

AGRICULTURAL OUTLOOK



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Government Payments To Farmers. . . Corn Outlook. . . Ag Exports. . . Food Prices. . . Taiwan's Hog Industry. . .

Corn Production & Use to Hit Record Highs

Record U.S. corn production is forecast for 2000, with higher acreage planted and record yields. Anticipated record-high domestic demand and bright prospects for exports will limit the stocks gain. Nevertheless, ending stocks are expected to be the highest since 1987/88, and market prices will remain weak. Expanding world corn trade (to the highest level in over a decade), combined with low U.S. corn prices and reduced competition from China and Eastern Europe, is expected to result in a sharp increase in U.S. share of world exports.

U.S. Ag Exports to Edge Higher in Fiscal 2001

The value of U.S. agricultural exports will climb in fiscal 2001, for the second year in a row, according to USDA projections. Exports should increase to \$51.5 billion—2 percent over revised estimates for fiscal 2000—marking a continuing upswing since the Asian financial setbacks of 1997–99. A rise in volume (quantity) accounts for much of this gain, as large global supplies of many commodities are expected to keep prices relatively low. Exports of high-value products (HVP's)—that is, all agricultural exports other than bulk commodities—are projected up just 0.6 percent to \$33 billion, reflecting projected gains in horticultural products and soybean oil. Increased demand for U.S. agricultural exports reflects favorable economic conditions worldwide. Also, the dollar is expected to depreciate against the euro, yen, and Canadian dollar, making U.S. exports more competitive in developed country markets.

Food Price Inflation to Remain Low in 2000 & 2001

Consumers continue to see only modest increases in food prices, with the Consumer Price Index (CPI) for all food forecast to rise 2.3 percent in 2000 and 2–2.5 percent in 2001. This follows increases of 2.2 percent in 1998 and 2.1 percent in 1999. In 2000, generally lower prices for fruits, due in part to a rebound in cit-



rus output, are offsetting higher prices for red meat that result from strong demand. Modest increases are forecast for most food categories next year.

Farm Program Benefits Affect Planting Decisions & Ag Markets

Direct government payments, topping \$20 billion in 1999 and forecast even higher in 2000, have boosted farm income during the last 2 years, but effects on resource allocation and agricultural markets vary across programs. USDA's Economic Research Service analyzed four farm programs—production flexibility contracts, crop insurance, marketing loans, and disaster assistance—to explore effects on agricultural markets of program-related economic incentives that may alter production decisions. Among the findings was that production flexibility contract payments create a small incentive to increase aggregate production, with the mix of crops planted based on market signals. Crop insurance and marketing loans create direct incentives to expand production of specific commodities by increasing expected returns. Ad hoc disaster assistance may have some influence on production decisions if producers have expectations of future assistance based on past government actions.

Farm Payments & the Rural Economy

Government support for the farm sector is frequently linked by advocates of farm program payments to survival of rural communities. In the past decade, about 8 of every 10 dollars in Federal direct farm payments went to farms in nonmetropolitan (nonmetro) counties. The payments smooth farm income fluctuations resulting from swings in commodity prices, and inject cash that supports other rural businesses. But farm program payments are a small fraction of what the Federal government spends in rural areas. In 1998, per capita Federal spending in nonmetro counties totaled \$4,725, including only \$182 for farm payments. Nevertheless, government payments may play a significant role in some local economies, particularly the 556 nonmetro counties identified as “farm-dependent” because of the importance of farm income there. In farm-dependent counties, farm payments were much higher—\$937 per capita—but still less than one-fifth of \$5,369 in per capita Federal spending.

Taiwan's Hog Industry—3 Years After Disease Outbreak

The highly contagious foot-and-mouth disease (FMD) that hit Taiwan's densely packed hog farms in 1997 is under control. The outbreak ravaged Taiwan's hog industry, eliminating Japan's single largest source of imported pork, and creating a marketing opportunity for other exporters, including the U.S. Taiwan's authorities have taken advantage of the FMD crisis to address generally the problems of hog farming on the island. Even before the FMD outbreak, official policy aimed to reduce the number of hogs, because raising hogs posed a serious environmental hazard to this land of limited water resources and more than 20 million people. Taiwan's hog farmers are not expected to reclaim their lucrative pork export market in the near future, mainly because Taiwan remains a listed FMD-infected area. Another fundamental problem for Taiwan's hog industry is the high cost of production—in part because all feed ingredients must be imported—that makes Taiwan vulnerable to import competition.

Briefs

Livestock, Dairy, & Poultry**Decline in Cattle Inventory to Continue**

The decline in cattle inventories that began in 1996 is likely to continue at least through 2001. Cattle and beef cow inventories were both down 1 percent from a year earlier on July 1, with beef cow replacement heifers down 2 percent. Although beef cow slaughter is down, the number of heifers retained for breeding and the number of heifers calving and entering the cow herd continue to decline. Large numbers of heifers were placed on feed rather than retained for the breeding herd in 1999 and were slaughtered in first-half 2000. Although cattle prices are attractive, drought has resulted in producers continuing to place many heifers in feedlots, which will add to beef supplies early next year. Before the cattle inventory can start to stabilize, heifer retention has to begin—a process that will not be underway until 2001.

Poor pasture-range conditions due to drought in the South and West have been forcing lighter weight cattle into feedlots since early summer. During August, drought conditions worsened in these areas and spread into the Central Plains. From early August to mid-September, the share of pasture and range conditions rated “poor” and “very poor” increased dramatically in several states: Arkansas (from 13 percent to 78), Kansas (from 27 percent to 64), Missouri (from 16 percent to 56), and Oklahoma (from 6 percent to 51). In Texas, which has the largest beef cow inventory, the share increased from 51 percent to 76.

Feeder cattle supplies outside feedlots and available for grazing programs and placement on feed continue to decline—supplies outside feedlots on July 1 were down nearly 3 percent from a year earlier. Dry pasture conditions forced early weaning of this year’s calf crop, and many were placed on feed given the attractive grain prices. Prices for feeder cattle (600-650 pounds) averaged \$94 per cwt in August, \$12 above a year earlier, while corn prices averaged \$1.48 per bushel, down \$0.27.

Cattle-on-feed inventories for feedlots with over 1,000 head of capacity on September 1 in the historic seven-states were up 10 percent from a year earlier and 16 percent above 2 years ago. Feedlot placements during August remained record large, while feedlot marketings rose 8 percent. The largest increases were in the under-700-pound category as drought forced early weaning of calves. In July, many cattle weighing over 800 pounds may have been heifers that producers had originally intended to retain for the breeding herd. Large numbers of lightweight stocker cattle have been imported from Mexico to supplement declining U.S. inventory of feeder calves.

Beef production will set another record in 2000 as slaughter weights are sharply above last year’s record and continued large numbers of feedlot placements of 800+ pound cattle add to already large supplies. Production will likely rise 1-2 percent this year from the 1999 record. Cow slaughter continues to decline, but steer and heifer slaughter remains large.

Production in first-half 2001 continues to be revised upward as more cattle are forced into feedlots, but second-half production estimates for next year are pulled back to compensate for larger first-half marketings. Fewer calves are likely to be placed on fall-winter grazing programs unless forage conditions improve quickly. Low grain prices and continued strong fed-cattle prices (though declining seasonally) are encouraging large feedlot placements. Fed-cattle marketings may decline very little until second-half 2001 and only then if grazing conditions this fall begin to improve. First-half beef production is likely to decline 2-3 percent from a year earlier, while second-half production may decline 5-9 percent. Improved forage conditions and stronger heifer retention for breeding could pull 2001 production down even more.

Fed-cattle prices began to stabilize in late August through mid-September following early August lows as the market began absorbing larger supplies of higher quality beef. The price spread between Choice and Select beef declined from near \$15 per cwt in May-June to \$4 in August. The market is now testing just how much additional demand exists for higher quality beef in the hotel-restaurant-export market and how much could be sold through typical retail outlets as supplies become available. The Choice-Select spread widened to \$6 in early September. Fed-cattle prices averaged in the mid-\$60’s this summer, and are expected to rise to the upper \$60’s this fall and into the \$70’s in 2001. **AO**

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Upcoming Reports—USDA’s Economic Research Service

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

October

- 4 *Aquaculture*
- 12 *World Agricultural Supply and Demand Estimates* (8:30 a.m.)
- 13 *Cotton and Wool Outlook* (4 p.m.)**
- 13 *Rice Outlook* (4 p.m.)**
- 16 *Feed Outlook* (9 a.m.)**
- 16 *Wheat Outlook* (9 a.m.)**
- 17 *Fruit and Tree Nuts Yearbook**
- 20 *Agricultural Outlook**
- 23 *Oil Crops Yearbook**
- U.S. Agricultural Trade Update*

*Release of summary, 3 p.m.

**Available electronically only

Food Marketing

Food Price Inflation to Remain Low In 2000 & 2001

Consumers continue to see only modest increases in food prices. The Consumer Price Index (CPI) for all food is forecast to increase 2.3 percent in 2000 and 2-2.5 percent in 2001. This follows increases of 2.2 percent in 1998 and 2.1 percent in 1999. With 8 months of CPI data already collected in 2000, the annual average food CPI is 2.1 percent above the first 8 months of 1999. The inflation rate for the all-items CPI is forecast to be 3.3 percent in 2000, after increasing 2.2 percent in 1999.

Higher energy prices have not yet translated into higher food prices in 2000. This is largely due to the fact that transportation and energy costs are fairly small components of the total food marketing bill, which is 80 cents for every dollar spent by consumers on food. Transportation costs are 4 cents and energy costs are 3.5 cents of the marketing bill. However, if higher energy costs persist for the remainder of the year and the inflation rate remains over 3 percent, the forecast increase of 2.3 percent for all food could inch up another 0.2 percentage point.

The at-home component of the food CPI is forecast up 2.2 percent in 2000 and 2-2.5 percent in 2001. The away-from-home component is expected to increase 2.3 percent in 2000 and 2.5-3 percent in 2001. Gains in this component are held down by competition among restaurants, fast-food establishments, and take-home meals offered by supermarkets.

Food price changes are key in determining what proportion of income consumers spend for food. In 1999, 10.4 percent of household disposable income went for food—with 6.2 percent for food at home and 4.2 percent for food away from home—down from 10.5 percent in 1998. This downward trend is expected to continue in 2000 and 2001.

Meats. Total red meat supplies are expected to be 51.3 billion pounds in 2000, slightly above the 1999 level. In 2001, red

meat supplies will be down to an estimated 50.2 billion pounds, with beef supplies expected to fall to 29 billion pounds and pork to increase slightly to 20.6 billion pounds. Poultry producers have benefited from low feed costs, and record poultry supplies (38.8 billion pounds) are expected next year. A booming economy continues to fuel demand for meat products, and overall meat prices are up 5.6 percent in 2000. Large meat supplies will limit the gain to 1-2 percent next year.

Beef and veal. The CPI for beef is expected to increase 1-2 percent in 2001, after increasing a forecast 5.8 percent in 2000. The 2000 increase will be the largest annual increase since 1990, when the beef CPI increased nearly 8 percent. Domestic beef supplies are likely remain large in the fourth quarter of 2000, but will tighten over the next couple of years. The cattle inventory has been declining since 1996. With smaller supplies and higher prices,

consumption is expected to decline to 66 pounds per capita in 2001.

Pork. Following two consecutive record years, pork production is expected to fall to 18.9 billion pounds in 2000. With pork production down about 3 percent, retail pork prices are forecast up about 7.1 percent in 2000. Hog producer returns are more favorable than in 1998 and 1999, and with continued positive returns in the coming months, pork production is expected to increase to 19.1 billion pounds in 2001, up about 1 percent in 2001. Retail pork prices are expected to increase 1-2 percent.

Poultry. The CPI for poultry is forecast up 1.3 percent in 2000, with another small increase of up to 1 percent expected in 2001. Broiler meat production is expected to increase 5 percent to 32 billion pounds in 2001, and turkey production is forecast up 1 percent. Large supplies of red meat have been an important factor in overall meat prices in 2000, as broiler production increases slowed down in the second half of 2000. Also, exports in the fourth quarter are expected to be lower than a year ago.

Changes in Food Price Indicators, 1999 through 2001

	Relative weights*	1999	2000	Forecast 2001
	Percent	Percent change		
All items		2.2	3.3	2.9
All food	100.0	2.1	2.3	2 to 2.5
Food away from home	37.2	2.5	2.3	2.5 to 3
Food at home	62.8	1.9	2.2	2 to 2.5
Meats	10.8	0.5	5.6	1 to 2
Beef and veal	4.8	2.0	5.8	1 to 2
Pork	3.8	-1.8	7.1	1 to 2
Other meats	2.2	1.0	2.2	2 to 3
Poultry	3.2	0.5	1.3	0 to 1
Fish and seafood	2.2	2.0	3.0	2 to 3
Eggs	0.8	-5.4	-0.3	0 to 1
Dairy products	6.7	5.8	0.9	1 to 2
Fats and oils	1.9	1.0	-0.2	2 to 3
Fruits and vegetables	9.0	2.5	0.1	2 to 3
Fresh fruits and vegetables	6.9	2.8	-0.1	2 to 3
Fresh fruits	3.5	8.0	-3.7	2 to 3
Fresh vegetables	3.4	-3.0	4.4	2 to 3
Processed fruits and vegetables	2.1	2.1	1.1	2 to 3
Sugar and sweets	2.4	1.4	1.6	1.5 to 2.5
Cereal and bakery products	10.0	2.2	2.0	2 to 3
Nonalcoholic beverages	7.0	1.0	2.7	2 to 3
Other foods	8.5	2.1	2.0	2 to 3

*Bureau of Labor Statistics estimated weights as share of all food, December 1999.

Sources: Historical data, Bureau of Labor Statistics; forecasts, Economic Research Service.

Economic Research Service, USDA

Briefs

Fish and seafood. The CPI for fish and seafood is forecast up 3 percent in 2000, with an expected 2-3 percent gain in 2001. A strong domestic economy is boosting sales in the restaurant and food-service sectors in 2000. Higher away-from-home sales are especially beneficial to seafood demand, as a growing share of total seafood sales is made in this sector. More than 50 percent of the fish and seafood consumed in the U.S. is imported, with another 20-25 percent from U.S. farm-raised production.

Eggs. The CPI for eggs is forecast to fall 0.3 percent in 2000, but rise as much as 1 percent in 2001. Egg production is forecast to increase more than 2 percent in 2000, lowering both wholesale and retail egg prices. Growth in table egg production is expected to slow to 1 percent in 2001. Higher production levels and slower growth in exports have led to lower retail prices the past 4 years. Per capita consumption is expected to reach 260 eggs in 2000 and 2001, up from 256 eggs per person in 1999.

Dairy products. Strength of the general economy and higher consumer incomes (a 5.6-percent increase in 1999) continues to push demand for dairy products, but growth in milk production (3-percent projected rise) is limiting gains in retail prices for milk and dairy products in 2000. The CPI for dairy products is expected to increase 0.9 percent in 2000 and 1-2 percent in 2001. Milk production is expected to be up less than 1 percent in 2001, although milk cow numbers are expected to decline slightly. Strong consumer demand for dairy items, especially gourmet ice cream, cheese, and butterfat products, is expected to continue into 2001. Other key demand factors include increased spending for away-from-home eating and the willingness to pay for convenience and other forms of commercial food preparation.

Fresh fruits. A December 1998 freeze in California resulted in higher retail prices in 1999 for navel oranges (up 49 percent) and Valencia oranges (up 44 percent), and contributed to an 8-percent gain in the fresh fruit index for the year. The 1999/2000 crop rebounded in California, and the CPI for fresh fruits is forecast down 3.7 percent in 2000. For the first 8

months of 2000, retail prices are lower for navel oranges (down 32 percent), Valencia oranges (down 30 percent), grapes (down 8 percent), peaches (down 11 percent), and strawberries (down 8 percent). With continued U.S. consumer demand for fresh fruits and normal production levels for major fruits in the U.S., the fresh fruit CPI is forecast to increase 2-3 percent in 2001.

Fresh vegetables. Fresh-market production will likely decline about 1 percent in 2000 as growers have reduced acreage in response to financial losses caused by lower grower prices the year before. California, accounting for 50 percent of this year's summer-season area, reduced acreage 3 percent. New York, the second leading summer-season producer, with 11 percent of acreage, expects to harvest 10 percent less than a year ago due to an unusually cool, wet spring. Prospective U.S. summer area was the same or lower for many vegetables, except for carrots (up 11 percent), cabbage (up 6 percent), cauliflower (up 5 percent), honeydew melons (up 3 percent), and tomatoes (up 2 percent). But market volume may not be down much from a year earlier due to higher yields expected in California and the likelihood of improved yields in the eastern U.S. With production down slightly and strong demand for fresh vegetables, the fresh vegetable index is forecast up 4.4 percent in 2000. Assuming normal production levels for major fresh vegetables in 2001, the fresh vegetable CPI is forecast to increase 2-3 percent in 2001.

Processed fruits and vegetables.

Adequate supplies of most fruits and vegetables for processing is expected to limit the CPI increase for processed fruits and vegetables to 1.1 percent in 2000 and 2-3 percent in 2001.

Sugar and sweets. Domestic sugar production for 1999/2000 is estimated at a record 9.1 million tons, more than 700,000 tons larger than production the previous fiscal year. Low prices for soybeans, corn, wheat, barley, and rice have reduced producer returns for these alternative crops, leading to increases in acreage for sugar crops. Large supplies are also expected in 2000/01. Relatively low inflation, along with increased production and lower retail prices for select-

ed sugar-related food items is expected to limit the sugar and sweets index increase to only 1.6 percent in 2000 and 1.5-2.5 percent in 2001.

Demand for sugar and sugar-related products continues to increase. Per capita consumption of caloric sweeteners is expected to increase almost 20 pounds per person from 1990 to 2000, due in part to a dramatic drop in inflation-adjusted retail prices, from 33 cents per pound to 26 cents. During this 10-year period, the retail price for white sugar stayed almost constant, averaging about 43 cents per pound.

Cereal and bakery products account for a large portion of the at-home food CPI—almost 16 percent. With grain prices lower this year and inflation-related processing costs modest, the CPI for cereals and bakery products is forecast to increase 2 percent in 2000. Most of the costs to produce cereal and bread products—more than 90 percent in most cases—are for processing and marketing, with grain and other farm ingredients accounting for a fraction of the total cost. With competition among producers and consumer demand for bakery products expected to remain fairly strong, the CPI is forecast up 2-3 percent in 2001.

Nonalcoholic beverages. The CPI for nonalcoholic beverages is forecast up 2.7 percent in 2000 and is forecast to increase another 2-3 percent in 2001. Coffee and carbonated beverages are the two major components, accounting for 28 and 38 percent of the nonalcoholic beverages index. Retail prices have been higher in 2000 for ground roast coffee (up 3 percent) and soft drinks (up 4 percent). World coffee production in 2000/01 is a forecast record 108.7 million 60-kilogram bags, nearly 2 percent above last year's level and 570,000 bags above the previous record coffee crop in 1998/99. Up to 80 percent of U.S. imports are arabica beans along with 15-20 percent robustas, which go mainly to soluble (instant) coffee or are blended with arabicas. Recent near-record production in Brazil, the largest producer of arabica beans, should lead to larger U.S. stocks and continued moderate consumer prices. **AO**

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Commodity Spotlight



Sue Baker

Corn Production & Use To Hit Record Highs

Record U.S. corn production is in the forecast for 2000, with higher acreage planted and record yields. Anticipated record-high domestic demand and bright prospects for exports will limit the stocks gain. Nevertheless, ending stocks are expected to be the highest since 1987/88, and market prices will remain weak.

Ideal spring weather encouraged U.S. farmers not only to plant corn earlier than usual, but also to seed more acres than they had anticipated in March. (In much of the corn-producing area, though, soils were dryer than usual early this spring, which had caused concern.) By mid-May, farmers had planted 91 percent of the crop, compared with 70 percent last year and a 62-percent average over the previous 5 years. The 79.6 million acres estimated in the June 2000 *Acreage* report was up 1.7 million acres from the March *Prospective Plantings* report and 2.1 million acres above 1999.

