.S. beef exports to South Korea may exceed last year's level. Economic growth in Mexico, however, has slowed sharply since late last year as a result of the slowdown in growth of the U.S. economy, to which it is tightly bound. Moreover, the Mexican currency has lost 20 percent of its value against the U.S. dollar in the last 12 months. Slower economic growth in Mexico has reduced Mexican demand for beef while the depreciated currency has raised prices in terms of the Mexican peso. Exports of beef to Mexico are not expected to improve until the U.S. economy begins to accelerate later this year.

While first-quarter exports to Japan were 21 percent above last year's BSE-induced low level, they were below earlier expectations. Not only has the BSE-related consumption response been slower than expected, but deterioration of the already weakened Japanese economy has begun to affect the savings and job security of Japanese consumers, making them more cost-conscious. Statistics from Japan's *Agriculture and Livestock Industries Corporation* suggest that the rate of increase in beef consumption that was evident last fall has slowed. However, other statistics from the same source indicate that stocks have declined to their pre-BSE levels, which is favorable to imports. Beef exports to Japan are therefore not expected to return to their pre-BSE growth trajectory until well into 2004.

Beef Exports Expected To Increase Nearly 4 Percent in 2004

U.S. beef exports are expected to increase to a record 2.55 million pounds next year as concerns about BSE abate in Japan and improving world economic activity induces increased beef demand in most traditional markets. A return to higher economic growth is expected to especially help beef exports to Mexico, which is expected to vie with South Korea as the number two U.S. market next year. Higher U.S. beef prices are expected to

ration demand, however. One potential cloud on the horizon is the possible continuation or re-emergence of Sudden Acute Respiratory Syndrome (SARS), which is expected to contribute to reduced economic growth in some Asian countries this year, and could slow future economic growth.

Marginal Import Growth in 2003 Followed by Higher Growth in 2004

While first-quarter imports were 10 percent above the same period of 2002, nearly 40 percent were recorded in January and represent product ordered and placed under bond late last year in anticipation that reduced cow slaughter would create a greater need for imported manufacturing beef. Instead, the lack of forage as a result of continuing drought, and low milk prices and increased heifer replacement in the dairy industry induced a 9-percent increase in beef and dairy cow slaughter in the first quarter. Hence, 2003 began with record cold storage beef stocks. Although down 166 million pounds from the beginning of the year, cold storage stocks are still large and, with continued large cow slaughter, will help diminish the need for beef imports well into the second quarter.

Beef imports for the second quarter of 2003 are expected to be 3-4 percent below year-earlier levels as second-quarter cow slaughter increases 2-3 percent above the same period of last year. Meanwhile, declines in the carcass weight of all slaughter animals continue to reduce the amount of imported 90-percent lean trimmings needed to complement fed beef 50-percent fat trimmings. Finally, a relatively weak U.S. dollar also reduces the attractiveness of beef imports from Australia and New Zealand.

The situation will begin to change in the fourth quarter of 2003 as cow slaughter falls below year-earlier levels and imports increase by 1-2 percent. The market for processing beef will tighten significantly in the first quarter of 2004, when an 8-percent drop in cow slaughter is expected to induce a 10-percent increase in imports above year-earlier levels. Overall, reductions in cow slaughter next year are expected to result in record imports of 3.37 billion pounds, 4-5 percent above this year's level. Availability of imported product is expected to increase as a result of the re-entry of Uruguay into

the U.S. market now that it is again free of foot-and-mouth disease.

Weather and U.S. Demand for Feeder Cattle Dominate Live Cattle Trade in 2003 and 2004

The United States is expected to import a record 2.55 million live cattle in 2003, with about one-third of them expected to arrive in the fourth quarter as feeder cattle supplies decline cyclically and U.S. feeder cattle prices are expected to average in the low-\$90 per cwt range. Feeder cattle imports from Mexico were relatively light in the first quarter as prices averaged 3-4 percent below levels of a year ago, while imports from Canada were relatively high by historical standards because of a drought-induced shortage of feed grains in Canada. While prospects of a more normal grain crop might make keeping animals in Canada more attractive in the last half of this year, feeder cattle from both Canada and Mexico will be attracted to the increasingly tight U.S. feeder cattle market. Over half of live cattle imports this year will likely be feeder calves from Mexico.

Drought in Canada and the tight feeder cattle market in the United States will also limit U.S. feeder cattle exports to Canada. While up over last year's drought-induced low number, feeder cattle

exports to Canada are expected to be significantly below historical levels. Live cattle exports for 2003 will total about 275,000 head.

For 2004, trade in live cattle that could show up as beef products in retail meat cases after September 30 could be affected by the Country of Origin Labeling (COOL) law scheduled to become mandatory on retail meat products after that date. However, beef products that are exported, sold in restaurants, or used in processed products are exempt from the law. The exemption of a large amount of beef from COOL regulations reduces the uncertainty this law may have on cattle trade. More importantly, record feeder cattle prices and a return to normal weather in Canada are likely to be dominating influences on live cattle trade next year.

Feeder cattle prices are expected to average a record \$89-\$91 per cwt in 2004, over 4 percent higher than this year. While such higher prices will draw marginally more animals from Mexico, normal weather and higher feeder cattle prices in Canada are reasons to expect fewer imports of live animals from Canada. Overall, imports are expected to decline to 2.43 million animals in 2004, from 2.55 million in 2003. Higher feeder cattle prices are also expected to significantly reduce U.S. feeder cattle exports to Canada.

Total 2003 Hog Slaughter Estimate Increases Slightly on Higher April Slaughter

U.S. packers are expected to slaughter about 23.8 million hogs in the second quarter, slightly more than previously estimated. April slaughter, although larger than expected, will fall below year-ago levels for the first time this year. Slaughter for 2003 should come in at 99 million head, or, about 1.3 percent fewer hogs than in 2002. With higher dressed weights this year however, total pork production should be less than 1 percent below 2002. Second-quarter prices are expected to range between \$39 and \$41 per cwt (live equivalent, 51-52 percent lean). For 2003, hog prices should average about 11 percent higher than last year, or \$38.60 per cwt.

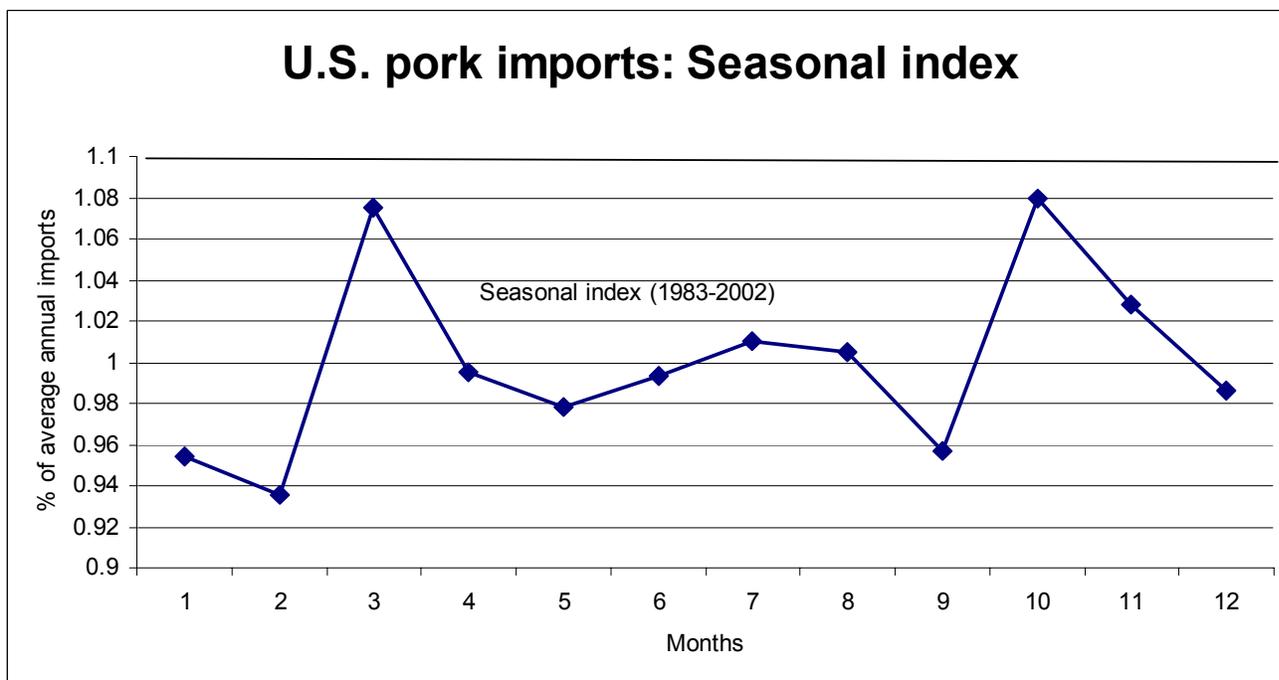
Lower Production and Higher Prices in 2004

The breeding herd reductions sustained by the U.S. pork industry since the June-August quarter of 2002 will gain traction in 2004. Pork production in

2004 is expected to be 1-2 percent lower than 2003, with per-cwt hog prices (live equivalent 51-52 percent lean) to average 11 percent higher than this year, at \$41-\$44 per cwt. The estimates depend on the assumption of normal weather conditions, particularly in the U.S. Corn Belt.

U.S. Pork Imports Up Sharply in the First Quarter of 2003

In the first quarters of 2003, the United States imported 289 million lb (carcass weight equivalent) of pork, versus 235 million lb a year ago—an increase of almost 23 percent. Pork imported into the United States comes mainly from Canada (more than 80 percent), and from Denmark (about 12 percent). While first-quarter imports are typically relatively high (see chart below), it is unusual to begin the calendar year with the increases seen so far this year. The early increase in pork exports is likely attributable to Easter demand, and expectations of continued depreciation of the U.S. dollar.



Adjustments to Low Dairy Prices Start Too Late To Help 2004

The very low prices of 2002 and 2003 probably will generate substantial adjustments in production and use of milk and dairy products. However, initial adjustments have been very slow to begin and quite modest, failing to develop much momentum. At this pace, considerable time will be needed for enough slowing in production and recovery in use to eat away the current surplus and commercial stocks. First projections of 2004 dairy markets show only a slight rebound from this year's very low prices.