Favorable weather conditions prevailed through the summer in most major producing areas, and average yield in 2000 is forecast at a record 141.8 bushels per acre, up from 133.8 bushels last year and from 1994's previous record of 138.6

bushels. Total corn production in 2000 is forecast at 10.4 billion bushels, up from 9.4 billion in 1999. With more stocks on hand at the beginning of the period, total supply in 2000/01 is expected to exceed 1999/2000 by 8 percent.

Demand Remains Strong

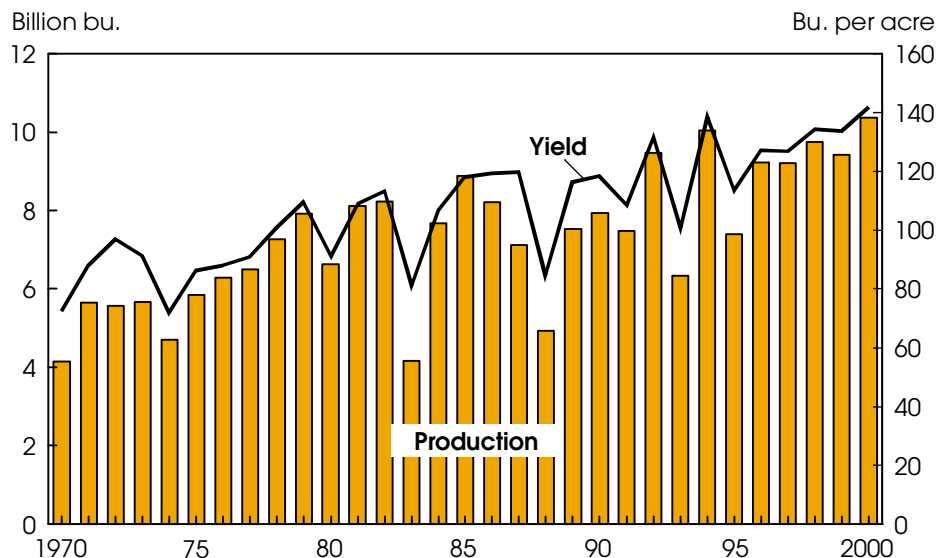
For 2000/01, USDA forecasts an all-time high of 7.7 billion bushels for domestic use of corn as livestock feed and for food, seed, and industrial use—up 2 percent from that expected in 1999/2000 (the season begins September 1).

Grain-consuming animal units in 2000/01 are projected to increase 1 percent from the 89 million units in 1999/2000. Dairy, poultry, and hog numbers are expected to rise slightly from a year earlier, but cattle on feed may decline in 2001.

Corn use by the poultry and hog industries should remain strong in 2000/01, given their prospective increases in production. Compared with projections for this year, production in 2001 is expected to rise 4 percent for broilers, 1 percent for turkeys, and 1 percent for eggs. Pork production is projected up 1 percent.

Milk producers, encouraged by weak corn prices, are expected to maintain heavy grain feeding and keep demand for corn strong, even though milk prices may be weaker in 2001. Milk production is projected at 167.5 billion pounds in 2001, down slightly from 2000.

U.S. Corn Yield and Production Trend Higher



2000 forecast.

Economic Research Service, USDA

Commodity Spotlight

Projected beef production for 2001 is 25.5 billion pounds, down 5 percent from 2000. The expected decrease suggests that need for feed by beef feedlots may weaken in 2001.

With long-term demand based on a growing U.S. population, corn demand for food, seed, and industrial uses will remain strong, up 3 percent from 1999/2000 to 2 billion bushels. In foods, corn products are used mainly in corn syrup and other sweeteners, cornstarch, corn chips, and cereals. Industrially, corn is used to produce ethanol, starch for home-building products, and alcohol for external use.

In 1999/2000, total use of corn in sweeteners is projected up 2 percent from 1998/99. High-fructose corn syrup (HFCS)—used principally in soft drinks—is expected to rise 2 percent in 1999/2000 (up from 530.5 million bushels in 1998/99) and another 2 percent in 2000/01. Weaker sugar prices and a decline in HFCS exports may have limited this year's increase. Net corn sweetener exports in corn equivalents for September 1999–June 2000 were down 1 percent from the same period a year earlier, partly because of ongoing negotiations with Mexico over U.S. HFCS shipments—recently subject to increased tariffs—and U.S. sugar imports.

Corn used to make glucose and dextrose in 1999/2000 is projected up 3 percent from 219 million bushels in 1998/99 and is expected to rise 2 percent in 2000/01. Glucose and dextrose use has bounced back from a decline in 1998/99, as these sweeteners have found their way into more foods.

Ethanol use, contrary to normal seasonal declines, remained strong in the summer of 2000 because of the high price of gasoline and of methyl tertiary butyl ether (MTBE), another oxygenate used in motor vehicle fuels to make them burn more cleanly. Consequently, corn used to make ethanol is expected to rise 8 percent in 1999/2000 (up from 525 million bushels in 1998/99), and 5 percent in 2000/01 (up from an expected 570 million bushels in 1999/2000). MTBE competes with ethanol/alcohol use in reformulated gasoline, as both alcohol and MTBE enhance octane. In fact, processing plants are being built or planned in anticipation of a substantially greater demand for ethanol.

Corn used to make alcohol for beverages and for manufacturing purposes was up 2 percent in 1999/2000 from the 127 million bushels in 1998/99 and is predicted to rise slightly in 2000/01. Low corn prices have kept the cost of producing alcohol

(used in rubbing alcohol and aftershave, for example) competitive with alternatives, and population growth should increase demand. Corn for cereals and other food products is expected to rise 3 percent in 2000/01, up from 185 million bushels in 1999/2000.

Corn used in producing starch in 1999/2000 rose 4 percent (up from 240 million bushels in 1998/99). The use of starch to make products such as paper and wallboard generally increases when the economy is strong, as it is now. Even though home construction is slowing in response to higher interest rates, corn use for starch products is projected to rise 2 percent in 2000/01.

Loan Deficiency Payments To Offset Corn Price Drop

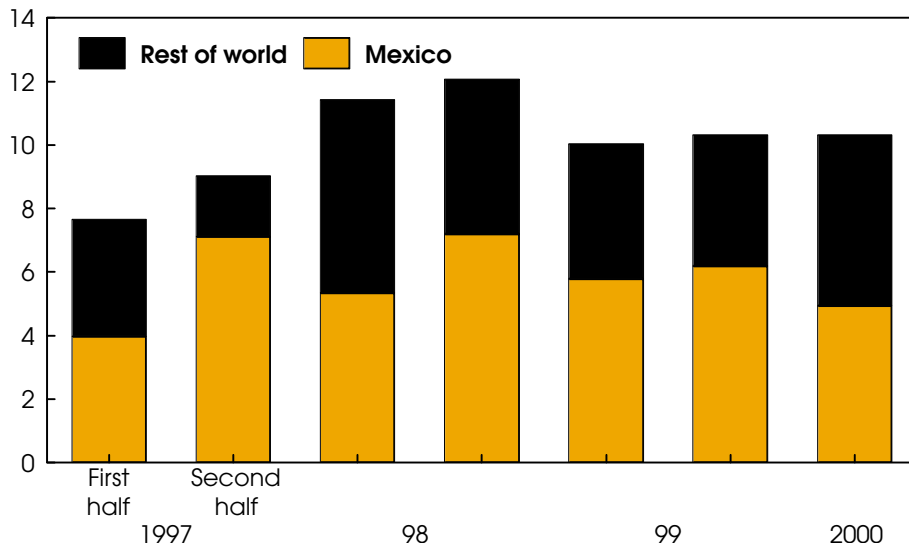
Even though corn use should reach record highs in 2000/01, corn prices are likely to be weak as a result of large U.S. stocks. Farmers can expect to sell their corn for \$1.50 to \$1.90 per bushel, compared with an expected \$1.80 in 1999/2000. This contrasts with an average of \$2.52 per bushel in the previous 5 years. It was for just such a contingency that assistance programs were written into the 1996 Farm Act. Key provisions are nonrecourse marketing assistance loans and loan deficiency payments (LDP's), both available to producers who entered into production flexibility contracts with USDA.

Nonrecourse marketing assistance loans provide interim financing to eligible producers of feed grains and other commodities covered by the program and provide income support when prices are low. Corn used as collateral may be forfeited to USDA's Commodity Credit Corporation at maturity, or loans may be repaid at the lesser of the loan rate plus accrued interest or the local, posted county price. As of September 20, 2000, feed grain producers had outstanding loans on 20 million bushels of 2000-crop corn as collateral and 244 million bushels on 1999-crop. The value of the outstanding loans totaled \$40 million for 2000, and \$441 million for 1999.

If local prices (as calculated by USDA's Farm Service Agency) are below the county loan rate, eligible producers may

U.S. Corn Sweetener Exports to Mexico Have Declined

Million bu. equivalent



U.S. net exports of corn sweeteners, converted to equivalent bushels of corn.

Economic Research Service, USDA

Commodity Spotlight

opt for an LDP in lieu of a loan. As of September 20, 2000, eligible producers had collected \$94 million in LDP's for 2000-crop corn (including silage), covering 217 million bushels or about 2 percent of the crop; the average payment rate was 44 cents per bushel. For the 1999 crop, eligible producers collected nearly \$2 billion in LDP's, covering about 77 percent of the crop; the average payment rate was 27 cents per bushel.

U.S. Corn Exports To Rise Sharply in 2000/01

U.S. corn exports are forecast up 250 million bushels in 2000/01, to 2.175 billion. Expanding world corn trade (to the highest level in over a decade), combined with low U.S. corn prices and reduced competition from China and Eastern Europe, is expected to result in a sharp increase in U.S. market share. Increases in corn exports from the two other major exporters, Argentina and South Africa, are expected to be relatively small.

Reduced export competition for the U.S. stems partially from drought damage in the critical growing areas of northeastern China and from a prolonged period of dry conditions and very high temperatures in Eastern Europe, which reduced that area's corn production by 36 percent. The main corn growing areas of Romania, Hungary, Bulgaria, and the former Yugoslavia were particularly hard hit. The amount of planted area in China also declined, the result of reduced price supports and strong prices for soybeans. China's corn production is forecast down 10 percent from a year ago.

The jump in the U.S. corn crop is largely offset by sharp drops in China and Eastern Europe. Nevertheless, world corn production in 2000/01 is forecast to reach a record 607 million tons because of gains in the European Union (EU) and Brazil. Generally favorable growing conditions are expected to generate record yields in the EU, while strong prices expand area in Brazil.

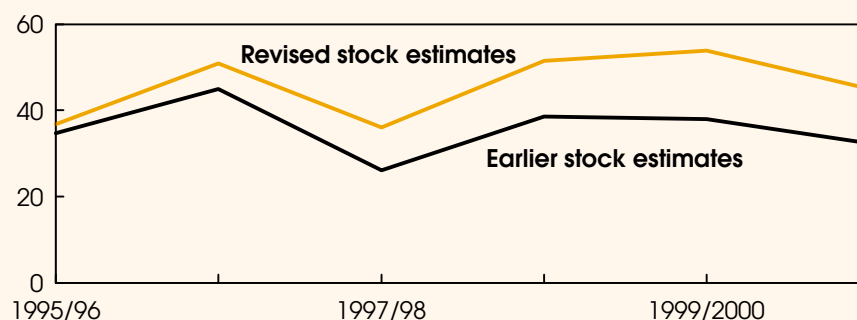
In 2000/01, world corn consumption is projected at a record 607 million tons, growing at the same rate as production (1 percent) but well under the 3 percent seen in 1999/2000.

New Estimates for China's Corn Stocks & Use

In August, USDA revised China's supply-and-use balances for corn, significantly lifting estimates of the country's ending stocks for the period 1995/96 through 2000/01, based on statements by various Chinese officials. (China does not publish official grain stocks data.) In addition, price levels in China indicate stocks are not as tight as USDA data previously indicated. Historical production and trade data are official Chinese data and were not revised, but USDA's estimates of use have been reduced. Revised estimates reflect strong but slower growth in China's corn feed use from 1995/96 to 2000/01, averaging 3.9 percent per year.

China's Ending Stocks of Corn Revised Upward

Million metric tons



1999/2000 estimated, 2000/01 projected. Historical revision made in USDA's August 11, 2000 *World Agricultural Supply and Demand Estimates*.

Economic Research Service, USDA

Where national economies are sluggish and where country-specific adverse conditions exist, declines in corn use are predicted. In Japan, the world's largest importer of corn, a decline in corn use is expected to continue as meat imports rise, and use is also expected to drop in South Korea, where disease problems will limit hog production. Stumbling economies in Sub-Saharan Africa and the former Soviet Union are expected to keep growth in corn use stagnant. In Eastern Europe, predictions are for foreign exchange constraints and sharply reduced grain production to cut short a nascent rebound in the live-stock sector, reducing corn consumption.

In Latin America, after 4 years of stagnation, corn consumption will resume its normal upward trend as the economy improves. Economic growth is also expected to boost corn feed use in South Asia, Southeast Asia, and China. EU corn consumption is expected to expand—exceeding 40 million tons for the first time in 20 years—despite large supplies of feed wheat. Drought in North Africa and parts of the Middle East is anticipated

to combine with high barley prices to push corn imports and consumption up in these regions. Now that several years have passed since Taiwan's swine herd was decimated by foot-and-mouth disease (see Special Article, page 20), Taiwan's corn consumption has risen in 1999/2000 and is expected to continue to grow slowly in 2000/01.

World corn ending stocks are expected to remain nearly unchanged in 2000/01, at 128 million tons—the largest volume since the 1985–87 period when U.S. government stocks were huge. More of the global corn stocks in 2000/01 will be concentrated in the U.S., as foreign corn stocks drop by 12 million tons (to 71 million), mostly the result of reduced stocks in China, compounded by lower stocks in Eastern Europe. At projected levels, large U.S. stocks will continue to put downward pressure on U.S. corn prices in 2000/01. **AO**

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World Agriculture & Trade



U.S. Ag Exports to Edge Higher In Fiscal 2001

In 2001, for the second year in a row, the value of U.S. agricultural exports will climb, according to USDA projections. Exports should increase 2 percent over revised estimates for fiscal 2000, to \$51.5 billion, marking a continuing upswing since the Asian financial setbacks of 1997–99. A rise in volume (quantity) accounts for much of this gain, as large global supplies of many commodities are expected to keep prices relatively low, especially for bulk commodities (with the exception of cotton).

Continued strong world economic growth and resultant higher global demand for U.S. agricultural products should help boost export volume overall, with most of this gain in corn and wheat shipments. USDA anticipates the largest export volume of bulk commodities since fiscal 1995—121.9 million tons. A predicted 4.5-percent gain in the dollar value of bulk exports in fiscal 2001 over 2000—to \$18.5 billion—mainly reflects the anticipated increase of 9.5 million tons in the volume of bulk commodities exported.

Exports of high-value products (HVP's)—that is, all agricultural exports other than bulk commodities—are projected up just 0.6 percent to \$33 billion. Horticultural products and soybean oil are projected up,

offsetting a reduction in livestock, poultry, and dairy products. The share of HVP's in total U.S. agricultural exports is likely to drop 1 percent from 2000, to 64 percent.

Demand for U.S. agricultural exports is expected to increase, reflecting favorable economic conditions worldwide.

Expansion of gross domestic product (GDP) in the European Union (EU) will likely slow but should remain healthy in 2001, at above 3 percent. The rate of GDP growth in Japan, a country still experiencing poor financial-sector performance, is projected to reach 2 percent in 2001, a gain from 2000. Even though the rate of GDP growth in the U.S. will likely slow from its 2000 pace, it should still register at the relatively high rate of 3.5 percent.

The dollar is expected to appreciate against currencies of most developing countries in 2001, including the Mexican peso. The dollar is expected to depreciate

against the euro, the yen, and the Canadian dollar, which would make U.S. exports more competitive in developed country markets. An overall trade-weighted decline in the dollar exchange rate, together with continued low domestic commodity prices, should boost U.S. trade competitiveness in 2001.

Fiscal 2001 U.S. agricultural imports are expected to rise to \$39.5 billion. Although more modest in magnitude than in recent years, this is the fourteenth consecutive projected import gain. Reining in import increases will be slower U.S. economic growth in fiscal 2001 and a buildup of domestic supplies. Most of the gain in imports is projected to occur in horticultural products—fruits, vegetables, and wine and malt beverages—which should see higher import volume as well as higher import prices. A small gain in animal product imports is also forecast. These commodities tend to respond to U.S. economic growth which, while slowing, will still be strong in 2001. With larger growth in exports than in imports, the U.S. agricultural trade surplus will advance 4 percent to \$12 billion—a fairly low trade surplus for the U.S. and well below the fiscal 1996 record.

Gains in Volume Push Up Bulk Value

Bulk commodities will account for 36 percent of total U.S. agricultural exports, up from 35 percent in 2000. Export volume of corn, wheat, soybeans, and cotton is projected to rise, pushing up the export value of each commodity except soybeans (soybean prices are forecast lower).

Corn will account for two-thirds of the projected gain in export volume for 2001. But exports of other coarse grains, particularly sorghum, are expected to decline, holding down overall volume growth in coarse grain exports. Corn exports will be buoyed by reduced export competition

This is the initial forecast of agricultural exports for 2001 (released August 30, 2000). *Bulk commodities* include wheat, rice, feed grains, soybeans, cotton, and tobacco. *High-value products* (HVP's) comprise total exports minus bulk commodities. HVP's include semiprocessed and processed grains and oilseeds (e.g., soybean meal and oil), animals and animal products, horticultural products, and sugar and tropical products. Appendix table 27 presents a breakout of U.S. agricultural exports and imports by major commodity group—both volume and value—for 1999–2001.

World Agriculture & Trade

from China and Eastern Europe and by stronger global demand. China's 2001 corn production is forecast down 10 percent, and its prospective exports have been cut by more than half.

Much of the increase in wheat export value will also result from gains in volume, as U.S. wheat stocks are expected to remain high and thus to depress prices. Export volume is forecast up as drought reduces output in North Africa and as production falls in Iran and China. Also boosting U.S. wheat exports is an expected decline in export competition from Eastern Europe.

U.S. rice exports are projected slightly below both the volume and value of 2000. Strong export competition will limit U.S. export volume, while large exportable global supplies will keep prices low and hold down export value. All the major Asian exporters—China, Thailand, Vietnam, India, and Pakistan—are expected to increase exports in 2001. An expected smaller, but still large, 2000/01 U.S. rice crop will also tend to lower U.S. exports.

China's rising demand for soybean imports will play a major role in pushing up fiscal 2001 U.S. soybean exports. However, rising global soybean supplies from the record production projected for the U.S., Argentina, and Brazil will weaken prices, and U.S. soybean export value is expected to fall. Both Brazil and Argentina, however, continue to export mainly soybean meal rather than soybeans, so export competition will not rise substantially.

Projections are for U.S. cotton exports in 2001 to continue recovering from the dismal 1998/99 season. Higher U.S. production should contribute to gains in both export volume and export value. Strong global demand for cotton will be a major factor in 2001, as world economies continue to recover. Imports are expected to rise in several major U.S. cotton markets

U.S. Agricultural Exports to Post Second Consecutive Gain

	1996	1997	1998	1999	2000	2001
\$ billion						
Grain and feeds	21.6	16.5	14.1	14.4	13.6	13.6
Oilseeds and products	9.7	11.5	11.1	8.7	8.7	8.7
Livestock products	8.1	7.7	7.6	7.2	8.4	8.4
Poultry and products	2.7	2.9	2.7	2.1	2.3	2.2
Dairy products	0.7	0.8	0.9	0.9	1.0	0.9
Tobacco, unmanufactured	1.4	1.6	1.4	1.4	1.3	1.3
Cotton and linters	3.0	2.7	2.5	1.3	1.8	2.6
Seeds	0.7	0.8	0.8	0.8	0.8	0.9
Horticultural products	10.0	10.6	10.3	10.3	10.4	10.7
Sugar and tropical	1.9	2.1	2.1	2.0	2.2	2.2
Total	59.8	57.3	53.6	49.1	50.5	51.5

Fiscal years. 2000 forecast; 2001 projected. Based on commodity forecasts in August 11, 2000 *World Agricultural Supply and Demand Estimates*. Total includes miscellaneous products.

Economic Research Service, USDA

whose economic growth prospects are particularly attractive—China, Mexico, Southeast Asia, Turkey, and the EU. Additionally, a decline in export competition is anticipated, as reduced exports are forecast for China, Pakistan, and Central Asia.