Milk cow numbers are expected to start declining soon from their winter high. With ample replacement heifers now available, most of the earlier farm expansions probably have been brought up to capacity. Relatively few farms will be in a position to begin new expansions based on recent returns, and these farms may buy discounted existing units rather than build new ones. On the other hand, the exit of dairy farms due to low returns may be on the verge of picking up. Direct payments under the Milk Income Loss Contracts (MILC) have sufficiently augmented savings from 1998-2001 returns to enable many small producers to persist so far. However, the MILC payments can only offset a small share of the milk price drops and probably only delay, not forestall, exit of these farms.

By the start of 2004, milk cow numbers are projected to be about 1 percent below a year earlier, with declines widening to almost 2 percent for most of the year. These would be the largest decreases since the early nineties.

Concentrate feed prices are projected to ease in 2004, and milk-feed price ratios are expected to be a bit more favorable than in 2003, although still very low. A return to more normal culling, the renewed exit of farms with low herd averages, and a slightly less conservative approach to concentrate feeding should aid recovery in milk per cow growth. Output per cow is projected to rise more than 2 percent (on a daily average basis) in 2004, following generally weak performance during

2001-03. Adequate supplies of good forage will again be key to milk per cow prospects, because current stocks of dairy-quality forage probably are marginal.

The expected one-half percent rise in 2004 milk production would be far less than the 1.7-percent average during 1997-2002 and below normal growth in dairy product demand. Fractional increases in milk production have been somewhat unusual in recent years, with changes tending to either sizable increases or declines.

Dairy Demand Fails To Catch Fire

Commercial use of dairy products is expected to grow fairly briskly in 2004. The much lower prices should progressively stimulate sales, particularly in the restaurant and food processor markets. However, growth in dairy demand is not likely to fully recover from the 2002-03 slippage. Although the economy is expected to grow, there are a number of lingering weak spots and a seeming lack of vigor. Also, consumers evidently have shifted spending away from food.

Similar to adjustments in milk production, gains in dairy product sales have not developed much momentum. Increases in winter use appeared solid but were not very dramatic. Growth is not accelerating much and may be vulnerable to any significant strengthening in dairy prices. Considerably more robust demand, probably centered around cheese, likely would be needed during coming months to make much difference in 2004 prices.

Commercial stocks at the start of 2004 are projected to still be heavy, although probably not as large as during most of 2002 and early 2003. These stocks will buffer the price effects of slowing milk production and recovering sales. Similarly, the surplus of skim solids probably will be large enough to prevent any substantial increases in skim solids prices and to limit potential rises in cheese prices. However, the skim solids surplus is projected to fall to the lowest level since 1998. Meanwhile the surplus of milkfat is expected to be near this year's modest level.

In 2003, farm milk prices are expected to fall \$0.50 to \$1.00 from 2002's already low \$12.19 per cwt. Unless the pace of market adjustments accelerates

quickly in coming months, the recovery in 2004 farm milk prices does not seem likely to offset the 2003 decline, let alone the earlier drops.

Sheep and Lamb Outlook for 2004

Though the sheep inventory is still in decline, the rate of decline for 2004 is expected to slow. The decline in production in 2004 is also expected to slow. Offspring from lambs retained in 2003 are expected to be available for the market in 2004, slowing the rate of decrease of animals in the production chain. However, the increase in

production is not expected to be enough to significantly affect the tight overall lamb and mutton supply. Thus, prices are expected to remain fairly strong at above \$80 per cwt. With the weakening of the U.S. dollar relative to the Australian and New Zealand currencies, competition for the U.S. lamb market share is expected to be less intense, thereby maintaining fairly strong prices and slowing the rate of increase of lamb and mutton imports.

Previous issues in the *Livestock, Dairy, and Poultry Outlook* series included an annual summary of the forces shaping the industry and how those forces were expected to affect the current year's outlook. Because timeliness was an issue, in 2003, instead of providing a separate report covering all the commodities later in the year, we are including summaries for the various commodities in the LDP monthly newsletter as information becomes available. In the March issue, we provided summaries for dairy, beef trade, and pork trade. The April issue contains summaries for the domestic beef, domestic pork, sheep, and poultry. Access these annual summaries on the *Livestock, Dairy, and Poultry Outlook* page, <http://www.ers.usda.gov/publications/ldp/>.

Broiler Production Down, Turkey Production Even in First-Quarter 2003

U.S. broiler production totaled 7.735 billion pounds in the first quarter of 2003, down 1.1 percent from a year earlier. The reduction was due to a 2.5-percent reduction in the number of birds being slaughtered. The reduction in the number of birds slaughtered was partially offset by a 1.2-percent increase in average bird weight at slaughter to 5.17 pounds. This pattern is expected to continue into the second quarter of 2003 with production forecast at 8.15 billion pounds, down 1 percent from the previous year. During April, the weekly broiler slaughter reported by the Agricultural Marketing Service (AMS) averaged around 3 percent lower than during the same weeks a year earlier. Again the decline was in the number of birds being slaughtered and was being somewhat offset by higher average bird weights. Other indicators pointing to lower future production are the weekly declines in the number of chicks placed for growout. Over the last 6 weeks (through April 30) the number of chicks being placed for growout has continued to average slightly less than 1 percent lower than in the same period the previous year. Broiler production for 2004 is forecast at 32.7 billion pounds, up only 1-2 percent from 2003 as large overall supplies of meat products (down from 2003, but still the third highest ever) and slow growth in the export market hold down growth in prices.