Slower Growth in HVP Exports Projected

USDA forecasts total U.S. exports of high-value products in 2001 at \$33 billion, compared with \$32.8 billion in 2000 (aggregate HVP volume is not measured). Exports of U.S. horticultural products should be up 3 percent, just offsetting a 2-percent decline in exports of livestock, poultry, and dairy products. Exports of soybean oil are also expected to rise.

Exports of fruits and vegetables will account for most of the increase in U.S. horticultural shipments. Factors expected to contribute to a 3-percent rise in U.S. fruit exports are the opening of China's citrus market; continued strong economic expansion in major importing countries of Canada, Mexico, and Asia; and continued large U.S. orange supplies. Canada, Mexico, and Asia are major markets for U.S. vegetable exports as well, and U.S. vegetable exports are predicted up 3 per-

cent. No change is forecast for exports of tree nuts; even with lower output predicted, world tree nut supplies remain sizable.

The record U.S. soybean crop and continued gains in demand for soybean meal will be partly offset by greater export competition from Brazil and Argentina in the soybean meal market. U.S. soybean meal exports are projected up 5 percent in volume to 6.7 million tons. Export value should hold at its 2000 level, as larger global supplies reduce prices. Slowing growth of Malaysian palm oil production is expected to reduce competition from other edible oils and increase U.S. soybean oil exports by one-third, to 800,000 tons and \$400 million.

Continued strength in beef and pork prices should raise meat export value in 2001, while tighter U.S. supplies should lower export volume about 5 percent. U.S. poultry will face increased competition in Asian markets, and export value and volume are forecast to slip slightly in 2001. Export value of U.S. dairy products is expected to fall because of a decrease in products moving under Dairy Export Incentive Program contracts. **AO**

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Policy



U.S. Farm Program Benefits: Links to Planting Decisions & Agricultural Markets

Direct government payments to the U.S. farm sector topped \$20 billion in 1999 and are forecast to exceed \$20 billion again in 2000. Nearly 40 percent of these direct payments have been disbursed as emergency assistance under three supplemental legislative packages enacted since October 1998, partly in response to low agricultural commodity prices. The supplemental assistance augmented direct payments from existing farm programs such as production flexibility contract payments and loan deficiency payments, and payments from conservation programs such as the Conservation Reserve Program. Besides direct payments, support to the sector comes from crop insurance premium subsidies, marketing loan gains, and price supports for selected commodities (dairy, peanuts, sugar, and tobacco).

Direct payments and indirect benefits have boosted farm income during the last 2 years. But analyses of links between U.S. farm programs and agricultural production indicates that effects on resource allocation and agricultural markets vary across programs. Analyses by USDA's Economic Research Service (ERS) of four

farm programs—production flexibility contracts, crop insurance, marketing loans, and disaster assistance—focus on how agricultural markets can be affected through program-related economic incentives that may alter production decisions. Subsequent impacts on prices, domestic use, and exports largely reflect market adjustments to production changes.

Ag Programs Affect Land Use & Crop Mix

Some farm programs primarily influence aggregate land use, with less effect on the mix of crops planted. For example, transfers that are not commodity-specific can increase the overall level of agricultural production by increasing the wealth (financial well-being) of farmers, thereby expanding agricultural investment and boosting use of land and other inputs. Greater wealth does not affect the relative returns from producing alternative crops, so in general, allocation of the additional acreage among competing uses is still determined by market signals. However, potential financial risk may be perceived differently by people who have different levels of wealth, and changes in farmers'

wealth levels may affect their response to risk.

Programs more closely linked to production of specific crops may not only affect total land use but also distort the mix of crops planted. Program benefits that are directly linked (coupled) to production of specific crops increase expected returns to those commodities. Therefore, production decisions for those commodities are based on expected returns from both the marketplace and government payments.

Government program payments for one commodity may also influence decisions to produce others (cross-commodity effects), since relative net returns change. Farmers with land constraints would likely respond to a coupled payment by altering the mix of crops planted, switching toward program crops or to crops with higher benefits. Farmers who could expand land use would likely increase acres planted and also shift the mix of crops toward those with relatively high benefits.

In addition, changes in agricultural production can arise from programs that influence expectations. For example, programs that reduce risk can lead to production impacts by raising the lowest level of expected returns, thereby reducing financial risk. Expectations about the nature of future programs may also affect current production decisions. For example, if farmers expect future payments to be based on current plantings, they may be induced to increase plantings of those crops.

Four Farm Programs That Factor into Planting Decisions

Production flexibility contracts—authorized under the 1996 Farm Act—fundamentally changed agricultural income support programs by replacing crop deficiency payments (related to commodity-specific plantings and farm prices) with production flexibility contract (PFC) payments (based on enrolled acreage and generally not related to current production and prices). Land eligible for PFC payments includes acreage enrolled in annual farm programs for any year from 1991 through 1995, and total PFC outlays are

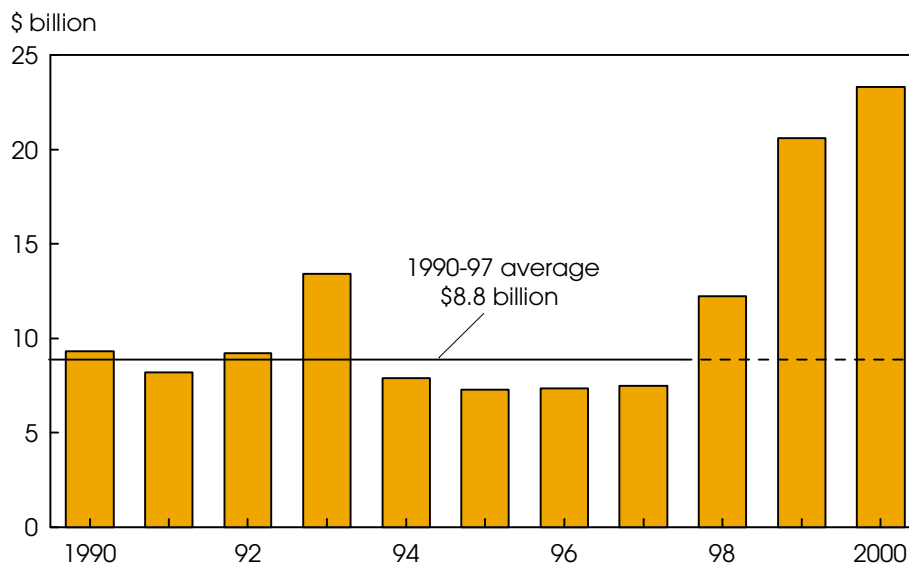
capped at slightly over \$36 billion for 7 years, 1996-2002. To be eligible for payments, farmers entered into production flexibility contracts that require them to comply with conservation, wetland, and planting flexibility provisions, as well as to keep enrolled land in agricultural uses or idle.

Because PFC payments do not depend on current production or prices, it can be argued that they have no influence on farmers' production decisions. However, since PFC payments raise farmers' income and financial well-being, they can potentially affect agricultural investment and thereby enhance production. Lenders are more willing to make loans to farmers with higher guaranteed incomes and lower risk of default. Greater loan availability facilitates additional agricultural production. Increased income from PFC payments also allows farmers, particularly those constrained by debt or limited liquidity, to more easily invest in their farm operation. The resulting increased investment in farming operations contributes to higher agricultural production in the long run.

The increase in wealth resulting from PFC payments also can change farmers' views of the financial costs associated with risk, and the change in risk attitude may affect the mix of crops produced. The guaranteed income stream from PFC payments may make farmers more willing to undertake production of riskier crops that provide the possibility of higher expected returns.

Initially, the effect of a decoupled payment is the same as a lump-sum payment—i.e., revenue rises, but output is unaffected because per-unit net returns do not change. The increase in revenue raises farmers' consumption, investment, and savings, with the largest share typically going to consumption. Thus, the potential for PFC payments to influence production decisions depends largely on savings and investment decisions and on the strength of the wealth effect. Acreage impacts are relatively small across a range of assumptions for these factors. Even if it is assumed that savings and investment are increased by as much as one-fourth of PFC payments, and applying a range of acreage responses to changes in producers' wealth, estimates of the possible

Direct Government Payments to Farmers Have Tripled Since 1997



Calendar-year data. 2000 forecast. Major categories include deficiency payments, production flexibility contract payments, emergency assistance, loan deficiency payments, and CRP and other conservation payments. For related WTO notifications since 1995 (crop-year basis), some of these payments are treated as green box, some as blue box (in 1995 only), and others as amber box (AO December 1998).

Economic Research Service, USDA

increases in aggregate plantings range from 225,000 acres to 725,000, a small portion of total cropland (less than 0.3 percent).

Farmers allocate the increased acreage across crops by expected market returns. However, lower prices that result from the increased production would lead to some moderation of production effects and other market impacts.

PFC payments may also affect crop production decisions by requiring land to remain in agricultural uses. While this requirement permits cropland to be idled, the PFC payments may be sufficient incentive to prevent some land from being converted to permanent nonagricultural uses. Once the decision is made not to convert, the farmer then may decide to produce on that land if expected revenue exceeds production costs. Even if the land is idled, it is available to return to agricultural production if economic conditions warrant.

Crop and revenue insurance play a prominent role in U.S. agricultural policy as part of the farm safety net. The 1994

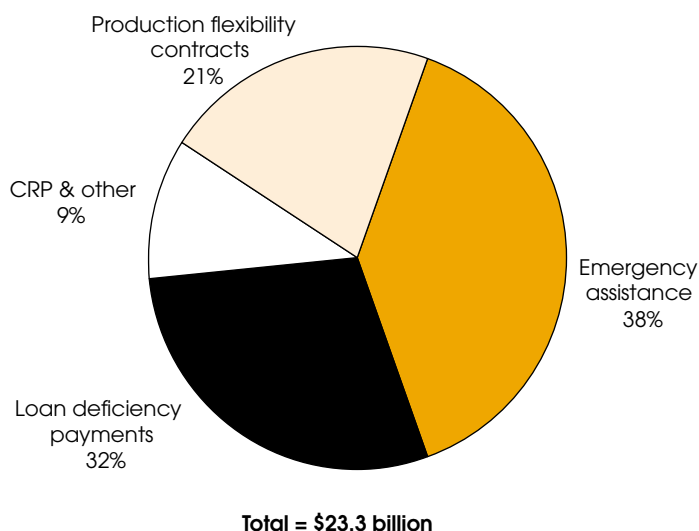
Crop Insurance Reform Act provided low-cost (government-subsidized) catastrophic coverage for crop producers and instituted restrictive legislative procedures for enacting disaster assistance. Crop insurance coverage and premium subsidy levels have increased dramatically in the intervening years. The Agricultural Risk Protection Act of 2000 recently expanded crop insurance funding by more than 80 percent.

Insurance changes the distribution of expected revenues by reducing financial risk associated with crop production variability. Government crop insurance subsidies are likely to alter producer behavior because they lower the cost of purchasing coverage. The cost reduction represents a benefit to producers that raises expected returns per acre and provides an incentive to expand area in crop production.

Crop insurance subsidies are calculated as a percentage of the total premium, and premiums vary across crops and farms to reflect different risks of loss associated with each crop and each insurable acre. As a result, the premium subsidy is higher for coverage of production of riskier crops and for production on riskier land. This

Policy

Emergency Aid to Account for Largest Share of Government Payments to Farm Sector in 2000



Forecast.
Economic Research Service, USDA

structure for premium subsidies favors production on acreage with higher yield variability and may encourage production on land that might not otherwise be planted. Crop insurance subsidies also tend to increase plantings in regions with riskier production environments—e.g., prone to extreme weather conditions such as drought or flooding.

ERS recently conducted a preliminary assessment of the impact of Federal crop insurance subsidies on crop production. To estimate changes in production attributable to crop insurance subsidies, regional, crop-specific, premium subsidies were added to expected net returns and incorporated into a regional supply response model. The model allows intra- and inter-regional acreage shifts and cross-commodity price effects in a simulation of multiyear impacts on acreage and production.

The analysis suggests that when the new crop insurance premium subsidies are in place in 2001, the combined effect of all insurance premium subsidies will add approximately 900,000 acres (0.4 percent) annually to aggregate plantings of eight major field crops. Wheat and cotton account for most of the increase, together

accounting for about two-thirds of the increased area. Cotton acreage shows the largest relative increase (almost 2 percent). Premium subsidies raise planted acreage relatively more in the Southern Plains than in other regions.

Marketing loans are the current version of commodity loan programs that have been among the primary domestic support programs in the U.S. since the 1930's. Over the past 15 years, loan programs for major field crops have moved away from supporting prices and have switched to marketing loans that provide income support but do not support prices. While costs of marketing loan programs through 1997 were generally quite small, program costs have jumped significantly in the last few years because of low commodity prices. Total marketing loan benefits rose from less than \$200 million for 1997 crops to more than \$3.8 billion for 1998 and over \$7 billion for 1999 crops.

Producers can receive marketing loan benefits either by participating in the marketing assistance loan program (borrowing against a commodity used as collateral) or by opting to receive a loan deficiency payment. By pledging and storing some of their production as collateral for

a loan, farmers can receive a per-unit loan rate for the crop. Loans may be repaid at the loan repayment rate that is based on local, posted county prices for wheat, feed grains, and oilseeds (for rice and upland cotton, at the prevailing world market price). When the loan repayment rate is below the per-unit commodity loan rate, the difference represents a cost to the government and a program benefit (marketing loan gain) to the producer.

Instead of placing the crop under loan, farmers may choose to receive marketing loan benefits through direct loan deficiency payments (LDP's) when loan repayment rates are lower than commodity loan rates. The LDP rate is the amount by which the current loan rate exceeds the posted county price or the prevailing world market price and, thus, is equivalent to the marketing loan gain that could alternatively be obtained for crops under loan.

Assuming that the sales price for the crop is equal to the posted county price, the marketing loan program provides producers with an effective per-unit revenue floor at the loan rate. In practice, however, because of the seasonal movement of crop prices within a year, the marketing loan program has resulted in national average per-unit revenues received by farmers that exceed commodity loan rates (AO December 1999). Farmers take the marketing loan benefit (LDP or marketing loan gain) when prices are seasonally low and then sell the crop later in the year when market prices have risen.

Marketing loan benefits (marketing loan gains and loan deficiency payments) are estimated to have added 4-5 million acres to total U.S. acreage planted to the eight major field crops for 2000. This estimate uses an ERS acreage response model that incorporates current loan rates as well as the higher effective per-unit revenues realized by combining marketing loan benefits with crop-price seasonality.

The magnitude of this estimated acreage impact is specific to the 2000 crop-year situation, with results dependent on the size of expected marketing loan benefits that year. In years of higher prices, impacts of marketing loans on production would be smaller because program bene-

fits would be lower. Conversely, in years of lower prices, impacts would increase.

Within the aggregate increase in plantings estimated for 2000, acreage changes for individual crops reflect relative impacts of marketing loan benefits on net returns among competing crops as well as relative magnitudes of crop-specific acreage responses to those net returns. Wheat acreage gains almost 2 million acres because of its own marketing loan benefits and relatively less competition from other crops. Soybean and cotton acreage are each up about 1 million acres, and corn plantings are up about 500,000 acres.

In each case, the acreage impacts of the crop's own marketing loan benefits are partly offset by acreage effects of marketing loan benefits for other crops, reflecting the competition among crops for plantings. This land-use competition is particularly strong between corn and soybeans, where the mix of plantings is quite responsive to changes in relative prices and relative program benefits.

Disaster assistance programs have had a prominent role in support to U.S. agriculture, addressing, for example, the effects of crop losses from severe weather or pests. Crop insurance reform legislation in 1994 included language intended to eliminate ad hoc disaster assistance, in part because such payments were viewed as partly displacing use of insurance programs. More recently, however, legislation has provided emergency financial assistance to producers for crop losses incurred due to disasters.

Disaster payments are typically dispensed after production decisions have been made, and it can therefore be argued that such assistance does not distort production. On the other hand, if producers have expectations of future assistance based on

past government actions, then the prospect of disaster payments may influence production decisions. With three emergency assistance packages enacted in less than 2 years, farmers may now expect this type of government assistance to be more likely when prices or production are low.

Expectations of disaster assistance when prices or production fall to low levels increase expected producer returns and may lead to higher production than would otherwise occur. Thus, disaster assistance may encourage producers to keep riskier land in production.

The more that disaster aid is viewed as effectively linked to specific production activities, the greater the influence of expected future benefits on production choices. Disaster assistance that addresses crop-specific production problems, for example, can be viewed as similar to crop insurance, affecting planting decisions by reducing risk and likely leading to expanded production of those crops. In contrast, less specific disaster assistance payments would impact aggregate production more generally.

Program Impacts May Overlap

Each of these four U.S. agricultural programs increases U.S. production somewhat by affecting planting decisions in the aggregate and/or in acreage of specific crops. As a consequence, each program exerts some effects on market prices, domestic use, and exports. Production impacts of these programs may overlap somewhat, reflecting the potential for some substitution between the programs, such as expectations of disaster assistance displacing use of crop insurance.

Increased production resulting from these programs will also tend to lower prices,

and price declines, along with planting flexibility provided by the 1996 Farm Act, can cause partly offsetting reductions in production. Nonetheless, production remains higher as a result of these programs, although except for marketing loans, aggregate acreage impacts appear to be small.

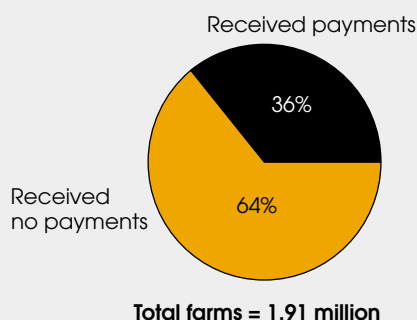
Crop insurance and marketing loans create direct incentives to expand production of specific commodities by increasing expected returns per unit of production. Crop insurance changes the distribution of expected income at low yields, with premium subsidies that encourage production of riskier crops and in riskier regions. Marketing loans truncate the distribution of expected per-unit revenues, with program benefits creating an incentive to produce specific crops when prices are near or below loan rates.

If ad hoc disaster assistance is not expected by the recipients at planting time and occurs after production decisions are made, this type of assistance may have little or no impact on current production. However, if producers of specific crops or in specific regions expect periodic disaster assistance based on past payments, these expectations can influence production.

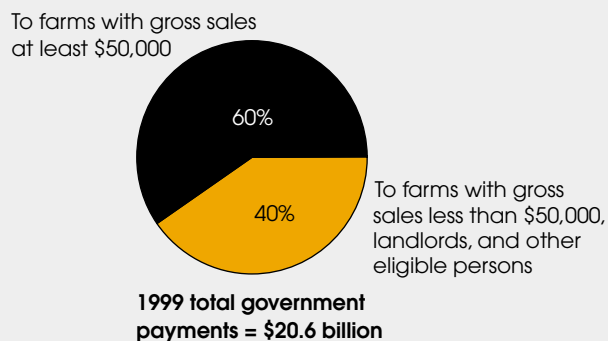
Production flexibility contract payments create a small incentive to increase aggregate production, with the mix of crops planted based on market signals. Among the four programs, however, market effects per dollar of outlay may be smallest for PFC payments because these program benefits do not depend on market conditions and are less directly linked to farmers' production decisions. **AO**

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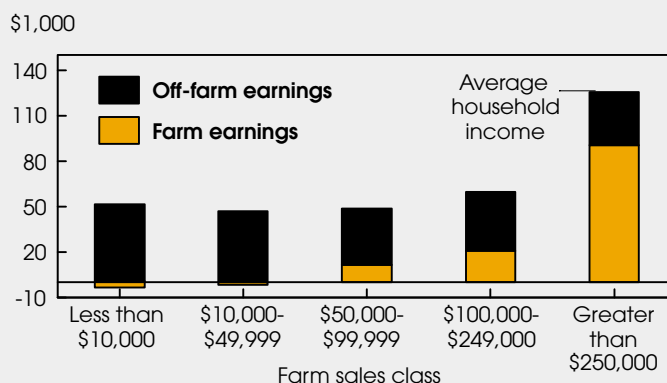
Policy

Most Farms Do Not Receive Government Payments. . .

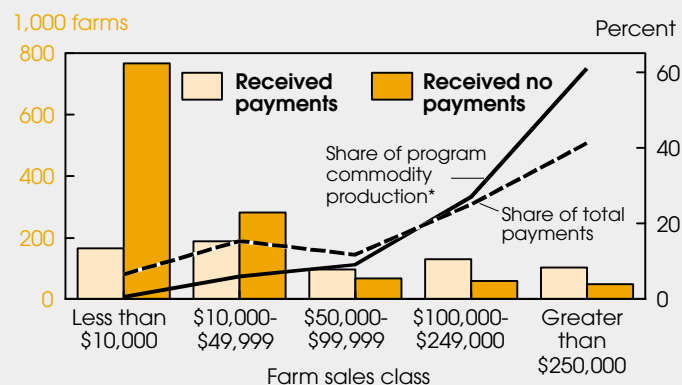
An operation with agricultural sales of at least \$1,000 meets Census definition of a farm.
Source: 1997 Census of Agriculture, National Agricultural Statistics Service, USDA.

. . . And More Than Half of Government Payments Go to Farms With Sales of at Least \$50,000

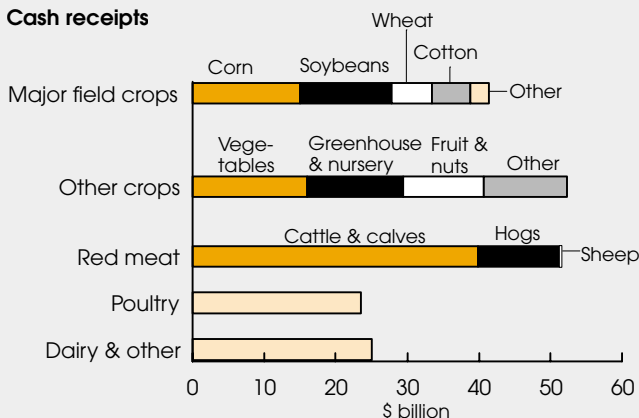
Distribution based on data from 1998 Agricultural Resource Management Study.
Economic Research Service, USDA

Large Farms Generate Most of Their Household Income From Farming. . .

Source: 1997 Agricultural Resource Management Study.
Economic Research Service, USDA

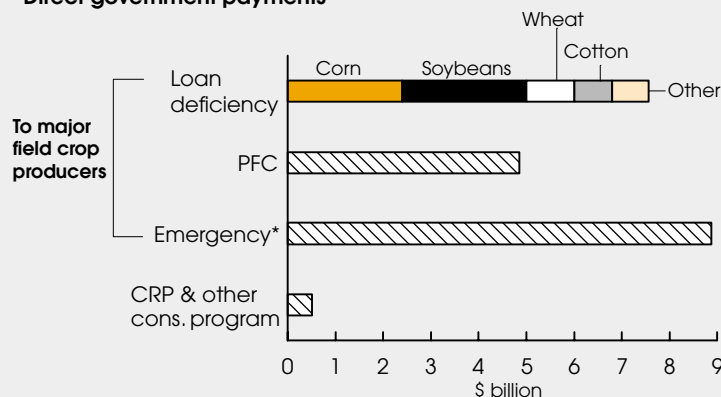
. . . And Receive a High Share of Government Payments

*Includes corn, wheat, soybeans, sorghum, barley, and oats.
Total 1997 government payments = \$5.054 billion as reported to Census.
Source: 1997 Census of Agriculture, National Agricultural Statistics Service, USDA.
Economic Research Service, USDA

Major Field Crops Account for Only One-Fifth of Total Cash Receipts in 2000, but Are Associated with Nearly All Direct Government Payments**Cash receipts**

2000 forecast. Total cash receipts are \$194.5 billion.
Other major field crops include rice, barley, oats, and sorghum.

Economic Research Service, USDA

Direct government payments

PFC=production flexibility contract; CRP = Conservation Reserve Program.
Total direct government payments forecast at \$23.3 billion in calendar 2000.
*A small portion is for producers of other crops and livestock.



Enid Hodges

How Important Are Farm Payments to the Rural Economy?

Advocates of farm program payments frequently assert that support for the farm sector is necessary for the survival of rural communities. They might draw on several facts about Federal farm payments to back up their case. For example, most government payments to agriculture go to rural areas, and they have a positive effect on incomes. Government payments smooth fluctuations in farm income caused by swings in commodity prices, and they also inject cash into the rural economy, providing farm businesses and households with income to support other rural businesses.

During the 1990's, about 8 of every 10 dollars in Federal direct farm payments went to farms in nonmetropolitan (nonmetro) counties. (About three-fourths of the more than 3,000 U.S. counties qualify as nonmetro because they have no population center of 50,000 persons or more.) Of the \$20.6 billion in Federal direct government payments to farms in 1999, an estimated \$16.7 billion went to farms in nonmetro counties.

In 1999, a dramatic fall in crop prices plunged estimated nonmetro gross farm receipts down \$17.8 billion from their 1997 level. Farm aid to nonmetro areas increased by an estimated \$10.6 billion

between 1997 and 1999, offsetting 60 percent of the decline in gross receipts. Without the increase in government payments, the impact of falling commodity prices on farm income in nonmetro areas would have been more severe.

Incomes of other rural businesses would have been affected as well. Purchases of farm inputs and equipment, as well as consumer spending by farm households, would have fallen without the cash-flow provided by government payments, dragging down sales of farm supply businesses, farm equipment dealers and manufacturers, retailers, and other rural businesses that depend on farm spending. Without government payments, some farms may have lacked sufficient cash to make mortgage and other loan payments to financial institutions.

Farm Share of Rural Economy Shrinks...

Farm payments have important impacts on farm income, planting decisions, and the allocation of resources to the farm sector, but they play a minor role in the economies of most rural communities. Over the seven decades since the first price support legislation was passed, most rural communities have reduced their

reliance on agriculture as additional non-farm jobs and businesses supplemented their economies.

While government payments have been important to farms and related rural businesses, the rural nonfarm economy has grown to such an extent that a strong downturn in the farm sector is barely noticeable in the statistics for the rural economy as a whole. What is more, other government programs have grown over the years so that today Federal income security payments and other types of programs play a much larger role in the rural economy than do farm program payments.

Today, net farm income amounts to only 2-3 percent of total nonmetro personal income. In most years of the 1990's, less than 1 percent of total nonmetro personal income came from government payments to nonmetro farmers.

Despite financial troubles in the farm sector during 1998 and 1999, total nonmetro personal income surged ahead by an estimated \$103 billion between 1997 and 1999. Most rural communities would have grown strongly even without the cushion provided by increased government farm payments. Sectors that have little to do with agriculture, such as service industries and manufacturing, provided most of the growth in rural income. Some rural industries, notably food processors that buy agricultural commodities, likely benefited from the low commodity prices that buffeted the farm sector.

...But Farming Remains Important in Some Areas

Is this too broad-brush an approach? While most of rural America has experienced substantial nonfarm growth over the past few decades, some areas remain highly dependent on agriculture. However, only a fraction of government farm payments go to those areas where farming is a key source of income and

Nonmetro counties are those that have no population center of 50,000 persons or more. *Farm-dependent counties* are those that receive 20 percent or more of labor and proprietors' income from farming.

Policy

How Government Farm Payments Affect the Local Economy

Farms and farm households affect local economies primarily through business and consumer spending. When farmers purchase seed, livestock, fertilizer, equipment, insurance, and fuel, and when they hire workers, make mortgage payments, spend their profits on household items, or pay local taxes, they inject money into the local economy, supporting local businesses and creating jobs. Government farm program payments may affect local economies indirectly by providing income to farmers that generates spending.

The effect on the rural economy depends on where money is spent. If a check from the government induces a farmer (or landlord) to increase spending locally, it will benefit the local economy. For example, a government farm payment used to purchase seed from a local farm supply store or to pay property taxes provides a boost to the rural economy. But if the payment is spent on a truck made in Detroit and purchased in Chicago, there will be little local impact.

The impact of farm program payments also depends on whether resources are fully employed in the local economy. If there is full employment locally, increased farm spending induced by government aid will simply bid workers and land away from other sectors, resulting in higher farm income at the expense of taxpayers, artificially inflated agricultural land prices, and a misallocation of resources. However, in a region with less than full employment and underemployed resources, agricultural program payments could strengthen the local economy.

Whether government payments induce farmers to increase spending depends on the type of program with which the payment is associated. Disaster payments to compensate for natural disasters or unusually low prices may prop up farmers' cash flow and encourage spending, protecting businesses that rely on farm spending from a disaster-induced slump.

However, payments that require farmers to idle land may have little net effect on the local economy. Farmers will still spend at least part of their government checks at their local grocery store or auto dealer, providing a boon to those businesses. But at the same time, they reduce their production expenditures on the idled land to comply with the program, hurting farm supply businesses. Also, some farm payments are in the form of loans that are paid back to the government. A loan has less local impact than a nonloan payment of equal amount.

jobs, and aggregate statistics may mask serious problems in isolated areas.

USDA's Economic Research Service (ERS) identified 556 nonmetro counties as "farm-dependent," with at least 20 percent of labor and proprietors' income derived from farming during 1987-89. These counties are concentrated primarily in the Great Plains from North Dakota to the Texas and Oklahoma Panhandles, in Iowa, and in parts of the Northwest, South, and Midwest. These are some of the least densely populated places in the U.S., where the dominance of farming often reflects the absence of other major industries. (Due to revisions in farm income accounting by the Bureau of

Economic Analysis and the growth in nonfarm income, many of the 556 counties identified as farm-dependent would no longer be included in an updated list.)

Income growth in farm-dependent counties lagged behind that of other nonmetro counties during the 1990's. Inflation-adjusted total personal income in farm-dependent counties grew 13 percent between 1990 and 1998, compared with 21 percent growth in other nonmetro counties. This probably reflects farm-dependent counties' reliance on the relatively slow-growing farm sector.

Income growth also is more volatile from year to year in farming counties than in other nonmetro counties. For example, real total personal income in farm-dependent counties fell 0.6 percent between 1994 and 1995, then rose a dramatic 5.3 percent in 1996 before slowing to a modest 0.9 percent in 1997. In other nonmetro counties, growth was fairly steady at 2-3 percent annually during 1991-98.

Farm-dependent local economies are like an investment portfolio loaded up with shares of a single company whose earnings bounce around from year to year. Farming is one of the more unstable industries, subject to vagaries of weather, disease, and world markets. The experience of the 1990's indicates that volatility of farm income is reflected in variability in total income growth of farm-dependent counties. The 1994-95 decline in real personal income for the 556 farm-dependent counties coincided with a 22-percent fall in farm income. The 5.3-percent income rise during 1995-96 likely reflected a large increase in farm income during 1996, a year of high crop prices. The slowing of farm-dependent county personal income growth during 1996-97 to 0.9 percent corresponded with a 20-percent decline in farm income during that year.

Nonmetro Total Personal Income Grew from 1997 to 1999 Despite Decline in Farm Income

	1997	1999	Change
	\$ billion		Percent
Gross farm receipts	135.1	121.2	-13.8
Plus Government payments	6.1	16.7	10.6
Plus Farm-related income	8.4	10.1	1.7
Minus Farm expenses	111.8	112.1	0.3
Equals Farm net cash income	37.7	35.9	-1.8
Total nonmetro personal income	1,053.90	1,157.10	9.8

Figures may not add to total due to rounding

Source: Estimates based on data from the U.S. Department of Commerce, Bureau of Economic Analysis.
Economic Research Service, USDA

This apparent link between farm income volatility and variability in total income growth suggests that cash-flow fluctuations for farmers can reverberate more strongly in those counties that rely on the farm sector and that offer fewer alternative income sources. In these local economies, government payments may play a more important role in smoothing out cyclical fluctuations.

Government payments may also keep some farms in operation that would otherwise not be in business. In most areas where there are promising alternative uses for the land, labor, and capital, farm payments may encourage an inefficient allocation of resources. However, in a farming-dependent region where opportunities for alternative uses of these resources are lacking, a payment that keeps land, labor, and capital in farming may boost the local economy. Removal of farm program payments would lead to faster loss of population, decline in land values, and failure of local businesses that rely on farm spending.

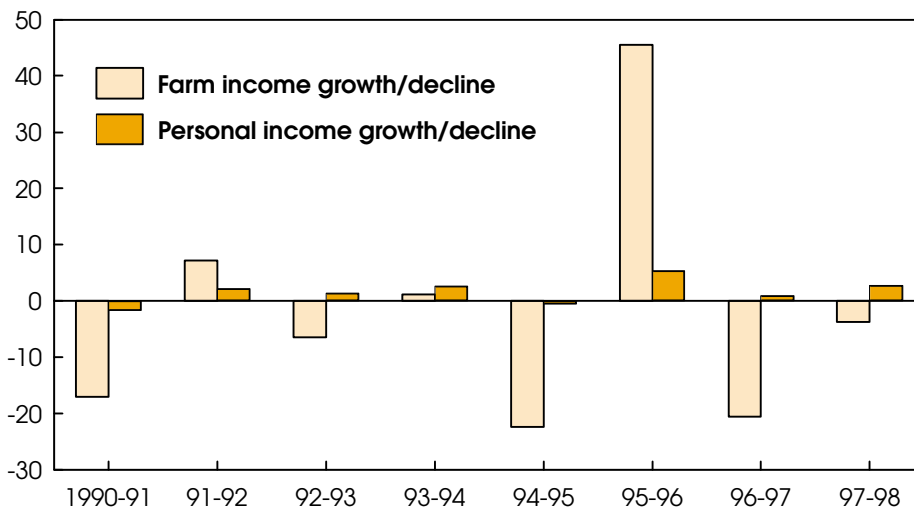
It is very difficult to gauge the actual effect of farm payments on rural economies. However, simulations using economic models have predicted that removing farm payments would reduce output and employment in the rural economy while benefiting the urban areas of the U.S.

Government programs that provide payments to farmers can benefit some rural areas. But as economic development policy they perform poorly. A large part of government farm payments go to areas where they are barely a blip in the local economy. Farming-dependent counties—where government payments to farmers play a significant role in the local economy—received only 37 percent of farm program payments in 1998, while 19 percent went to metro counties and 44 percent went to non-farm-dependent non-metro counties.

In metro and non-farm-dependent non-metro counties, government payments to farms have no noticeable effect on the local economy because they account for such a small share of income. In commu-

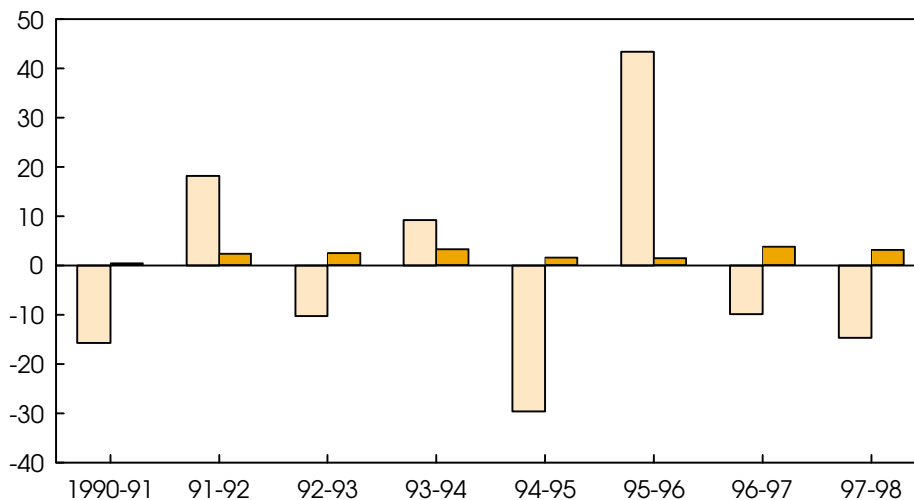
Personal Income Growth Rates in Farm-Dependent Counties Reflect Volatility of Farm Income...

Percent change



...But Remain Fairly Steady in Other Nonmetro Counties Despite Swings in Farm Income

Percent change



Nonmetro counties are those with no population center of 50,000 or more. Farm-dependent counties are those with at least 20 percent of labor and proprietors' income from farming in 1987-89.

Economic Research Service, USDA

nities with healthy growth prospects, government payments to farms may slow the growth of other economic sectors by driving up land prices and diverting capital away from other local businesses.

Farm Payments a Small Part Of Federal Assistance in Rural Areas

Program payments to farmers are a small fraction of what the Federal government spends in rural areas today, as other Federal government programs that pro-

Policy

Income Security Payments Account for Largest Share of Federal Funds Received by Rural Areas in 1998

	County type		
	All	Farm-dependent	Metro
	\$ per person		
All Federal funds, 1998	5,028	5,685	5,514
Direct payments to farms	182	937	11
Other agricultural and natural resources	87	339	14
Community resources ¹	407	484	634
Defense and space	305	142	728
Human resources ²	117	123	100
National functions ³	508	344	879
Income security ⁴	3,422	3,315	3,147
	Million persons		
Estimated population, 1998	54.5	4.8	215.7

Figures may not add to total due to rounding.

1. Includes business assistance, community and regional development, environmental protection, housing, transportation. 2. Includes education, food and nutrition, health services, social services, employment.

3. Includes criminal justice, law enforcement, energy, higher education, research.

4. Includes medical benefits, public assistance, unemployment compensation, Social Security.

Source: Calculated by ERS using Bureau of the Census Federal funds data.

Economic Research Service, USDA

vide assistance to individuals, businesses, and state and local governments have grown over the years. In 1998, per capita Federal spending in nonmetro counties totaled \$4,725, including only \$182 for farm payments. In farm-dependent counties, farm payments were much higher—\$937 per capita—but still less than one-fifth of \$5,369 in per capita Federal spending. Higher levels of government payments in 1999 brought per capita farm payments to an estimated \$300 in nonmetro counties and \$1,575 in farm-dependent nonmetro counties, still a small share of all Federal spending in those counties.

Most Federal funds received by nonmetro counties are for income security, including Social Security, disability payments, other retirement benefits, medical and hospital benefits, public assistance, and unemployment compensation. Income security payments have a large impact on the rural economy. In 1998, nonmetro income security payments averaged \$3,143 per capita—two-thirds of total per capita Federal funds received—and accounted over 12 percent of nonmetro total personal income.

Income security payments support spending by the large share of rural residents that are retired, including the substantial

proportion of farmers who receive Social Security and other Federal retirement income. The payments also provide disposable income to disabled and unemployed persons, as well as funds for maintenance of rural medical services.

In nonmetro counties as a group, the 1998 per capita direct payments to farmers (\$182) were outweighed by 1) per capita community resource funding (\$406 per person), which includes business assistance, community facilities, regional development, environmental protection, housing, Native American programs, and transportation; 2) defense and space programs (\$305 per person); and 3) national functions (\$508 per person), which include law enforcement, energy, higher education, and research and other programs. The average \$1,219 per capita disbursed under these programs affects rural economies by providing infrastructure, stimulating construction projects, and providing salaries for Federal government employees.

In nonmetro counties, per capita funding for farm programs in 1998 exceeded per capita Federal funding for other agricultural and natural resource programs—agricultural research and services, forest and land management, water and recreation services—and for human resources

programs—elementary and secondary education, food and nutrition, health services, social services, training and employment. Federal grants also support many of the larger human resources programs, but local area funding amounts are not known because the funds are distributed by state governments.

In 1998, total per capita Federal funding for metro counties (\$5,212) outpaced nonmetro counties (\$4,725), but funding was higher for farm-dependent counties (\$5,369), because of their relatively high per capita agricultural payments.

Nonmetro counties received more funding per capita for income security programs—\$3,143 versus \$2,864 per capita for metro counties—due mainly to retirement benefits received by the somewhat older population in rural areas. Higher per capita agricultural and income security funding in nonmetro counties partly makes up for the smaller nonmetro share of funding for community resource, defense and space programs, and national functions in rural areas.

Changes in farm programs, or even a discontinuation of commodity programs, would not have major impacts on most rural communities. Only a minority of rural counties appear vulnerable to the loss of farm payments, and the number appears to be shrinking; a recent study of data from the mid-1990's indicates that many fewer counties meet the farm-dependent criterion than a decade ago. In most rural communities, farm payments will continue to play a minor role in the economic landscape, a role that is overshadowed by the impact of Federal retirement payments, medical payments, and other nonfarm programs.