Turkey production totaled 1.379 billion pounds in first-quarter 2003, about even with the previous year (1.378 billion pounds in first-quarter 2002). The situation with turkey production was the opposite from broilers, with the overall number of birds going to slaughter increasing slightly, but the increase in bird numbers being completely offset by slightly lower average weights. During the fourth quarter of 2002 and the first quarter of 2003 the number of poults being placed for growout has totaled 145.6 million birds, down 2.1 percent from the same period a year earlier. Turkey production for the second quarter is forecast at 1.425 billion pounds, down slightly more than 1 percent from

the previous year. Turkey production in 2004 is expected to reach 5.78 billion pounds, 1-2 percent higher than the previous year. With almost no growth expected in exports, per capita consumption of turkey is expected to reach almost 18 pounds in 2004.

Broiler Stocks Down, but Turkey Stocks Higher

Broiler stocks for the end of first-quarter 2003 were 641 million pounds, down 20 percent from 804 million pounds the previous year. Most of the decline came in lower holdings of broiler parts. At the end of the first quarter, stocks of broiler parts totaled 619 million pounds down 20 percent lower than a year earlier. Stocks of whole birds were also lower, falling to 23 million pounds or 22 percent lower than the previous year. With the lower stocks and anticipated lower production in the second quarter, broiler prices for a number of parts, especially those consumed chiefly in the domestic market, are expected to gradually strengthen.

Ending turkey stocks for the first quarter of 2003 were 533 million pounds, 16 percent higher than the previous year. There was a wide difference in the stock levels for whole birds and parts. Stocks of whole birds were down 3 percent from the previous year, while stocks of turkey parts totaled 318 million, up 35 percent from a year earlier. The stock levels were reflected in first-quarter prices, with prices for whole birds (toms and hens) averaging 2 percent higher, while the first-quarter prices for most turkey parts were lower than during the same period in 2002.

Broiler Export Forecast Lowered for 2003

The broiler export forecast for 2003 has been reduced to 5 billion pounds. This is a reduction of 125 million pounds from previous forecasts. The lower forecast is chiefly due to lowered projections for economic growth in a number of Asian countries and lower than expected exports to Mexico. The forecasts have already taken into account the import quotas to Russia that began on April 29 and assume that U.S. companies will

export the quota maximum and that most of the exports will be broiler products. The broiler export forecast for 2004 is 5.2 billion pounds, up 4 percent from the previous year. The growth is expected to

come from higher shipments to Asia. However, there still is some uncertainty about the level of broiler shipments that will be allowed into Russia during 2004.

Production Grows, but Exports Decline in 2002

U.S. poultry (broiler, turkey, and other chicken) production in 2002 reached 38.1 billion pounds on a net ready-to-cook (RTC) basis, up 3.2 percent from 2001. Domestic consumption increased 5.7 percent over 2001, absorbing the increased supplies available on the domestic market as exports fell by 13.6 percent. The decrease in exports was due mainly to lower broiler shipments, which were impacted by a ban over part of the year on exports to Russia and partial bans by other countries in response to disease outbreaks in the United States. For both broilers and turkey, falling exports also led to increases in stocks, placing downward pressure on prices.

In 2003, poultry production is expected to be down slightly from 2002. Total poultry exports are forecast to increase, but remain well below the record levels in 2001. Exports to Russia over the first half of 2003 are expected to rise compared with reduced levels of 2002. However, exports to Russia in the second half of the year will be limited by the quotas that have been placed on poultry imports.

Broiler Prices Down in 2002; But Expected To Be Higher in 2003

Federally inspected net broiler production rose 3.1 percent in 2002, to 31.9 billion pounds. However, production is expected to fall in 2003, with net broiler production expected to decline slightly from 2002. The increase in broiler production in 2002 was the result of a 1.6-percent increase in the number of birds slaughtered and a 1.5-percent increase in average bird weights.

The wholesale composite price for chicken fell by 9 percent in 2002, to 56.2 cents a pound, but the composite retail price for chicken rose by 2.5 percent. The decline in the wholesale composite price was primarily a reflection of lower prices for wings, drumsticks, and thighs as wholesale prices

The growth in the retail composite chicken price also reflects the relative strength of breast meat prices, as increases in breast meat prices offset declining prices for whole birds and legs.

Total U.S. broiler exports fell by 13.6 percent in 2002. The exports of 4.8 billion pounds accounted for about 15 percent of U.S. broiler production. Exports fell mainly because of the decrease in shipments to Russia, which totaled 1.5 billion pounds in 2002, down 34 percent from the previous year but still 32 percent of all U.S. broiler exports. The decrease was chiefly due to a ban that Russia had placed on imports of U.S. poultry for a portion of the year.