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For more information on Federal funds data, see S.D. Calhoun, R.J. Reeder, and F.S. Bagi, "Federal Funds in the Black Belt," *Rural America* Vol. 15, No.1 (January 2000): pp. 20-27; <<http://www.ers.usda.gov/epubs/pdf/ruralamerica/ra151/contents.htm>>.

Current Tax Policy vs. a Flat Tax: Effects on U.S. Agriculture

Federal tax policy has far-reaching effects on the farm economy overall, but regional variations exist partly because state tax policy can offset or intensify the effects of Federal taxation. USDA's Economic Research Service uses an economic model to simulate tax reform and to measure the effects of tax policies on farm markets by comparing current economic conditions in the farm economy with conditions that might exist under a single-rate (flat) income tax. In the analysis, the flat tax rate—one nationwide rate for Federal taxes but different flat rates for each state—applies to *all* income from *any* source.

Current Federal and state tax codes have graduated rate schedules, and provide for numerous exemptions, deductions, deferrals, and other special provisions that shelter certain types of income from taxation. Federal tax policy is favorable to farmers, but states, unlike the Federal government, tax real property, and farmers hold a disproportionate share of such assets.

Provisions incorporated in current Federal tax policies increase average net farm income and average farm household income by lowering the tax burden. According to USDA, the average U.S. farm household in 1997 earned almost \$6,000 in net farm income (before income taxes) and around \$46,000 from other income sources. After applying tax accounting provisions to farm business income, the average farm household filing a Federal Form 1040, Schedule F (profit or loss from farming) declared around \$3,000 in net farm losses, offsetting household income that would otherwise be taxable. Thus, farmers, on average, realize positive net income from farming activities, but adjustments to that income under the current tax code result in lower household tax liability.

Current tax policies generally push up farm-level prices relative to prices under a flat tax. At the current level of farm production, prices of farm products reflect a tax rate on farm income that averages 29 percent (excluding tax rates for publicly-held corporations). This combined average tax rate includes about 21 percent for Federal tax and 8 percent for states (although there is significant regional variation). A flat tax rate that raises the same amount of Federal and state tax revenues would be a combined 20.3 percent. Thus, adding a dollar of farm income to average farm household income lowers the average farm loss by a dollar

and adds 29 cents to the household's tax bill under the current system compared with about 20 cents under a flat tax.

For food manufacturers—the primary customer of agricultural producers—product prices reflect an average combined tax rate of 39 percent, compared with an average 34.5 percent for all nonfarm businesses. Under the current tax system, this heavier-than-average tax burden—primarily reflecting high tax rates on corporate profits—causes food manufacturing businesses to scale back production and demand less farm output than under a flat-tax system. In turn, farm prices decline until farmers sell all they produce.

In the longer run, farm and nonfarm producers adjust to the effects of taxation. Over time, some labor and capital displaced by the scaling back of food manufacturing and other highly taxed industries become available for farm production at reduced costs. Overall, the lower pre-tax cost of labor and capital in farm production nearly offsets the higher tax rate under the current tax system, leading to after-tax costs of only 0.2 percent above a flat-tax scenario.

Even though production costs are about the same, lower demand for farm output by food manufacturers leads to lower farm output (less than 1 percent) under the current system than under a flat-tax system. However, in several regions, farm output increases for reasons that involve regional variation in farmers' ability to take advantage of specific tax provisions.

Farm industries in most U.S. regions attract less investment under current tax policies than they would under a flat tax. On average, capital per worker in farming is 3.7 percent lower under current Federal and state tax policy than it would be under a flat tax. This result reverses findings from other USDA analyses of Federal tax policies alone, and reflects the negative effects of state property tax policy on direct farm investment. Regional disparities in changes in farm markets—e.g., in producer prices and farm output—also add potential for shifts in agricultural resources among states.

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Regions Vary in Combined Tax Rates. . .

	U.S.	Northeast	Southeast	Corn Belt	Lake	Delta	Appalachia	N. Plains	S. Plains	Mountain	Pacific
<i>Percent</i>											
Combined tax rate (Federal plus state)											
Current tax system:											
Farm households	29.0	30.5	25.6	31.3	34.8	25.5	27.4	31.1	27.8	30.3	25.5
Nonfarm business	34.5	35.7	33.9	34.4	37.3	31.6	34.2	33.7	31.0	33.6	33.8
Flat tax	20.3	21.4	19.2	19.5	21.2	18.8	19.0	19.4	18.6	19.9	21.3

...And in Tax System Effects on Farm Markets

Percent difference											
Current tax system vs. flat tax:											
Producer price index	0.2	-0.5	0.0	0.3	0.9	-0.5	-0.6	0.5	0.5	0.4	-0.1
Farm output	-0.4	3.4	-1.2	-1.1	-3.0	2.5	3.8	-2.9	-2.3	-0.1	1.0
Capital per worker	-3.7	1.5	-4.1	-2.7	-6.2	2.0	1.2	-6.0	-2.0	-1.9	-7.4
Net farm investment	-1.5	-1.8	-1.8	-2.8	-6.1	5.1	-0.8	-0.7	0.5	0.1	-0.6

Average U.S. and regional combined tax rates reflect variation in state tax rates. The flat tax rate is sufficient to fund current government budgets and applies to all income from all sources. Effect of current tax system versus a flat tax, treating flat tax as the base.

Economic Research Service, USDA

Special Article

Taiwan's Hog Industry— 3 Years After Disease Outbreak

It has been 3 years since the highly contagious foot-and-mouth disease (FMD) hit Taiwan's densely packed hog farms. The outbreak ravaged Taiwan's hog industry and eliminated Japan's largest single source of imported pork. The severity and duration of the epidemic and the ways that the Taiwan authorities have handled the industry during and since the crisis have set the future course of Taiwan's hog industry, with substantial implications for production and trade of most major pork trading countries.

In Taiwan, pork is traditionally the leading meat produced and consumed. For years before the outbreak of FMD, pork—exported almost exclusively to Japan—had been Taiwan's most valuable agricultural export. In 1996, the last full year before the outbreak, Taiwan had a total yearend sow population of about 1.4 million, with 14.3 million hogs slaughtered and about one-third of these for the Japanese market. According to Japanese customs data, Taiwan supplied 41 percent of Japan's pork imports in 1996; the U.S. was next in line, supplying 23 percent, Denmark 18 percent, and Canada 5 percent.

In 1996, hog population density in Taiwan was high—the ratio of hogs to land area was second only to the Netherlands. Many small, inefficient hog farms packed in crowded areas coexisted with Taiwan's large, modern operations. Nearly two-thirds of Taiwan's hog farms had fewer than 200 hogs each, and these farms accounted for less than 8 percent of the total hog inventory.

For years before the outbreak of FMD, the hog industry had been lucrative; pork sales were highly profitable both off and on the island. For live-weight hogs, the 10-year-average auction price in U.S. dollars per 100 kg was about \$183 (NT\$ 4,980—New Taiwan dollars), against an estimated production cost of about \$147 (NT\$ 4,000). Exports of hog products, primarily pork exports to Japan, totaled \$1.6 billion in 1996.

While Taiwan exported prime meat cuts, offal and other cuts were sold on the local market. Many of these products commanded high prices locally, not only because they were favored menu items among consumers but because the market was protected from imports. Taiwan had banned pork offal imports since 1975 and had effectively banned low-value pork cuts (cuts other than hams, shoulders, tenderloins, and loins) through discretionary licensing since 1989. Yearly domestic consumption of pork per capita was, at 40 kg, among the world's highest.

Battling the Disease

On March 20, 1997, Taiwan announced an export ban on its pork because of an outbreak of FMD on its hog farms. By the time of the announcement, 3,828 hogs were infected on 28 farms, and 1,440 were dead. The number of farms affected by this highly



The Council of Agriculture, Executive Yuan, Taiwan, ROC

contagious disease soared. By the end of March, 235,114 hogs were infected on 1,300 farms, and 56,127 hogs were dead.

Taiwan authorities, along with the island's hog industry, faced a dilemma. Farmers and meat processors wanted to kill all the hogs and start over. But for several reasons, the Council of Agriculture (COA)—Taiwan's equivalent of the U.S. Department of Agriculture—recommended controlling the disease by vaccinating healthy hogs at disease-free farms. First, with about 100,000 people raising hogs and 700,000 in related businesses, and with 11 million hogs in stock before the outbreak, destroying the entire hog population would seriously impact the island economically, socially, and politically, and carry a substantial environmental cost of disposal. Second, given that the last recorded FMD outbreak had occurred in 1918, it seemed highly possible that the disease had come from abroad. If that were true, destroying the domestic hog population might not prevent a reinfection. Taiwan's legislature on March 25 adopted COA's recommendation: exterminate all hogs at FMD-contaminated farms and inoculate uninfected animals.

Since late March 1997, it has been compulsory for each of Taiwan's hogs to be vaccinated twice in its life for FMD. In addition, since September 1997, FMD surveillance regulations require farmers to submit a monthly veterinary report on vaccination of their hogs.

As the vaccinations began to take effect, the FMD epidemic slowed. In less than 3 months, it was basically under control. Only a handful of new cases were reported after early June 1997, and the COA relaxed its policy. Rather than destroying all hogs raised on farms where disease was present, only the diseased

hogs had to be destroyed. After a case of FMD turned up on July 16, 5 months passed with no new cases reported. Taiwan optimistically targeted being FMD-free by June 2001.

Between March 20 and July 16, 1997, FMD had cost Taiwan more than 4 million of the island's nearly 11 million hogs. Of these, 185,000 died from the disease, and 3.85 million on infected farms had to be destroyed. In the course of 4 months, the epidemic had contaminated 6,147 of the island's 25,357 farms.

The virus, called O/Taiwan/97 by the International Epizootics Office (OIE)—the international body that monitors disease outbreaks among livestock—apparently affected only hog farms, bypassing Taiwan's small dairy, beef, water buffalo, and sheep operations. Testing indicated that O/Taiwan/97 was a strain of virus also present in China.

FMD appeared again in Taiwan in December 1997. A handful of FMD cases cropped up until April 29, 1999, the last time that infected hogs have been reported there. Although the more recent instances were few, they indicated that Taiwan's FMD surveillance regulations were not fully effective. For example, many of the 1998 cases were discovered at auctions, as farmers tried to unload sick hogs to avoid losses. Thus, effective August 1, 1998, hogs vaccinated against FMD had to display eartags, and untagged hogs could not be sold at auction or to slaughterhouses. In addition, farmers who did not vaccinate their hogs were fined from \$300 to \$1,500 (NT\$10,000 to NT\$50,000).

Still, it has been difficult to ensure islandwide vaccination because many small-scale farms do not sell hogs at auction and easily evade the authorities' supervision. The 12 hogs involved in the April 1999 case, for instance, and killed after they tested positive for FMD, were found deserted in a mountain area in northern Taiwan. In December 1999, the COA was able to report that Taiwan's hog FMD vaccination rate had reached 92 percent.

But in June 1999, FMD had turned up in cattle farms in Kinmen, a small island associated with Taiwan and a few kilometers off the shore of mainland China—Taiwan's first reported case in cattle in five decades. Later in June and in July 1999, FMD was found on nine beef cattle farms on the island of Taiwan; all cattle on these farms—several hundred head—were destroyed or died of the disease.

In January 2000, additional cases of FMD, this time in dairy cattle, were reported in central Taiwan. Authorities decided on January 10 to try across-the-board vaccination for all cloven-hoofed animals, including hogs. Since then, only two outbreaks of FMD have occurred, both in February on sheep farms in southern Taiwan.

Testing indicated that the FMD virus on Taiwan's cattle and sheep farms, called O/Taiwan/99 by OIE, was 99 percent identical to the virus on Kinmen, where widespread smuggling of agricultural and livestock products from mainland China was suspected.

Foot and mouth disease (FMD) is highly contagious, affecting primarily cloven-hoofed animals (e.g., cattle, sheep, goats, hogs). The disease is characterized by the formation of blisters on tissues of the mouth (reducing appetite and hindering food conversion) and on the skin above the claws of the feet. The disease cause is a virus, which can be found in the blood and other body secretions (e.g., saliva, milk). The virus can be spread by many different carriers, including humans, flies, ticks, most meat products, manure, semen, feeds, water, and soil. Although deaths of adult animals are not ordinarily high from FMD, infected animals are usually destroyed. To avoid infecting their own herds, nations ban imports of live cloven-hoofed animals and fresh, chilled, and frozen meats of those animals, from areas experiencing outbreaks of FMD. Under these bans, only canned and cured meats from susceptible animals may be imported from FMD-affected countries.

Restructuring the Hog Industry: Downsizing & Rebuilding

Taiwan's authorities have taken advantage of the FMD crisis to address generally the problems of hog farming on the island. Even before the FMD outbreak, official policy aimed to reduce the number of hogs, because raising hogs posed a serious environmental hazard to this land of limited water resources and more than 20 million people.

The need to reshape the hog industry intensified after the U.S. and Taiwan concluded the Bilateral Market Access Agreement on February 20, 1998, a precondition for Taiwan to join the World Trade Organization (WTO). Since the agreement, Taiwan has allowed a pre-accession annual import quota for pork bellies and offal (fresh and frozen). This year, Taiwan raised the quota to the level agreed upon for year one of its WTO access—6,160 tons of pork bellies and 10,000 tons of pork offal. As a result, parts, such as hearts and kidneys, will face import competition, reducing the profitability of hog raising.

To chart a new course for the hog industry, in July 1997 Taiwan implemented the 4-year Hog Industry Sustainable Management Plan, which remains in place today. New standards for water discharged from hog farms have been implemented on schedule since January 1, 1998 (for the new Chemical Oxygen Demand standard, farms had a 2-year grace period). Today, any farm with more than 20 hogs is subject to these new waste water regulations. In addition, after December 31, 2000, strict limits will apply to hog farming in the watershed of rivers used as sources of drinking water.

The authorities published the first Hog Industry White Paper in April 1998. A new Livestock Law passed in June of that year required all farms with more than 20 hogs to register by June 30, 2000, and thereby become subject to its various regulations. Fines for those who fail to register range from about \$930 to \$4,650 (NT\$30,000 to NT\$150,000). In addition, a buyout program with a budget of more than \$54 million (NT\$ 17.5 billion)

Special Article

targeted small livestock and poultry farms from October 1998 until June 1999.

In the course of this radical restructuring, Taiwan's hog industry has downsized substantially since the outbreak of FMD was announced in March 1997. Hog prices dropped immediately and dramatically with the loss of the Japanese market and because of consumers' fear of the disease (although FMD poses no threat to human health). The hog industry started to rebuild when authorities allowed hog farms to resume operation in August 1997. But by the end of that year, Taiwan had 19 percent fewer hog farms than in 1996 (20,454 in 1997) and 26 percent fewer hogs (less than 8 million in 1997). Although pork consumption picked up, hog prices remained generally low until mid-1998.

In 1998, the hog industry downsized still further—down 16.5 percent from 1997 in hog farms and 17.9 percent in hogs. With no large and lucrative Japanese pork market and with new import competition that followed the U.S.-Taiwan bilateral WTO agreement, farmers in 1998 cut hog production. In addition, stringent wastewater standards and authorities' hog buyout program have caused many hog farmers to exit the industry, resulting in a short supply of pork products since late 1998.

In fact, since mid-1998, hog prices have been relatively high. As a result, although the number of hog farms dropped another 6 percent in 1999, to 16,016, the year-end hog inventory rose 11 percent, to 7.24 million. Compared with pre-FMD levels (1996), the number of hog farms in 1999 had fallen nearly 37 percent, while the number of hogs had declined more than 32 percent.

Along with industry downsizing, the ratio of large to small hog farms has changed. Recent restrictions imposed by the Livestock Law and the new environmental regulations are relatively expensive for small hog-farm operations, and the 1998-99 buyout program gave substantial incentive to many small farm operators to quit the industry permanently. Of the 5,070 hog farms that took advantage of the buyout program, 45 percent had fewer than 200 hogs, and nearly 90 percent had fewer than 1,000. The upshot has been a rise in the percentage of farms that raise more than 1,000 hogs, from 9.5 percent in 1996 to 11.4 percent in 1999, as farms that raise fewer than 200 hogs dropped from 62.2 percent to 59.9 percent.

Industry Prospects Revised Down

Taiwan's hog farmers will not reclaim their lucrative pork export market in the near future. Although the FMD outbreaks have been controlled, Taiwan still is listed as an FMD-infected area. According to OIE, a country must meet at least two important criteria to be recognized as FMD-free: No disease outbreaks in the preceding 24 months, and no FMD vaccination for the preceding 12 months.

The reoccurrence of FMD also means that neither Taiwan nor its hog industry can relax its guard. Although Taiwan authorities have imposed stricter regulations and harsher penalties to deter smuggling and to make farmers inoculate hogs regularly and report any animal infections, there is room for improvement, particularly in being better prepared to handle an epidemic such as FMD. In addition, the tenacity of the FMD virus is a serious challenge to regulatory authorities. The virus can survive for long periods in the air, in food, or in garbage, and even in hides, hair, and wool. Given the nature of FMD, no matter how carefully laid the plans for confining and eradicating the disease, anything can happen.

Ongoing fundamental problems for Taiwan's hog industry include high prices and production costs, and the harmful practices of some small hog operations. The *high prices* that hogs and pork commanded in Taiwan appeared to be part of the undoing of the industry because they encouraged smuggling of live piglets or meat products that are thought to have brought the disease to the island. High prices also made Taiwan vulnerable to import competition, particularly since the signing of the U.S.-Taiwan Bilateral Market Access Agreement.

Production costs are high in Taiwan because all feed ingredients must be imported and because land and labor are relatively expensive. With relatively modest import quotas in place now, current imports of pork products have not had much impact on Taiwan's hog industry. But with the gradual relaxation of trade barriers in the future, it is likely that only the best-managed farms will survive and that small farmers will be squeezed out by relatively high production costs.

On top of high prices and high production costs, other challenges facing authorities charged with supervising hog operations are liable to limit the hog industry's comeback. For example, inadequate vaccination practices at some smaller farms not

Taiwan's Hog Inventory Dropped Sharply and Shifted to Larger Farms

	Farms	Yearend inventory	Farms with herds less than 200 head		Farms with herds more than 1,000 head	
			Share of total farms	Share of inventory	Share of total farms	Share of inventory
	No.	1,000 head	Percent			
1996	25,357	10,698	62.2	8.0	9.5	55.6
1997	20,454	7,967	63.6	9.0	8.7	54.8
1998	17,072	6,539	65.4	8.3	8.7	56.9
1999	16,016	7,243	59.9	6.6	11.4	60.2

Source: Council of Agriculture, *Agricultural Policy & Review*, various issues.
Economic Research Service, USDA

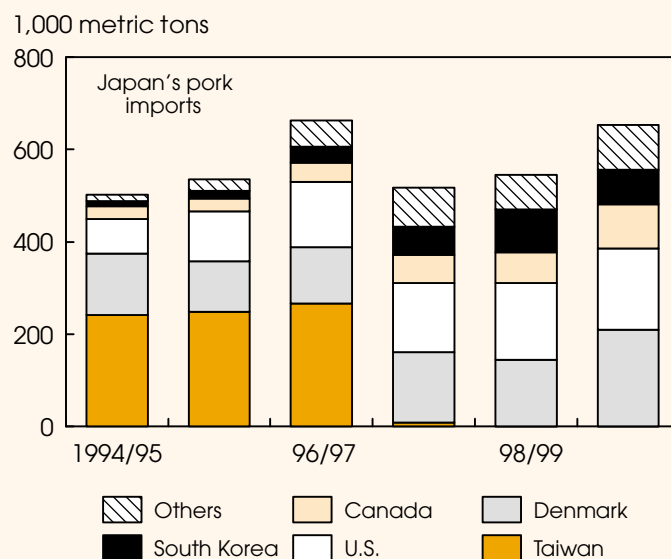
Replacing Taiwan's Pork in Japan's Import Market

The sudden end of Taiwan's exports to Japan, the world's largest pork importer, offered a potentially large opportunity for meat exporters. However, Japan's total pork imports in fiscal 1997 fell by 146,000 tons—over half of Taiwan's trade was not replaced by imports from other sources. Instead, Japan increased production in 1997 and 1998, for the first time in the 1990's, and drew down stocks. Consumption fell by over 2 percent.

Japan's imports from the U.S. rose 7,000 tons (5 percent) from 1996 (the last pre-FMD year) to 1997, and imports from Canada grew by almost 20,000 tons (49 percent). The major immediate beneficiary of Taiwan's lost trade was South Korea, with imports rising 27,000 tons (79 percent). Since then, imports have rebounded almost to the 1996 peak level, with Denmark, Canada, the U.S., and South Korea all sharing in the gains. The outbreak of FMD among South Korean cattle in 2000 has shut down that country's ability to export pork, so that the FMD-free regions in North America and Europe will likely supply virtually all of Japan's imports in the near future.

The aftermath of Taiwan's FMD epidemic showed that Taiwan's pork exports were not easy to replace. Taiwan's consistent supply of pork was highly valued in Japan. Another development after the FMD outbreak was an outward flow of investment and production information from Taiwan's pork industry. Taiwan's large pork-exporting firms made investments in North American farms and plants that

Taiwan No Longer Ships Pork to Japan



Fiscal year beginning April.

Economic Research Service, USDA

could export to Japan, and experts from Taiwan taught production and marketing techniques to suppliers in South Korea and North America. **AO**

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only make it difficult for Taiwan to eradicate FMD but also jeopardize the stocks of other hog farms and increase their operational risks. In addition, these small hog farms are likely to ignore or attend less to environmental protection. Given Taiwan's limited space and large population, coupled with growing opposition from residents to environmental pollution caused by hog raising, the industry has long been a major environmental concern on the island.

Now, 3 years after the outbreak of FMD, the debate over whether Taiwan's once lucrative hog industry can or even should reach its former peak production level has died down. Such speculation has given way in most quarters to the belief that

Taiwan may never regain its status as the world's leading pork exporter to Japan. Many larger farm operators are pessimistic about the prospects for Taiwan's pork exports to Japan, and a large share of the population believes that environmental risks outweigh the economic benefits to be derived from the hog industry. The Taiwan authorities' goal for the industry in the short run is to eradicate FMD. Their long-range goal is to make the industry sustainable, environmentally safe, and competitive with imports. Finally, however, the market, not the authorities, will determine whether or not Taiwan can re-enter the pork export market. **AO**

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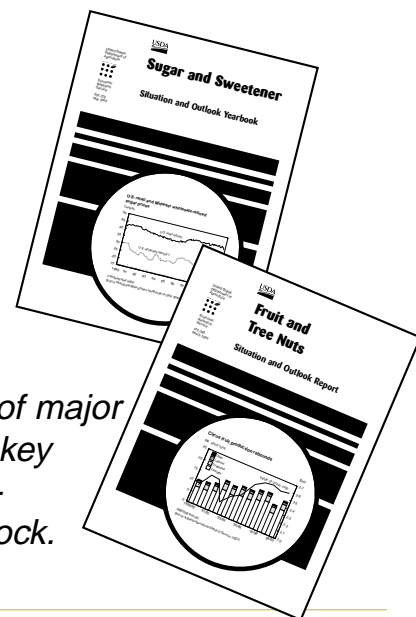
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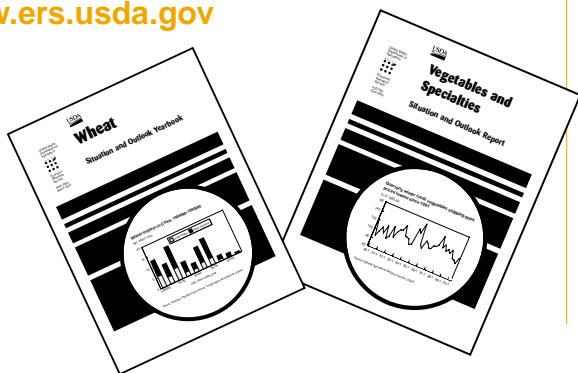
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Statistical Indicators

Summary Data

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

	1999					2000				2001
	1998	1999	2000	III	IV	I	II	III	IV	I
Prices received by farmers (1990-92=100)	101	96	--	97	92	92	101	--	--	--
Livestock & products	97	95	--	97	96	95	100	--	--	--
Crops	106	96	--	97	88	90	102	--	--	--
Prices paid by farmers (1990-92=100)										
Production items	113	112	--	111	113	115	116	--	--	--
Commodities and services, interest, taxes, and wage rates (PPITW)	115	115	--	115	116	119	120	--	--	--
Cash receipts (\$ bil.)	197	189	194	47	59	46	44	47	57	--
Livestock	94	95	100	24	24	25	25	25	25	--
Crops	102	93	94	23	34	21	19	22	32	--
Market basket (1982-84=100)										
Retail cost	163	167	--	167	169	169	169	--	--	--
Farm value	103	98	--	98	97	95	96	--	--	--
Spread	195	205	--	204	207	209	209	--	--	--
Farm value/retail cost (%)	22	21	--	21	20	20	20	--	--	--
Retail prices (1982-84=100)										
All food	161	164	168	164	165	166	167	169	169	170
At home	161	164	168	164	165	166	167	169	169	170
Away from home	161	165	169	166	167	168	168	169	170	172
Agricultural exports (\$ bil.) ¹	53.6	49.0	50.0	11.6	13.6	13.3	12.0	11.2	13.2	--
Agricultural imports (\$ bil.) ¹	37.0	37.4	39.0	8.8	9.6	10.1	10.2	9.1	9.0	--
Commercial production										
Red meat (mil. lb.)	45,134	46,134	46,084	11,624	11,756	11,595	11,279	11,627	11,583	11,361
Poultry (mil. lb.)	33,667	35,590	36,699	8,986	8,894	9,019	9,285	9,160	9,235	9,340
Eggs (mil. doz.)	6,658	6,912	7,062	1,728	1,786	1,754	1,743	1,755	1,810	1,770
Milk (bil. lb.)	157.3	162.7	167.7	39.8	40.4	42.6	43.2	40.9	41.0	42.7
Consumption, per capita										
Red meat and poultry (lb.)	213.5	220.5	221.2	55.5	55.9	53.9	54.9	55.7	56.8	54.5
Corn beginning stocks (mil. bu.) ²	883.2	1,307.8	1,787.0	5,698.4	3,616.2	1,787.0	8,024.7	5,602.0	3,586.9	--
Corn use (mil. bu.) ²	8,791.0	9,298.3	9,470.0	2,089.4	1,831.1	3,203.2	2,426.1	2,020.6	--	--
Prices ³										
Choice steers--Neb. Direct (\$/cwt)	61.48	65.56	68-69	65.12	69.65	69.32	71.59	64-65	67-71	67-73
Barrows and gilts--IA, So. MN (\$/cwt)	34.72	34.00	44-45	35.70	36.29	41.14	50.43	45-46	39-41	41-45
Broilers--12-city (cents/lb.)	63.10	58.10	55-56	58.10	57.60	54.60	55.70	56-57	54-56	51-55
Eggs--NY gr. A large (cents/doz.)	75.80	65.60	64-65	66.20	63.20	63.30	62.10	65-66	65-69	60-66
Milk--all at plant (\$/cwt)	15.42	14.36	12.35-12.55	14.87	13.83	11.90	12.03	12.50-12.70	13.05-13.55	11.70-12.50
Wheat--KC HRW ordinary (\$/bu.)	3.27	2.92	--	2.82	2.83	2.92	2.95	--	--	--
Corn--Chicago (\$/bu.)	2.41	2.01	--	1.83	1.91	2.12	2.16	--	--	--
Soybeans--Chicago (\$/bu.)	6.01	4.61	--	4.40	4.53	4.95	5.20	--	--	--
Cotton--avg. spot 41-34 (cents/lb)	67.02	52.31	--	49.11	48.08	54.63	55.68	--	--	--
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Farm real estate values ⁴										
Nominal (\$ per acre)	703	713	740	798	844	887	926	974	1,020	1,050
Real (1982 \$)	521	507	514	540	558	572	586	606	627	636
U.S. civilian employment (mil.) ⁵	126.3	128.1	129.2	131.1	132.3	133.9	136.3	137.7	--	--
Food and fiber (mil.)	23.5	23.1	23.6	24.3	24.7	24.5	24.6	24.8	--	--
Farm sector (mil.)	2.0	1.9	1.8	1.9	2.0	2.0	1.9	1.8	--	--
U.S. gross domestic product (\$ bil.)	5,986.2	6,318.9	6,642.3	7,054.3	7,400.5	7,813.2	8,300.8	8,759.9	--	--
Food and fiber--net value added (\$ bil.)	881.8	924.8	971.4	1,077.1	1,140.8	1,216.5	1,323.3	1,367.2	--	--
Farm sector--net value added (\$ bil.) ⁶	71.1	75.5	73.1	78.3	75.3	86.7	84.5	74.3	--	--

-- = Not available. Annual and quarterly data for the most recent year contain forecasts. 1. Annual data based on Oct.-Sept. fiscal years ending with year indicated. 2. 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. 3. Simple averages, Jan.-Dec. 4. As of January 1. 5. Civilian labor force taken from "Monthly Labor Review," Table 18--Annual Data: Employment Status of the Population, Bureau of Labor Statistics, U.S. Department of Labor. 6. The value-added data presented here is consistent with accounting conventions of the National Income and Product Accounts, U.S. Department of Commerce.

U.S. & Foreign Economic Data

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

				1998		1999			2000	
	1997	1998	1999	IV	I	II	III	IV	I	II
<i>Billions of current dollars (quarterly data seasonally adjusted at annual rates)</i>										
Gross Domestic Product	8,318.4	8,790.2	9,299.2	8,974.9	9,104.5	9,191.5	9,340.9	9,559.7	9,752.7	9,942.9
Gross National Product	8,305.0	8,750.0	9,236.2	8,966.6	9,097.2	9,181.8	9,327.3	9,546.3	9,745.0	9,932.4
Personal consumption expenditures	5,529.3	5,850.9	6,268.7	5,986.0	6,095.3	6,213.2	6,319.9	6,446.2	6,621.7	6,707.1
Durable goods	642.5	693.9	761.3	723.4	733.9	756.3	767.2	787.6	826.3	814.4
Nondurable goods	1,641.6	1,707.6	1,845.5	1,745.2	1,786.4	1,825.3	1,860.0	1,910.2	1,963.9	1,997.2
Food	812.2	845.8	897.8	867.2	878.1	886.6	900.4	926.1	938.4	948.4
Clothing and shoes	271.7	286.4	307.0	291.7	301.1	306.1	308.7	311.9	323.1	325.6
Services	3,245.2	3,449.3	3,661.9	3,517.4	3,575.0	3,631.5	3,692.7	3,748.5	3,831.6	3,895.6
Gross private domestic investment	1,390.5	1,549.9	1,650.1	1,590.8	1,609.8	1,607.9	1,659.1	1,723.7	1,755.7	1,852.8
Fixed investment	1,327.7	1,472.9	1,606.8	1,524.1	1,560.6	1,593.4	1,622.4	1,651.0	1,725.8	1,779.9
Change in private inventories	62.9	77.0	43.3	66.6	49.2	14.5	36.7	72.7	29.9	73.0
Net exports of goods and services	-89.3	-151.5	-254.0	-169.0	-196.1	-240.4	-280.5	-299.1	-335.2	-360.0
Government consumption expenditures and gross investment	1,487.9	1,540.9	1,634.4	1,567.2	1,595.5	1,610.9	1,642.4	1,688.8	1,710.4	1,742.9
<i>Billions of 1996 dollars (quarterly data seasonally adjusted at annual rates)¹</i>										
Gross Domestic Product	8,159.5	8,515.7	8,875.8	8,654.5	8,730.0	8,783.2	8,905.8	9,084.1	9,191.8	9,311.5
Gross National Product	8,168.1	8,515.1	8,868.3	8,649.3	8,726.0	8,776.7	8,895.4	9,075.0	9,187.7	9,304.1
Personal consumption expenditures	5,423.9	5,678.7	5,978.8	5,779.8	5,860.2	5,940.2	6,013.8	6,101.0	6,213.5	6,258.2
Durable goods	657.3	727.3	817.8	766.7	782.7	810.5	826.2	851.8	898.2	886.7
Nondurable goods	1,619.9	1,684.8	1,779.4	1,716.0	1,748.5	1,765.0	1,786.1	1,818.1	1,844.8	1,860.5
Food	794.5	812.8	845.9	827.0	832.7	838.0	846.7	866.0	872.2	876.6
Clothing and shoes	271.6	292.2	318.5	298.7	313.3	316.5	322.1	322.1	337.7	342.3
Services	3,147.0	3,269.4	3,390.8	3,302.8	3,335.8	3,373.4	3,411.1	3,443.0	3,487.2	3,524.9
Gross private domestic investment	1,393.3	1,566.8	1,669.7	1,609.9	1,623.2	1,623.1	1,680.8	1,751.6	1,773.6	1,862.4
Fixed investment	1,328.6	1,485.3	1,621.4	1,539.7	1,574.0	1,607.1	1,637.8	1,666.6	1,730.9	1,776.4
Change in private inventories	63.8	80.2	45.3	69.4	48.1	13.1	39.1	80.9	36.6	79.3
Net exports of goods and services	-113.3	-221.0	-322.4	-244.9	-279.8	-314.6	-342.6	-352.5	-376.8	-408.6
Government consumption expenditures and gross investment	1,455.4	1,486.4	1,536.1	1,503.3	1,517.1	1,519.9	1,537.8	1,569.5	1,565.1	1,583.9
GDP implicit price deflator (% change)	1.9	1.3	1.5	1.1	2.3	1.4	0.9	1.3	3.3	2.6
Disposable personal income (\$ bil.)	5,968.2	6,320.0	6,637.7	6,441.1	6,514.9	6,596.3	6,664.0	6,775.0	6,866.5	6,962.0
Disposable pers. income (1996 \$ bil.)	5,854.5	6,134.1	6,331.0	6,219.2	6,263.7	6,306.6	6,341.7	6,412.2	6,443.1	6,496.0
Per capita disposable pers. income (\$)	22,262	23,359	24,314	23,720	23,946	24,196	24,384	24,728	25,014	25,311
Per capita disp. pers. income (1996 \$)	21,838	22,672	23,191	22,903	23,022	23,133	23,203	23,404	23,472	23,617
U.S. resident population plus Armed Forces overseas (mil.) ²	268.0	270.5	272.9	271.5	272.0	272.5	273.2	273.9	274.4	275.0
Civilian population (mil.) ²	266.5	269.0	271.0	270.0	270.5	271.1	271.7	272.4	273.0	273.5
	Annual			1999		2000				
	1997	1998	1999	Jul	Feb	Mar	Apr	May	Jun	Jul
<i>Monthly data seasonally adjusted</i>										
Total industrial production (1992=100)	130.1	136.4	142.3	142.0	147.2	148.4	149.3	150.2	150.7	151.6
Leading economic indicators (1992=100)	103.9	105.5	105.2	105.6	106.0	106.1	106.1	106.0	105.9	105.8
Civilian employment (mil. persons) ³	129.6	131.5	133.5	133.4	135.4	135.2	135.7	134.7	135.2	134.7
Civilian unemployment rate (%) ³	4.9	4.5	4.2	4.3	4.1	4.1	3.9	4.1	4.0	4.0
Personal income (\$ bil. annual rate)	6,937.0	7,391.0	7,789.6	7,797.4	8,099.6	8,161.6	8,206.7	8,230.1	8,264.0	8,285.1
Money stock-M2 (daily avg.) (\$ bil.) ⁴	4,041.9	4,396.8	4,655.4	4,552.8	4,691.8	4,728.9	4,769.9	4,766.9	4,781.2	4,795.4
Three-month Treasury bill rate (%)	5.07	4.81	4.66	4.60	5.57	5.72	5.67	5.92	5.74	5.93
AAA corporate bond yield (Moody's) (%)	7.26	6.53	7.04	7.19	7.68	7.68	7.64	7.99	7.67	7.65
Total housing starts (1,000) ⁵	1,474.0	1,616.9	1,666.5	1,704	1,822	1,630	1,652	1,591	1,563	1,512
Business inventory/sales ratio ⁶	1.38	1.39	1.35	1.34	1.32	1.31	1.32	1.32	1.32	--
Sales of all retail stores (\$ bil.) ⁷	2,610.6	2,745.6	2,994.9	250.0	265.1	268.4	267.1	267.4	268.4	270.8
Nondurable goods stores (\$ bil.)	1,547.3	1,609.2	1,739.9	144.6	153.0	155.8	155.9	156.6	157.7	158.8
Food stores (\$ bil.)	423.7	435.4	458.3	38.0	39.1	39.6	40.2	40.1	40.4	40.5
Apparel and accessory stores (\$ bil.)	119.6	127.0	135.1	11.2	11.7	11.8	11.7	11.8	11.7	11.7
Eating and drinking places (\$ bil.)	254.1	266.4	285.4	23.7	24.7	25.4	25.4	25.3	25.4	25.7

-- = Not available. 1. In October 1999, 1996 dollars replaced 1992 dollars. 2. Population estimates based on 1990 census. 3. Data beginning January 1994 are not directly comparable with data for earlier periods because of a major redesign of the 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									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	<i>Real GDP, annual percent change</i>									
World	1.8	1.5	3.0	2.7	3.5	3.4	1.8	2.7	4.2	3.5
less U.S.	1.5	1.1	2.7	2.7	3.5	3.0	0.9	2.2	3.8	3.5
Developed economies	1.7	0.8	2.7	2.2	3.1	3.0	2.0	2.6	3.8	3.0
less U.S.	1.1	0.0	2.1	2.0	2.9	2.3	0.9	1.7	3.0	2.8
United States	3.1	2.7	4.0	2.7	3.6	4.4	4.4	4.2	5.2	3.5
Canada	0.9	2.3	4.7	2.8	1.5	4.4	3.3	4.5	4.7	2.8
Japan	1.0	0.3	0.7	1.4	5.2	1.6	-2.5	0.3	1.9	1.9
Australia	2.4	3.8	5.2	3.8	4.4	4.1	5.0	4.4	4.3	3.2
European Union	1.1	-0.5	2.7	2.3	1.6	2.5	2.7	2.3	3.5	3.3
Transition economies	-10.2	-6.0	-7.9	-1.1	-0.7	1.7	-1.3	2.7	4.9	2.7
Eastern Europe	-1.3	1.6	3.9	5.7	3.9	3.2	2.5	2.5	4.4	4.3
Poland	3.1	4.3	5.1	7.0	6.0	6.8	4.8	4.0	5.2	4.9
Former Soviet Union	-13.8	-9.6	-14.1	-5.4	-4.0	0.5	-4.2	2.8	5.3	1.4
Russia	-14.5	-8.7	-12.6	-4.1	-3.4	0.9	-4.6	3.3	6.0	1.2
Developing economies	5.3	5.8	6.3	5.2	5.8	5.4	1.2	3.3	5.8	5.7
Asia	7.7	8.0	8.8	8.3	7.5	6.0	0.4	6.2	7.2	6.6
East Asia	9.4	9.2	9.7	8.8	7.8	7.0	2.0	7.5	8.1	7.0
China	14.2	13.5	12.6	10.5	9.6	8.8	7.8	7.1	8.3	8.5
Taiwan	7.5	7.0	7.1	6.4	6.1	6.7	4.6	5.4	6.5	5.9
Korea	5.4	5.5	8.2	8.9	6.7	5.0	-6.7	10.7	8.4	5.3
Southeast Asia	5.6	7.7	7.9	8.1	7.1	4.7	-6.1	3.5	5.4	5.7
Indonesia	7.2	7.3	7.5	8.2	7.8	4.7	-13.2	0.7	4.0	6.3
Malaysia	7.8	8.3	9.2	9.5	8.6	7.8	-7.4	5.6	8.6	6.1
Philippines	0.3	2.1	4.4	4.7	5.8	5.2	-0.5	3.2	4.0	4.2
Thailand	8.1	8.4	8.9	8.8	5.5	-0.4	-10.2	4.2	5.2	6.4
South Asia	5.7	4.5	7.1	6.9	7.0	4.9	5.3	5.6	6.4	6.5
India	5.4	5.0	8.1	7.4	7.7	5.7	5.6	6.2	7.0	7.0
Pakistan	7.8	1.9	3.9	5.1	4.7	-0.4	3.7	3.0	4.0	4.5
Latin America	3.4	4.3	5.3	1.3	3.6	5.1	1.9	0.0	4.2	4.5
Mexico	3.6	1.9	4.5	-6.2	5.1	6.8	4.8	3.7	6.4	5.0
Caribbean/Central	8.0	4.7	4.0	3.2	3.6	5.8	6.1	3.3	4.0	4.7
South America	3.3	4.9	5.6	3.1	3.3	4.8	1.2	-0.9	3.6	4.4
Argentina	11.9	5.9	5.8	-2.8	5.5	8.1	3.9	-3.1	2.5	4.0
Brazil	-0.5	4.9	5.9	4.2	2.8	3.2	0.1	0.8	4.2	4.6
Colombia	3.9	5.4	5.8	5.2	2.0	2.8	0.6	-4.5	3.6	4.6
Venezuela	6.1	0.3	-2.3	3.7	-0.5	6.5	-0.7	-6.3	1.1	1.5
Middle East	4.7	3.9	-0.2	3.7	4.3	4.7	2.2	-1.4	4.3	4.8
Israel	5.6	5.6	6.9	7.0	4.6	2.2	1.9	2.1	5.8	4.4
Saudi Arabia	2.8	-0.6	0.5	0.5	1.4	1.9	2.3	-1.5	1.6	3.0
Turkey	6.4	8.7	-5.2	7.8	7.0	7.5	2.8	-4.9	7.1	7.8
Africa	0.2	1.0	3.2	2.9	5.2	2.8	3.1	2.6	4.3	4.2
North Africa	2.0	0.5	3.9	1.5	6.5	2.6	5.6	3.3	5.5	4.8
Egypt	4.4	2.9	3.9	4.7	5.0	5.5	5.6	3.4	5.6	5.6
Sub-Sahara	-1.1	1.4	2.6	3.9	4.3	2.9	1.3	2.1	3.4	3.7
South Africa	-2.1	1.2	3.2	3.1	4.2	2.5	0.5	1.2	3.0	3.6
	<i>Consumer Prices, annual percent change</i>									
Developed Economies	3.5	3.1	2.6	2.6	2.4	2.1	1.5	1.4	1.9	2.0
Transition Economies	788.9	634.3	273.3	133.5	42.4	27.3	21.8	43.7	19.5	14.2
Developing Economies	36.1	49.8	55.1	22.9	15.1	9.5	10.1	6.5	5.7	4.7
Asia	8.6	10.8	16.0	13.2	8.2	4.7	7.6	2.5	2.6	3.0
Latin America	109.1	202.6	202.5	34.4	21.4	13.0	9.8	8.8	7.7	6.4
Middle East	26.5	26.6	33.3	38.9	26.6	25.3	26.0	20.3	16.2	9.4
Africa	47.1	38.7	54.8	35.5	30.0	13.6	9.2	11.0	9.6	6.1

-- = Not available. The last 3 years are either estimates or forecasts. Sources: Oxford Economic Forecasting; International Financial Statistics, IMF.