China and Hong Kong combined represent the second-largest market (16 percent) for U.S. broiler exports, totaling about 764 million pounds in 2002. In 2002, total broiler exports to Mexico amounted to 325 million pounds, a decrease of about 15 percent from 2001. Mexico remained the third largest market for U.S. broiler exports, but the economic slowdown that impacted the U.S. economy also impacted economic activity in Mexico. Other countries showing considerable growth in U.S. broiler imports were Korea, Guatemala, Haiti, and Cuba. Although trade regulations make exports to Cuba more difficult, broiler exports in 2002 totaled over 93 million pounds. Another interesting development was a 59-percent jump in exports to Angola. With total shipments of 105 million pounds in 2002, Angola was the ninth largest market in terms of volume.

Broiler exports are expected to increase by 4.2 percent in 2003. Although there is a quota on exports to Russia starting on May 1, total exports to Russia for 2003 are expected to be higher than in 2002. Mexico's reduction of its tariffs on many broiler products is also expected to boost shipments over the 2002 levels. With no new disease outbreaks, shipments are also expected to increase to the China/Hong Kong market and to Japan.

Russia Places Quota on Poultry Imports

Over the last several years Russia has become the key market for U.S. broiler exports. In 2001 broiler exports to Russia totaled 2.3 billion pounds or 41 percent of total U.S. exports and 7 percent of total U.S. broiler production. Starting May 1, 2003, Russia has placed a quota on imports of poultry products. The quota for May 1 through the end of 2003 will be 744,000 metric tons. Of this total the United States has been allocated 553,500 metric tons. However, 141,100 tons of the U.S. quota has been specifically put aside for imports of mechanically deboned meat (MDM). In 2002, 76 percent (521,000 metric tons) of all the U.S. broiler products shipped to Russia were frozen leg quarters. With the quota of 141,100 metric tons for MDM, this leaves only 412,300 metric tons for other products such as leg quarters. However, the 521,000 metric tons were shipped over a 12-month period.

Other markets have also been affected by various bans based on disease and food safety issues. On January 1, 2002, the Ukraine banned U.S. chicken imports, citing the use of antibiotics in U.S. broiler production and antimicrobial rinses in U.S. processing plants. The impact of the ban to the Ukraine has been hard to determine because poultry shipments have varied so widely from year to year. Exports to Japan (the fourth largest market by volume) were also interrupted by a series of bans on poultry product imports from specific U.S. States. These bans were based on outbreaks of low-pathogenic strains of Avian Influenza (AI). At different times, bans were enacted on poultry products from Pennsylvania, Maine, Virginia, West Virginia, North Carolina, and Texas.

Turkey: Exports and Prices Fall Again in 2002

U.S. turkey production in 2002 set another record, totaling 5.6 billion pounds (net RTC), 2.7 percent higher than the previous year. The increase was due to a higher number of turkey slaughtered and heavier average weights. The average wholesale whole-bird prices for hens in the East averaged 64.5 cents per pound, down 2.8 percent compared with 2001. Retail whole-bird prices also declined, dropping 4 percent. Most of the increase in

production came in the first half of the year, as production in the second half of 2002 was just over 1 percent higher than the previous year. Turkey production is expected to decrease slightly in 2003, and wholesale whole-bird prices are expected to increase 3-4 percent.

U.S. turkey exports in 2002 were 439 million pounds, down almost 10 percent from 2001. Exports accounted for about 8 percent of total production. The decrease in exports came mostly from lower shipments to Mexico. This was the second consecutive year that turkey exports had declined to Mexico, which is the largest market. Exports to Mexico were likely affected by the slowdown in its economy. Mexico imports mostly MDM and fresh and chilled turkey parts, which are used to produce sausages and other prepared meats. Adding to the decline were much lower shipments to Russia. The turkey exports to Russia were impacted by the ban on poultry imports that was in place for part of the year.

Eggs: Higher Production and Falling Exports Push Consumption Upward

Total U.S. egg production in 2002, table and hatching, totaled 7.2 billion dozen, about 1 percent more than 2001. Egg production is expected to increase only slightly in 2003. Table eggs accounted for 85 percent of total production in 2002, and are expected to maintain the same proportion in 2003. Hatching egg production declined slightly (less than a half of 1 percent), but is expected to rise slightly in 2003. The increase in 2003 is expected to come mostly from higher production of broiler-type eggs.

Wholesale table egg prices averaged 67.1 cents a dozen in 2002, almost exactly the same as in 2001. However, retail egg prices increased by 11 percent, widening the wholesale to retail spread by 48 percent. Retail egg prices had changed little over the previous several years. The wholesale egg market is a relatively thin market, where small changes in supply can have a large price impact.

Per capita egg consumption in 2002 rose slightly to 254.6 eggs, about one egg higher than the previous year. Since the mid-1990s, annual egg consumption

has jumped over 20 eggs per person. In large part this is due to increasing demand for breaking eggs by the commercial baking, confections, and fast food industries. Since 1996 the amount of eggs going to the breaking market has risen by about 25 percent and now uses about one-third of total table egg production. Wholesale egg prices in 2003 are expected to increase around 10 percent due to the slowing growth in production.