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Farm Prices

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

	Annual			1999		2000				
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
<i>1990-92=100</i>										
Prices received										
All farm products	107	101	96	99	95	100	101	99	98	97
All crops	115	106	96	100	94	101	104	99	96	97
Food grains	128	103	91	87	86	86	86	84	78	78
Feed grains and hay	117	100	86	85	90	91	97	90	82	77
Cotton	112	107	85	87	79	76	78	77	81	82
Tobacco	104	104	103	94	103	90	--	--	--	95
Oil-bearing crops	131	107	83	78	88	89	92	88	81	78
Fruit and nuts, all	109	111	114	138	82	88	91	114	123	129
Commercial vegetables	118	121	108	105	106	140	135	117	118	118
Potatoes and dry beans	90	99	101	107	104	105	110	106	114	98
Livestock and products	98	97	95	98	96	100	99	100	100	97
Meat animals	92	79	83	85	95	99	98	97	96	92
Dairy products	102	119	110	116	91	91	92	93	97	96
Poultry and eggs	113	117	111	112	104	111	108	112	112	110
Prices paid										
Commodities and services, interest, taxes, and wage rates (PPITW)	118	115	115	115	119	119	120	120	120	119
Production items	119	113	112	111	115	116	116	116	116	116
Feed	125	110	100	97	102	102	105	104	100	97
Livestock and poultry	94	88	95	90	108	112	106	108	111	107
Seeds	119	122	121	121	121	124	124	124	124	124
Fertilizer	121	112	105	103	107	106	108	108	112	115
Agricultural chemicals	121	122	121	121	119	119	124	121	121	121
Fuels	106	84	93	106	129	125	124	132	130	129
Supplies and repairs	118	119	121	121	123	123	124	124	124	124
Autos and trucks	119	119	119	118	119	120	120	119	119	118
Farm machinery	128	132	136	136	138	138	139	139	139	139
Building material	118	118	120	121	122	122	122	121	121	121
Farm services	116	115	115	116	116	116	116	117	118	118
Rent	136	120	117	117	117	117	117	117	117	117
Interest payable per acre on farm real estate debt	105	104	106	106	110	110	110	110	110	110
Taxes payable per acre on farm real estate	115	119	120	120	123	123	123	123	123	123
Wage rates (seasonally adjusted)	123	129	135	131	140	140	140	140	136	136
Prod. items, interest, taxes & wage rates (PITW)	118	114	113	113	117	118	118	118	118	117
Ratio, prices received to prices paid (%)*	91	81	75	86	80	84	84	83	82	82
Prices received (1910-14=100)	678	643	607	628	604	638	644	632	623	615
Prices paid, etc. (parity index) (1910-14=100)	1,574	1,532	1,535	1,529	1,584	1,589	1,593	1,598	1,594	1,588
Parity ratio (1910-14=100) (%)*	43	38	36	41	38	40	40	40	39	39

-- = Not available. Values for the 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 are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://usda.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://www.usda.gov/nass>.

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

	Annual ¹			1999	2000					
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
Crops										
All wheat (\$/bu.)	3.38	2.65	2.55	2.53	2.59	2.57	2.59	2.50	2.32	2.30
Rice, rough (\$/cwt)	9.70	8.89	6.00	7.62	5.82	5.86	5.56	5.59	5.47	5.48
Corn (\$/bu.)	2.43	1.94	1.90	1.75	2.03	2.03	2.10	1.91	1.64	1.48
Sorghum (\$/cwt)	3.95	2.97	2.95	2.85	3.21	3.24	3.38	3.32	2.81	2.59
All hay, baled (\$/ton)	100.00	84.60	77.00	78.90	74.80	80.70	89.40	82.50	80.20	80.50
Soybeans (\$/bu.)	6.47	4.93	4.75	4.39	4.91	5.00	5.19	4.92	4.53	4.38
Cotton, upland (¢/lb.)	65.20	60.20	44.90	53.00	47.90	46.00	47.30	46.40	49.10	49.90
Potatoes (\$/cwt)	5.62	5.56	5.84	6.38	6.33	6.29	6.62	6.47	7.12	5.90
Lettuce (\$/cwt) ²	17.50	16.10	13.30	11.90	14.00	22.90	23.50	13.40	15.00	14.10
Tomatoes, fresh (\$/cwt) ²	31.70	35.20	25.90	25.70	30.00	40.50	27.40	24.70	23.50	28.60
Onions (\$/cwt)	12.60	13.80	9.78	13.40	6.67	16.60	16.60	14.80	17.40	14.60
Beans, dry edible (\$/cwt)	19.30	19.00	17.60	18.00	15.20	16.60	17.00	15.70	15.10	15.50
Apples for fresh use (¢/lb.)	22.10	17.30	21.20	22.70	20.50	19.70	18.20	16.10	16.20	19.50
Pears for fresh use (\$/ton)	276.00	291.00	294.00	184.00	313.00	269.00	204.00	220.00	270.00	280.00
Oranges, all uses (\$/box) ³	4.22	4.29	5.94	11.48	3.54	4.14	4.60	4.43	3.07	1.38
Grapefruit, all uses (\$/box) ³	1.93	2.00	3.22	7.45	3.63	2.82	2.51	5.27	6.14	5.63
Livestock										
Cattle, all beef (\$/cwt)	63.10	59.60	63.40	63.50	69.80	71.30	69.40	68.50	67.50	65.10
Calves (\$/cwt)	78.90	78.80	87.70	89.60	109.00	111.00	107.00	104.00	106.00	105.00
Hogs, all (\$/cwt)	52.90	34.40	30.30	36.20	41.80	47.30	48.50	48.60	48.50	44.40
Lambs (\$/cwt)	90.30	72.30	74.50	80.30	80.20	82.60	96.40	89.70	87.00	--
All milk, sold to plants (\$/cwt)	13.36	15.46	14.38	15.10	11.90	11.90	12.00	12.20	12.70	12.50
Milk, manuf. grade (\$/cwt)	12.17	14.24	12.86	15.30	10.10	10.20	10.10	10.30	10.70	10.60
Broilers, live (¢/lb.)	37.70	39.30	37.10	37.20	34.90	36.50	37.00	37.00	37.50	35.00
Eggs, all (¢/doz.) ⁴	70.30	66.80	62.70	60.80	57.40	65.50	52.00	62.90	57.20	68.10
Turkeys (¢/lb.)	39.90	38.00	40.80	43.00	38.20	39.80	40.40	41.60	41.90	42.90

-- = Not available. Values for the two most recent months are 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 are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://usda.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://www.usda.gov/nass>.

Producer & Consumer Prices

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

	Annual			1999	2000					
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
<i>1982-84=100</i>										
Consumer Price Index, all items	160.5	163.0	166.6	167.1	171.1	171.2	171.3	172.3	172.6	172.7
CPI, all items less food	161.1	163.6	167.0	167.7	171.9	172.0	172.1	173.2	173.5	173.4
All food	157.3	160.7	164.1	164.2	166.5	166.6	167.3	167.3	168.1	168.7
Food away from home	157.0	161.1	165.1	165.6	167.9	168.1	168.3	168.6	169.1	169.5
Food at home	158.1	161.1	164.2	164.1	166.4	166.5	167.5	167.3	168.3	168.9
Meats ¹	144.4	141.6	142.3	142.8	148.3	148.8	150.1	151.7	152.7	153.9
Beef and veal	136.8	136.5	139.2	138.8	145.7	147.0	148.0	149.4	149.5	150.4
Pork	155.9	148.5	145.9	147.6	153.8	153.5	155.5	157.5	159.9	162.1
Poultry	156.6	157.1	157.9	158.5	158.6	158.5	159.6	159.3	161.8	161.3
Fish and seafood	177.1	181.7	185.3	185.2	189.9	189.8	192.4	191.9	189.7	190.7
Eggs	140.0	135.4	128.1	130.8	127.1	129.5	124.1	125.9	125.5	130.5
Dairy and related products ²	145.5	150.8	159.6	156.5	159.1	160.6	159.6	159.5	160.5	161.0
Fats and oils ³	141.7	146.9	148.3	148.6	145.9	144.8	147.0	146.6	148.1	148.9
Fresh fruits	236.3	246.5	266.3	266.2	257.9	257.0	257.3	244.6	248.9	252.2
Fresh vegetables	194.6	215.8	209.3	204.8	212.1	213.6	219.1	217.7	216.7	217.3
Potatoes	174.2	185.2	193.1	212.1	197.9	194.9	200.4	201.7	208.3	210.7
Cereals and bakery products	177.6	181.1	185.0	184.9	186.1	187.2	188.6	187.7	189.6	189.9
Sugar and sweets	147.8	150.2	152.3	152.7	154.6	152.4	153.7	154.0	154.1	154.6
Nonalcoholic beverages ⁴	133.4	133.0	134.3	134.5	138.5	137.6	137.3	137.5	138.5	138.2
Apparel										
Footwear	127.6	128.0	125.7	123.8	124.7	126.7	126.1	123.9	120.3	120.7
Tobacco and smoking products	243.7	274.8	355.8	350.1	387.3	404.4	393.5	388.5	400.7	394.1
Alcoholic beverages	162.8	165.7	169.7	170.2	173.5	173.6	173.8	174.4	175.2	175.6

1. Beef, veal, lamb, pork, and processed meat. 2. Included butter through December '97. 3. Includes butter as of January 98. 4. Includes fruit juices as of January 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			1999		2000				
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
<i>1982=100</i>										
All commodities	127.6	124.4	125.5	126.9	130.8	130.7	131.6	133.3	133.2	132.9
Finished goods ¹	131.8	130.6	133.0	133.7	136.8	136.7	137.5	138.4	138.3	138.1
All foods ²	132.8	132.4	132.2	132.8	131.9	133.4	134.1	133.3	133.2	132.5
Consumer foods	134.5	134.3	135.1	135.9	136.0	137.3	138.0	137.3	137.4	136.9
Fresh fruits and melons	99.4	90.0	103.6	98.2	96.0	93.1	94.3	83.2	82.8	71.1
Fresh and dry vegetables	123.1	139.5	118.0	111.0	122.4	125.4	140.6	119.9	119.2	128.1
Dried and dehydrated fruits	124.9	124.4	121.2	120.5	122.4	122.6	122.6	122.6	122.6	122.6
Canned fruits and juices	137.6	134.4	137.8	137.9	140.1	139.9	140.3	140.4	139.9	139.8
Frozen fruits, juices and ades	117.2	116.1	123.0	119.8	123.4	123.2	123.0	122.9	121.8	120.7
Fresh veg. except potatoes	121.3	137.9	117.7	113.7	122.3	126.8	152.0	127.1	124.6	136.8
Canned vegetables and juices	120.1	121.5	120.9	120.9	121.2	120.9	121.2	120.8	121.2	120.5
Frozen vegetables	125.8	125.4	126.1	126.1	125.7	126.3	126.4	125.1	125.6	126.4
Potatoes	106.1	122.5	126.9	151.3	99.2	97.1	91.8	91.1	126.5	125.3
Eggs for fresh use (1991=100)	97.1	90.1	77.9	82.7	70.0	87.1	64.2	81.9	70.3	91.1
Bakery products	173.9	175.8	178.0	177.9	180.6	181.1	181.4	181.6	182.8	182.5
Meats	111.6	101.4	104.6	108.4	112.4	115.3	119.1	118.7	118.1	114.9
Beef and veal	102.8	99.5	106.3	110.2	111.2	114.4	118.6	117.6	114.6	111.9
Pork	123.1	96.6	96.0	102.1	111.7	116.0	120.5	120.5	123.1	116.9
Processed poultry	117.4	120.7	114.0	113.7	110.9	111.8	110.3	111.6	111.5	113.3
Unprocessed and packaged fish	178.1	183.0	190.9	189.0	198.3	211.2	201.8	195.0	196.2	200.9
Dairy products	128.1	138.1	139.2	139.9	131.0	132.3	133.1	134.4	136.3	134.9
Processed fruits and vegetables	126.4	125.8	128.1	127.7	129.1	129.0	128.8	128.5	128.4	127.9
Shortening and cooking oil	137.8	143.4	--	--	--	--	--	--	--	--
Soft drinks	133.2	134.8	137.9	138.5	143.8	144.4	145.0	145.0	144.8	144.8
Finished consumer goods less foods	128.2	126.4	130.5	131.9	136.8	136.0	137.2	139.2	139.0	139.0
Alcoholic beverages	135.1	135.2	136.7	136.6	138.0	137.3	138.4	137.6	138.2	137.6
Apparel	125.7	126.6	127.1	127.0	127.6	127.3	127.1	127.0	127.1	126.7
Footwear	143.7	144.7	144.5	144.6	144.8	144.9	145.1	145.0	144.9	145.1
Tobacco products	248.9	283.4	374.0	363.9	398.9	392.7	398.8	393.2	393.4	402.4
Intermediate materials ³	125.6	123.0	123.2	124.6	127.8	128.0	128.3	129.7	130.1	129.9
Materials for food manufacturing	123.2	123.1	120.8	121.1	118.1	119.6	120.6	120.7	120.5	119.1
Flour	118.7	109.2	104.3	106.1	102.6	101.9	101.9	104.0	102.4	103.1
Refined sugar ⁴	123.6	119.8	121.0	122.0	113.2	111.6	110.6	111.3	112.0	109.7
Crude vegetable oils	116.6	131.1	90.2	85.2	80.2	84.0	83.1	78.3	72.6	67.0
Crude materials ⁵	111.1	96.7	98.2	103.1	112.9	111.3	115.4	121.9	120.8	119.2
Foodstuffs and feedstuffs	112.2	103.8	98.7	100.1	101.4	103.4	104.6	101.8	99.4	95.4
Fruits and vegetables and nuts ⁶	115.5	117.2	117.4	112.1	111.9	111.4	118.1	103.4	102.9	99.6
Grains	111.2	93.4	80.1	80.9	85.9	82.6	85.8	78.6	71.0	66.8
Slaughter livestock	96.3	82.3	86.4	88.6	98.3	102.3	102.5	100.4	97.9	92.8
Slaughter poultry, live	131.0	141.4	129.9	126.3	117.8	121.0	123.0	124.2	126.5	119.6
Plant and animal fibers	117.0	110.4	86.5	82.7	97.6	86.2	94.5	90.8	86.9	96.7
Fluid milk	97.5	112.6	106.3	112.6	89.3	89.3	89.3	90.8	95.3	93.0
Oilseeds	140.8	114.4	90.8	88.8	98.3	98.0	102.4	97.0	90.9	87.4
Leaf tobacco	105.1	104.6	101.6	96.4	105.2	92.3	--	--	--	97.0
Raw cane sugar	116.8	117.2	113.7	115.2	99.9	102.5	102.0	105.1	97.0	94.7

-- = Not available. 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		1999		2000					
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
Market basket ¹										
Retail cost (1982-84=100)	159.7	163.1	167.3	167.1	168.0	168.5	170.1	169.7	170.8	171.7
Farm value (1982-84=100)	106.2	103.3	98.3	98.7	94.6	96.6	95.8	95.9	96.0	97.1
Farm-retail spread (1982-84=100)	188.6	195.4	204.5	203.9	207.5	207.3	210.1	209.5	211.1	211.9
Farm value-retail cost (%)	23.3	22.2	20.6	20.7	19.7	20.1	19.7	19.8	19.7	19.8
Meat products										
Retail cost (1982-84=100)	144.4	141.6	142.3	142.8	145.7	147.0	150.1	151.7	152.7	153.9
Farm value (1982-84=100)	101.2	84.8	81.6	83.8	86.9	86.1	87.4	87.5	88.9	89.4
Farm-retail spread (1982-84=100)	188.6	200.0	204.7	203.3	206.1	209.5	214.4	217.6	218.1	220.1
Farm value-retail cost (%)	35.5	30.3	29.0	29.7	30.2	29.7	29.5	29.2	29.5	29.4
Dairy products										
Retail cost (1982-84=100)	145.5	150.8	159.6	156.5	159.1	160.6	159.6	159.5	160.5	161.0
Farm value (1982-84=100)	98.0	113.0	107.9	107.4	95.0	95.3	96.0	96.1	101.7	99.5
Farm-retail spread (1982-84=100)	189.3	185.6	207.2	201.8	218.2	220.8	218.3	217.9	214.7	217.7
Farm value-retail cost (%)	32.3	36.0	32.4	32.9	28.7	28.5	28.9	28.9	30.4	29.7
Poultry										
Retail cost (1982-84=100)	156.6	157.1	157.9	158.5	158.6	158.5	159.6	159.3	161.8	161.3
Farm value (1982-84=100)	120.6	126.1	119.0	119.0	113.1	118.2	119.8	120.4	121.9	115.6
Farm-retail spread (1982-84=100)	198.1	192.9	202.7	204	211	204.9	205.4	204.1	207.7	213.9
Farm value-retail cost (%)	41.2	42.9	40.3	40.2	38.2	39.9	40.2	40.5	40.3	38.4
Eggs										
Retail cost (1982-84=100)	140.0	137.1	128.1	130.8	127.1	129.5	124.1	125.9	125.5	130.5
Farm value (1982-84=100)	99.3	89.6	74.9	72.2	65.6	82.0	54.0	75.8	64.3	87.1
Farm-retail spread (1982-84=100)	213.0	222.5	223.7	236.1	237.5	214.9	250.1	215.9	235.5	208.4
Farm value-retail cost (%)	45.6	42.0	37.6	35.5	33.2	40.7	27.9	38.7	32.9	42.9
Cereal and bakery products										
Retail cost (1982-84=100)	177.6	181.1	185.0	184.9	186.1	187.2	188.6	187.7	189.6	189.9
Farm value (1982-84=100)	107.7	94.4	82.5	81.8	75.7	76.5	75.5	74.3	70.0	70.0
Farm-retail spread (1982-84=100)	187.4	193.2	199.2	199.3	201.5	202.7	204.4	203.5	206.3	206.6
Farm value-retail cost (%)	7.4	6.4	5.5	5.4	5.0	5.0	4.9	4.8	4.5	4.5
Fresh fruit										
Retail cost (1982-84=100)	245.1	258.2	294.3	294.2	283.0	282.2	282.7	267.8	272.2	277.7
Farm value (1982-84=100)	137.0	141.3	153.7	157.1	149.9	150.1	132.8	131.8	114.6	134.0
Farm-retail spread (1982-84=100)	295.0	312.2	359.3	357.5	344.5	343.2	351.9	330.6	345.0	344.0
Farm value-retail cost (%)	17.7	17.3	16.5	16.9	16.7	16.8	14.8	15.5	13.3	15.2
Fresh vegetables										
Retail cost (1982-84=100)	194.6	215.8	209.3	204.8	212.1	213.6	219.1	217.7	216.7	217.3
Farm value (1982-84=100)	118.7	124.5	118.1	113.5	109.4	126.0	136.0	125.7	127.0	131.3
Farm-retail spread (1982-84=100)	233.6	262.7	256.2	251.7	264.9	258.6	261.8	265.0	262.8	261.5
Farm value-retail cost (%)	20.7	19.6	19.2	18.8	17.5	20.0	21.1	19.6	19.9	20.5
Processed fruits and vegetables										
Retail cost (1982-84=100)	147.9	150.6	154.8	156.5	152.4	151.7	153.7	154	154.5	155.3
Farm value (1982-84=100)	115.9	115.1	113.5	114.5	111.3	111.9	111.6	110.5	110.5	110.2
Farm-retail spread (1982-84=100)	157.9	161.7	167.7	169.6	165.2	164.1	166.8	167.6	168.2	169.4
Farm value-retail cost (%)	18.6	18.2	17.4	17.4	17.4	17.5	17.3	17.1	17.0	16.9
Fats and oils										
Retail cost (1982-84=100)	141.7	146.9	148.3	148.6	145.9	144.8	147.0	146.6	148.1	148.9
Farm value (1982-84=100)	109.4	118.9	89.0	80.8	86.5	88.4	85.8	82.0	78.3	76.1
Farm-retail spread (1982-84=100)	153.6	157.2	170.0	173.5	167.8	165.5	169.5	170.4	173.8	175.7
Farm value-retail cost (%)	20.8	21.8	16.2	14.6	15.9	16.4	15.7	15.0	14.2	13.7

See footnotes at end of table, next page.