U.S. egg exports in 2002 were 174 million dozen, down 8 percent from the previous year and 2 percent of total U.S. egg production. Shell eggs

(for human consumption and hatching) accounted for almost half of total U.S. exports. Canada, Belgium, Hong Kong, Japan, and Mexico were the largest export markets, receiving nearly three-quarters of all U.S. egg exports. The 8-percent increase in exports to Belgium (due to a shortfall in European production) helped to partially offset a 26-percent decline in exports to Japan and a drop of 6 percent in shipments to Mexico. Exports to Canada were up 4.5 percent with shipments (47.4 million dozen) twice as large as those to any other country. U.S. egg exports in 2003 are expected to decline somewhat as EU egg production recovers.

Kenneth H. Mathews, Jr.

Despite differences in their effects on animals, a wide range of animal diseases have the potential to affect producers and consumers in some very similar ways. The common elements in potential effects from these diseases are declines in productivity or the destruction of infected animals, which can result in increased production costs, lost product market shares, higher food costs for consumers, and lost trade.

Many animal diseases are found in the United States and outbreaks occur occasionally. Examples include brucellosis, anthrax, rabies, bovine tuberculosis, low-pathogenic avian influenza, and, since 1999, West Nile virus. Some diseases like FMD, not confirmed in the United States since 1929, and bovine spongiform encephalopathy (BSE or "mad cow disease"), which has never been detected in the United States, remain threats because of the potential for their introduction and the potential each has for widespread adverse effects on production, the economy, and international trade.

Animal disease effects can range from barely-perceptible declines in the productive output of a few animals on a farm to widespread disease outbreaks where millions of animals are infected or destroyed to control a highly contagious disease. Initially, domestic meat supplies can increase because of restrictions on exports from the infected country. Later, because of international restrictions on exports, the number of animals destroyed during the outbreak may exceed the number of animals forced on the domestic market. Then, domestic meat supplies can decline and can lead to higher prices at retail meat markets. In addition, domestic transportation restrictions can lead to bottlenecks ranging from the inability to get market-ready livestock from the farm to processors and feed shortages to local gluts or shortages at retail outlets. Some livestock diseases and pathogens, like *E. coli* and *Salmonella*, whose effects on livestock production are relatively minor, can still have serious implications for humans. Some diseases, like BSE, can survive slaughter and food manufacturing processes and can lead to serious foodborne illnesses in humans. Other diseases, like FMD, do not affect the safety

of meat, yet this meat is not allowed into the food chain. In this case and despite indemnities, the destruction of livestock seriously affects producers' financial well-being.

In some cases, a disease may affect one species and not affect another at all, but because of the mode of disease transmission, meat from neither species is allowed to enter the human food supply. For example, if FMD were to occur in the United States, all cattle, pigs, and sheep in the vicinity of the disease outbreak would be affected by the disease and would be quarantined. Poultry are not susceptible to FMD, but because they can become carriers of the virus, those birds within quarantine areas could be destroyed along with other quarantined animals. Some diseases result in restrictions on movements or special sanitation-disinfection requirements for humans, vehicles used to transport humans, livestock feed, or livestock themselves. Other diseases are more specific, like END that affects poultry and some other bird species. END can result in poultry and poultry product restrictions, but does not result in constraints on uses of other livestock from a quarantined area. Finally, several animal diseases can cross species barriers, infecting both animals and humans. Examples include BSE, West Nile virus, tuberculosis, and brucellosis. Finally, livestock can function as carriers that, while not directly infected, can transmit diseases to humans, as with *E. coli* and *Salmonella*.

Periodic disease outbreaks in the United States and around the world can have significant effects on the producers involved, and in some cases, the effects have generated more widespread effects throughout the affected economies. For example, several countries, including the United States, restricted the importation of live cattle from the United Kingdom when BSE was first described in 1984. In 1991, the U.S. ban was extended to cattle and beef products. The announcement in 1996 of a possible connection between BSE and variant Creutzfeldt-Jakob disease, the fatal human variant of BSE, prompted a number of additional restrictions on, not only live animals, but on livestock products and livestock feed ingredients containing meat and bone meal. In the United

States, restrictions extend to imports from any country in which BSE is discovered or for which there is a high risk of BSE. The United Kingdom has slaughtered almost 6 million head of cattle based on approximately 180,000 confirmed cases of BSE since 1984. Total costs to the United Kingdom since the BSE outbreak began have been estimated at over \$5 billion. An FMD outbreak in 2001 that compounded effects from BSE has been estimated to have cost the United Kingdom economy approximately \$11.5 billion, primarily in lost production, trade, and tourism.

A second example is the Exotic Newcastle disease (END) that has been confirmed in backyard poultry flocks in the Southwestern United States, but only commercial poultry flocks in California have been infected. Almost 3.5 million birds have been destroyed. The outbreak has already had an impact on U.S. poultry trade with many countries. Most countries have banned poultry and poultry products from quarantined States. Some countries have banned poultry from an even wider area, including Mexico where END is endemic. The European Union, Guam, and Argentina initially went beyond

a regional ban by banning poultry and poultry products from all of the entire U.S. mainland. However, as of February 3, 2003, the European Union ban was revised to affect only poultry and poultry products from California, Nevada, and Arizona. Texas and New Mexico have since been added to the list. In 2002, total United States exports of poultry and poultry products amounted to about 14 percent of total production and were valued at about \$1.9 billion. Since END has been found only in backyard flocks and a few commercial laying flocks, the impact on poultry trade has been relatively minor. Poultry products can be moved through the quarantined area, but only if in sealed containers.

Increased international trade and travel, threats from bioterrorism, and the occurrence of new or more virulent strains of livestock diseases have increased the potential for outbreaks of these and other livestock diseases. Implications for human health and potential economic burdens throughout the economy have prompted increasing levels of surveillance and monitoring in the United States for many livestock diseases.

Contacts and Links

Contact Information

Leland Southard (coordinator)	202-694-5187	southard@ers.usda.gov
David J. Harvey (poultry)	202-694-5177	djharvey@ers.usda.gov
Ron Gustafson (cattle)	202-694-5174	ronaldg@ers.usda.gov
Dale Leuck (beef trade)	202-694-5186	djleuck@ers.usda.gov
Keithly Jones (sheep and lambs)	202-694-5172	kjones@ers.usda.gov
Mildred Haley (hogs/pork)	202-694-5176	mhaley@ers.usda.gov
Jim Miller (dairy)	202-694-5184	jjmiller@ers.usda.gov
LaVerne Williams (statistics)	202-694-5190	lwilliam@ers.usda.gov
Laverne Creek (web publishing)	202-694-5191	lmcreek@ers.usda.gov
Donald Blayney (dairy)	202-694-5171	dblayne@ers.usda.gov
Fawzi Taha (eggs)	202-694-5178	ftaha@ers.usda.gov

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Related Article

The following are links to recent articles (in Adobe Acrobat format).

Economic and Structural Relationships in U.S. Hog Production

<http://www.ers.usda.gov/publications/aer818/> The hog industry is becoming increasingly concentrated among fewer and larger farms, and becoming more economically efficient. Of paramount concern are increasing market control and power concentrated among packers and large hog operations, and the manure management problem posed by an increasing concentration of hog manure on fewer operations. Addressing these concerns through regulations would likely increase costs to consumers, and could result in significant changes in the location of hog production facilities, with ripple effects in local economies. [William D. McBride](#), (202) 694-5577 and [Nigel Key](#), (202) 694-5567).

Data

Retail Price Reporting for Meat

<http://www.ers.usda.gov/Data/Meatscanner/> A new ERS database contains monthly average retail prices for selected cuts of red meat and poultry, based on electronic supermarket scanner data. While not based on a random sample, the raw data underlying the database are from supermarkets across the United States that account for approximately 20 percent of U.S. supermarket sales. [Leland Southard](#), (202) 694-5187.

Web Sites

Cattle, <http://www.ers.usda.gov/briefing/cattle/>

Hogs, <http://www.ers.usda.gov/briefing/hogs/>

Poultry and Eggs, <http://www.ers.usda.gov/briefing/poultry/>

Dairy, <http://www.ers.usda.gov/briefing/dairy/>

WASDE, <http://www.usda.gov/oce/waob/wasde/latest.pdf>

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Red meat and poultry forecasts

	2002					2003					2004	
	I	II	III	IV	Annual	I	II	III	IV	Annual	I	Annual
Production, million lb												
Beef	6,377	6,833	7,097	6,783	27,090	6,283	6,825	6,925	6,200	26,233	6,000	25,650
Pork	4,780	4,797	4,832	5,255	19,664	4,889	4,725	4,710	5,190	19,514	4,775	19,300
Lamb and mutton	58	54	51	56	219	49	52	50	52	203	50	198
Broilers	7,819	8,234	8,251	7,936	32,240	7,735	8,150	8,200	8,100	32,185	7,900	32,725
Turkeys	1,378	1,441	1,412	1,482	5,713	1,379	1,425	1,425	1,475	5,704	1,375	5,775
Total red meat & poultry	20,589	21,543	21,837	21,700	85,669	20,511	21,353	21,485	21,189	84,538	20,280	84,365
Table eggs, mil. doz.	1,506	1,518	1,551	1,573	6,148	1,511	1,520	1,555	1,580	6,166	1,520	6,205
Per capita consumption, retail lb 1/												
Beef	16.2	17.5	17.3	16.6	67.6	16.1	17.1	17.5	14.8	65.5	15.2	62.9
Pork	12.3	12.6	12.7	13.8	51.5	12.3	12.6	12.7	13.8	50.6	12.2	49.6
Lamb and mutton	0.3	0.3	0.3	0.3	1.2	0.3	0.3	0.3	0.3	1.1	0.3	1.1
Broilers	19.2	20.8	20.6	19.9	80.5	19.3	20.2	20.2	19.6	79.3	19.4	79.4
Turkeys	3.5	3.9	4.4	5.9	17.7	3.6	4.0	4.3	5.8	17.7	4.0	17.9
Total red meat & poultry	52.1	55.6	55.8	57.0	220.5	52.3	54.4	55.0	54.3	216.1	51.6	212.9
Eggs, number	62.4	62.6	64.0	64.6	253.7	62.2	62.3	63.5	64.4	252.3	61.6	250.9
Market prices												
Choice steers, Neb., \$/cwt	70.19	65.58	63.29	69.10	67.04	77.82	75-77	72-76	74-80	75-78	76-82	77-84
Feeder steers, Ok City, \$/cwt	81.24	76.96	78.87	83.08	80.04	78.38	82-84	86-90	88-94	83-87	85-91	86-92
Boning utility cows, S. Falls, \$/cwt	41.56	42.28	37.69	35.69	39.23	40.32	43-45	43-47	43-47	43-44	43-47	45-48
Choice slaughter lambs, San Angelo, \$/cwt	66.62	66.00	74.60	82.02	72.31	91.92	87-89	83-85	79-85	85-88	79-85	79-86
Barrows & gilts, N. base, i.e. \$/cwt	39.43	35.03	33.86	31.34	34.92	35.38	39-41	40-42	36-40	38-39	39-43	41-44
Broilers, 12 City, cents/lb	56.00	56.10	56.40	53.70	55.60	60.30	59-61	59-63	60-64	60-62	57-61	58-63
Turkeys, Eastern, cents/lb	60.00	62.90	66.70	68.20	64.50	61.10	61-63	64-68	69-75	64-67	59-63	64-69
Eggs, New York, cents/doz.	69.10	58.40	65.30	75.40	67.10	77.20	68-70	68-72	77-83	72-76	72-78	65-70
U.S. trade, million lb												
Beef & veal exports	572	601	662	612	2,447	585	635	630	610	2,460	600	2,550
Beef & veal imports	737	934	839	708	3,218	775	900	835	720	3,230	850	3,365
Lamb and mutton imports	48	44	32	38	162	39	43	36	42	160	44	167
Pork exports	382	416	401	415	1,614	405	425	400	430	1,660	405	1,695
Pork imports	235	262	275	299	1,071	275	285	285	300	1,145	300	1,200
Broiler exports	1,204	1,119	1,257	1,219	4,800	1,250	1,200	1,250	1,300	5,000	1,250	5,200
Turkey exports	129	107	100	103	439	115	110	105	120	450	115	465

1/ Per capita meat and egg consumption data are revised, incorporating a new population series from the Commerce Department's Bureau of Economic Analysis based on the 2000 Census.

ECONOMIC INDICATOR FORECASTS ^{1/}

	2001		2002					2003				
	IV	Annual	I	II	III	IV	Annual	I	II	III	IV	Annual
GDP, chain wtd (bil. 1996 dol.)	9,248	9,215	9,363	9,388	9,465	9,503	9,436	9,554	9,619	9,701	9,786	9,672
CPI-U, annual rate (pct.)	-0.4	1.9	1.4	3.4	1.9	2.4	2.3	2.5	2.1	2.0	2.2	2.2
Unemployment (pct.)	5.6	4.8	5.6	5.9	5.7	5.9	5.8	6.0	6.0	5.9	5.7	5.9
Interest (pct.)												
3-month Treasury bill	1.9	3.4	1.7	1.7	1.6	1.3	1.6	1.2	1.3	1.5	1.8	1.4
10-year Treasury bond yield	4.8	5.0	5.1	5.1	4.3	4.0	4.6	4.0	4.2	4.4	4.6	4.3

1/ Source: Survey of Professional Forecasters, Philadelphia Federal Reserve Bank, February 2003.

DAIRY FORECASTS

	2002					2003					2004	
	I	II	III	IV	Annual	I	II	III	IV	Annual	I	Annual
Milk cows (thous.)	9,112	9,149	9,153	9,148	9,141	9,155	9,130	9,090	9,060	9,110	9,010	8,950
Milk per cow (pounds)	4,653	4,811	4,566	4,543	18,573	4,692	4,860	4,620	4,645	18,815	4,860	19,305
Milk production (bil. pounds)	42.4	44.0	41.8	41.6	169.8	43.0	44.4	42.0	42.1	171.4	43.8	172.8
Commercial use (bil. pounds)												
milkfat basis	40.7	42.2	43.8	43.9	170.5	41.4	43.5	44.2	44.9	174.0	42.7	177.7
skim solids basis	39.3	40.6	42.3	41.2	163.4	40.1	41.5	42.8	42.2	166.6	41.5	171.8
Net removals (bil. pounds)												
milkfat basis	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.5	0.1	1.3	0.4	1.3
skim solids basis	2.7	3.5	2.1	1.5	9.8	3.1	2.9	1.4	1.3	8.7	1.7	5.1
Prices (dol./cwt)												
All milk ^{1/}	13.07	12.10	11.37	11.93	12.12	11.37	10.65	10.80	11.65	11.10	11.15	11.15
							-10.95	-11.40	-12.55	-11.60	-12.15	-12.15
Class III	11.38	10.59	9.59	10.10	10.42	9.52	9.45	9.70	10.15	9.70	9.50	9.85
							-9.75	-10.30	-11.05	-10.20	-10.50	-10.85
Class IV	11.08	10.73	10.36	10.52	10.81	9.89	9.55	9.70	9.85	9.70	9.40	9.60
							-9.95	-10.40	-10.85	-10.30	-10.50	-10.70

1/ Simple averages of monthly prices. May not match reported annual averages.