Table 8—Farm-Retail Price Spreads (continued)

	Annual			1999		2000				
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
Beef, all fresh retail value (cents/lb.)	253.8	253.3	260.5	258.1	270.8	272.5	274.3	278.6	279.9	284.5
Beef, Choice										
Retail value (cents/lb.) ²	279.5	277.1	287.8	289.0	297.9	305.4	308.8	311.5	310.0	309.9
Wholesale value (cents/lb.) ³	158.2	153.8	171.6	175.8	183.3	191.0	193.8	190.7	179.6	172.6
Net farm value (cents/lb.) ⁴	137.2	130.8	141.1	140.4	154.2	158.9	153.2	149.2	144.7	138.5
Farm-retail spread (cents/lb.)	142.3	146.3	146.7	148.6	143.7	146.5	155.6	162.3	165.3	171.4
Wholesale-retail (cents/lb.) ⁵	121.3	123.3	116.2	113.2	114.6	114.4	115.0	120.8	130.4	137.3
Farm-wholesale (cents/lb.) ⁶	21.0	23.0	30.5	35.4	29.1	32.1	40.6	41.5	34.9	34.1
Farm value-retail value (%)	49.1	47.2	49.0	48.6	51.8	52.0	49.6	47.9	46.7	44.7
Pork										
Retail value (cents/lb.) ²	245.0	242.7	241.5	246.8	252.8	255.5	256.2	260.3	262.3	265.6
Wholesale value (cents/lb.) ³	123.1	97.3	99.0	107.7	112.6	118.6	119.7	122.1	123.1	117.3
Net farm value (cents/lb.) ⁴	95.3	61.2	60.4	68.8	77.4	88.4	89.4	91.7	90.0	80.8
Farm-retail spread (cents/lb.)	149.7	181.5	181.1	178.0	175.4	167.1	166.8	168.6	172.3	184.8
Wholesale-retail (cents/lb.) ⁵	121.9	145.4	142.5	139.1	140.2	136.9	136.5	138.2	139.2	148.3
Farm-wholesale (cents/lb.) ⁶	27.8	36.1	38.6	38.9	35.2	30.2	30.3	30.4	33.1	36.5
Farm value-retail value (%)	38.9	25.2	25.0	27.9	30.6	34.6	34.9	35.2	34.3	30.4

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 value and farm value, represents charges for assembling, processing, transporting and distributing. 2. Weighted-average value 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, William F. Hahn (202) 694-5175*

Table 9—Price Indexes of Food Marketing Costs

	Annual			1998		1999				2000	
	1997	1998	1999	IV	I	II	III	IV	I	II	
	1987=100*										
Labor—hourly earnings and benefits	474.3	490.4	503.3	494.6	498.6	503.5	504.2	506.7	508.2	513.7	
Processing	486.0	499.3	511.4	504.9	504.2	512.1	513.4	515.6	518.1	523.6	
Wholesaling	536.2	552.5	564.6	555.1	565.3	572.8	575.2	580.0	578.9	593.8	
Retailing	435.2	454.1	465.8	459.4	463.6	464.2	463.8	465.4	467.1	468.5	
Packaging and containers	390.3	395.5	399.4	391.9	390.3	396.4	403.0	407.7	410.3	410.6	
Paperboard boxes and containers	341.9	365.2	373.0	359.8	355.7	368.3	380.2	387.8	391.9	413.0	
Metal cans	491.0	487.9	486.6	486.6	486.6	486.6	486.6	486.6	489.5	440.1	
Paper bags and related products	441.9	432.9	440.9	428.5	425.6	435.7	446.3	455.8	457.3	472.4	
Plastic films and bottles	326.6	322.8	324.2	318.5	319.7	321.4	325.9	329.6	329.4	330.6	
Glass containers	447.4	446.8	447.1	447.3	447.8	447.8	447.0	445.8	450.1	451.1	
Metal foil	233.4	232.0	227.3	230.9	228.2	226.1	226.7	228.0	229.8	231.3	
Transportation services	430.0	428.3	394.0	425.0	393.5	394.2	394.2	394.2	392.3	393.2	
Advertising	609.4	624.5	623.7	626.2	622.2	622.9	623.9	625.6	633.6	635.0	
Fuel and power	668.5	619.7	651.5	601.6	586.6	627.3	681.1	711.9	816.5	822.2	
Electric	499.2	492.1	489.4	485.0	479.0	484.0	505.9	488.5	477.2	487.0	
Petroleum	616.7	457.0	565.9	423.3	388.4	504.0	613.2	758.1	1,114.0	1,102.2	
Natural gas	1,214.0	1,239.4	1,235.6	1,217.7	1,206.3	1,222.8	1,272.7	1,240.4	1,235.3	1,259.8	
Communications, water and sewage	302.8	307.6	309.3	308.5	309.3	308.5	308.9	310.6	310.3	307.8	
Rent	265.6	260.5	256.9	258.8	257.5	257.3	256.4	256.4	256.8	256.8	
Maintenance and repair	514.9	529.3	541.6	535.1	537.9	540.7	542.5	545.3	552.2	558.3	
Business services	512.3	522.9	531.9	530.3	528.1	530.2	533.3	536.1	540.3	541.2	
Supplies	337.8	332.3	327.7	329.5	326.1	325.9	327.1	331.7	365.6	338.2	
Property taxes and insurance	580.1	598.3	619.7	606.1	609.6	615.2	622.8	631.3	639.8	647.4	
Interest, short-term	108.9	103.7	103.7	96.0	93.2	96.7	109.7	115.2	119.5	129.3	
Total marketing cost index	459.9	467.2	472.2	468.0	465.1	470.7	475.2	479.1	486.8	489.5	

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	Produc- tion ¹	Imports	Total supply	Exports	Ending stocks	Consumption		Conversion factor ³	Primary market price ⁴
							Total	Per capita ²		
	Million lbs. ⁵						Lbs.			\$/cwt
Beef										
1997	377	25,490	2,344	28,211	2,136	465	25,611	67	0.700	66.32
1998	465	25,760	2,643	28,868	2,171	393	26,305	68	0.700	61.48
1999	393	26,493	2,874	29,760	2,411	411	26,938	69	0.700	65.56
2000	411	26,881	3,018	30,310	2,529	390	27,391	70	0.700	68-69
2001	390	25,581	3,050	29,021	2,455	365	26,201	66	0.700	71-77
Pork										
1997	366	17,274	634	18,274	1,044	408	16,823	49	0.776	54.30
1998	408	19,011	705	20,124	1,230	584	18,309	53	0.776	34.72
1999	584	19,308	827	20,720	1,285	489	18,945	54	0.776	34.00
2000	489	18,899	999	20,387	1,253	500	18,634	53	0.776	44-45
2001	500	19,080	1,005	20,585	1,305	500	18,780	52	0.776	41-45
Veal ⁶										
1997	7	334	0	341	0	8	333	1	0.83	82
1998	8	262	0	270	0	5	265	1	0.83	82
1999	5	235	0	240	0	5	235	1	0.83	90
2000	5	226	0	231	0	4	227	1	0.83	105
2001	4	208	0	212	0	4	208	1	0.83	105
Lamb and mutton										
1997	9	260	83	352	6	14	332	1	0.89	88
1998	14	251	112	377	6	12	360	1	0.89	74
1999	12	248	113	372	5	9	358	1	0.89	76
2000	9	227	117	353	6	10	337	1	0.89	79
2001	10	220	114	344	4	10	330	1	0.89	80
Total red meat										
1997	759	43,358	3,061	47,178	3,185	894	43,099	118	--	--
1998	894	45,284	3,461	49,639	3,407	994	45,239	123	--	--
1999	994	46,284	3,813	51,092	3,701	914	46,476	125	--	--
2000	914	46,233	4,134	51,281	3,788	904	46,589	124	--	--
2001	904	45,089	4,169	50,162	3,764	879	45,519	120	--	--
										¢/lb
Broilers										
1997	641	27,041	5	27,687	4,664	607	22,416	72	0.859	59
1998	607	27,612	5	28,225	4,673	711	22,841	73	0.859	63
1999	711	29,468	4	30,183	4,866	796	24,521	77	0.859	58
2000	796	30,418	4	31,218	5,206	850	25,162	79	0.859	56
2001	850	31,670	4	32,524	5,200	880	26,444	82	0.859	54
Mature chickens										
1997	6	510	0	516	384	7	125	1	1.0	--
1998	7	525	0	533	426	6	101	1	1.0	--
1999	6	554	0	562	393	8	162	1	1.0	--
2000	8	543	0	552	334	5	212	1	1.0	--
2001	5	564	0	571	360	10	201	1	1.0	--
Turkeys										
1997	328	5,412	1	5,741	606	415	4,720	18	1.0	65
1998	415	5,215	0	5,630	446	304	4,880	18	1.0	62
1999	304	5,230	1	5,535	379	254	4,902	18	1.0	69
2000	254	5,382	1	5,637	426	225	4,986	18	1.0	71
2001	225	5,429	1	5,655	420	275	4,959	18	1.0	68
Total poultry										
1997	975	32,964	6	33,944	5,654	1,029	27,261	90	--	--
1998	1,029	33,352	6	34,387	5,545	1,022	27,821	91	--	--
1999	1,022	35,252	7	36,281	5,638	1,058	29,585	96	--	--
2000	1,058	36,343	7	37,408	5,967	1,080	30,360	97	--	--
2001	1,080	37,664	7	38,751	5,980	1,165	31,604	100	--	--
Red meat and poultry										
1997	1,734	76,321	3,067	81,123	8,839	1,923	70,360	208	--	--
1998	1,923	78,637	3,467	84,027	8,951	2,016	73,060	214	--	--
1999	2,016	81,537	3,820	87,372	9,340	1,972	76,061	220	--	--
2000	1,972	82,576	4,141	88,689	9,754	1,984	76,949	221	--	--
2001	1,984	82,753	4,176	88,913	9,744	2,044	77,123	221	--	--

-- = Not available. Values for the last 2 years 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	
				Million doz.					No.	¢/doz.
1994	10.7	6,177.6	3.7	6,192.0	187.6	805.4	14.9	5,184.1	238.7	67.3
1995	14.9	6,215.6	4.1	6,234.6	208.9	847.2	11.2	5,167.3	235.6	72.9
1996	11.2	6,350.7	5.4	6,367.3	253.1	863.8	8.5	5,241.8	236.8	88.2
1997	8.5	6,473.1	6.9	6,488.5	227.8	894.7	7.4	5,358.6	240.1	81.2
1998	7.4	6,657.9	5.8	6,671.2	218.8	921.8	8.4	5,522.2	244.9	75.8
1999	8.4	6,912.0	7.4	6,927.8	161.7	941.7	7.6	5,816.8	255.7	65.6
2000	7.6	7,062.1	7.0	7,076.7	162.8	942.9	6.5	5,964.5	259.9	64.5
2001	6.5	7,155.0	5.0	7,166.5	170.0	980.0	5.0	6,011.5	259.7	61.0

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				Total commer- cial supply	Commercial				CCC net removals	
		Farm use	Farm market- ings	Beg. stocks	Imports		CCC net re- movals	Ending stocks	Disap- pear- ance	All milk price ¹	Skim solids basis	Total solids basis ²
Million lbs. (milkfat basis)									\$/cwt	Billion lbs.		
1993	150.6	1.8	148.8	4.7	2.8	156.3	6.6	4.5	145.1	12.80	3.9	5.0
1994	153.6	1.7	151.9	4.5	2.9	159.3	4.8	4.3	150.3	12.97	3.7	4.2
1995	155.3	1.6	153.7	4.3	2.9	160.9	2.1	4.1	154.9	12.74	4.4	3.5
1996	154.0	1.5	153.5	4.1	2.9	159.5	0.1	4.7	154.7	14.74	0.7	0.5
1997	156.1	1.4	154.7	4.7	2.7	162.1	1.1	4.9	156.1	13.34	3.7	2.7
1998	157.4	1.4	156.1	4.9	4.6	165.5	0.4	5.3	159.9	15.42	4.0	2.6
1999	162.7	1.4	161.3	5.3	4.7	171.4	0.3	6.1	164.9	14.36	6.5	4.0
2000	167.7	1.3	166.4	6.1	4.2	176.7	0.8	5.5	170.4	12.45	8.6	5.4
2001	167.6	1.3	166.3	5.5	4.0	175.8	0.4	5.5	169.9	12.70	1.8	1.2

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			1999	2000					
	1997	1998	1999	Jul	Feb	Mar	Apr	May	Jun	Jul
Broilers										
Federally inspected slaughter certified (mil. lb.)	27,270.7	27,862.7	29,741.4	2,471.4	2,486.0	2,689.9	2,340.5	2,741.9	2,671.7	2,406.6
Wholesale price, 12-city (cents/lb.)	58.8	63.1	58.1	59.5	53.8	54.5	55.4	55.7	56.0	56.6
Price of grower feed (\$/ton) ¹	157.7	128.8	102.8	95.0	108.1	110.8	112.3	115.6	108.8	97.4
Broiler-feed price ratio ²	4.7	6.3	7.2	8	6.2	6.3	6.5	6.4	6.8	7.7
Stocks beginning of period (mil. lb.)	641.3	606.8	711.1	831.2	796.4	786.7	804.9	842.6	816.5	813.5
Broiler-type chicks hatched (mil.)	8,321.6	8,491.9	8,717.7	751.6	701.0	756.4	743.5	775.2	748.0	739.9
Turkeys										
Federally inspected slaughter certified (mil. lb.)	5,477.9	5,280.6	5,296.5	438.2	413.2	471.4	416.5	492.3	483.3	425.6
Wholesale price, Eastern U.S. 8-16 lb. young hens (cents/lb.)	64.9	62.2	69.0	71.6	61.8	65.4	67.4	69.2	70.4	71.6
Price of turkey grower feed (\$/ton) ¹	142.7	115.9	95	86.6	99.2	100.1	102.1	104.9	97.9	88.2
Turkey-feed price ratio ²	5.6	6.7	8.7	9.7	7.2	7.6	7.8	7.7	8.5	9.5
Stocks beginning of period (mil. lb.)	328.0	415.1	304.3	556.1	312.4	347.3	387.5	413.3	477.0	503.6
Poultz placed in U.S. (mil.)	321.5	297.8	297.3	26.8	24.2	25.7	25.1	26.3	27.0	27.1
Eggs										
Farm production (mil.)	77,677	79,941	82,939	6,903	6,659	7,235	7,013	7,105	6,799	7,056
Average number of layers (mil.)	304	313	323	320	330	331	329	326	325	326
Rate of lay (eggs per layer on farms)	255.3	255.4	256.8	21.6	20.2	21.9	21.3	21.8	20.9	21.7
Cartoned price, New York, grade A large (cents/doz.) ³	81.2	75.8	65.6	68.7	67.1	60.7	68.5	53.4	64.2	61.9
Price of laying feed (\$/ton) ¹	160.0	137.7	124.5	120.8	121.4	143.5	139.4	165.1	131.0	124.3
Egg-feed price ratio ²	8.8	9.8	9.8	9.9	11.3	8.0	9.4	6.3	9.6	9.2
Stocks, first of month										
Frozen (mil. doz.)	7.7	7.4	8.4	8.6	9.2	7.0	6.1	5.4	6.2	6.6
Replacement chicks hatched (mil.)	424.5	438.3	450.9	34.3	35.5	39.6	36.6	40.9	36.6	33.1

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			1999			2000			
	1997	1998	1999	Jul	Feb	Mar	Apr	May	Jun	Jul
Class III (BFP before 2000) 3.5% fat (\$/cwt.)	12.05	14.20	12.43	13.59	9.54	9.54	9.41	9.37	9.46	10.66
Wholesale prices										
Butter, Central States (cents/lb.) ¹	116.2	177.6	125.2	134.7	92.9	99.7	108.7	122.2	128.6	120.3
Am. cheese, Wis. assembly pt. (cents/lb.)	132.4	158.1	142.2	159.7	111.6	112.2	110.7	110.6	120.0	125.2
Nonfat dry milk (cents/lb.) ²	110.0	106.9	103.5	101.7	100.2	100.1	100.0	100.1	101.2	102.2
USDA net removals										
Total (mil. lb.) ³	1,090.3	365.6	343.5	19.8	99.3	86.3	77.7	106.9	78.0	54.5
Butter (mil. lb.)	38.4	6.3	3.7	0.0	2.6	1.6	0.9	0.8	0.7	0.2
Am. cheese (mil. lb.)	11.3	8.2	4.6	0.2	0.7	1.8	2.2	4.5	1.9	2.1
Nonfat dry milk (mil. lb.)	298.0	326.4	540.6	55.0	63.5	76.5	75.0	81.8	61.9	42.1
Milk										
Milk prod. 20 states (mil. lb.)	133,314	134,900	140,029	11,610	11,691	12,679	12,399	12,743	12,083	12,232
Milk per cow (lb.)	17,180	17,501	18,103	1,498	1,505	1,631	1,592	1,635	1,547	1,561
Number of milk cows (1,000)	7,760	7,708	7,735	7,751	7,766	7,774	7,787	7,795	7,810	7,834
U.S. milk production (mil. lb.) ⁴	156,091	157,348	162,711	13,450	13,596	14,739	14,378	14,771	14,001	14,110
Stocks, beginning ³										
Total (mil. lb.)	4,714	4,907	5,301	9,230	7,623	8,357	8,702	9,602	9,983	10,376
Commercial (mil. lb.)	4,704	4,889	5,274	9,191	7,576	8,300	8,638	9,520	9,883	10,255
Government (mil. lb.)	10	18	28	39	47	57	64	82	100	121
Imports, total (mil. lb.) ³	2,698	4,588	4,772	496	316	371	358	412	439	--
Commercial disappearance (mil. lb.) ³	156,118	159,779	164,911	13,564	12,984	14,573	13,667	14,600	13,882	--
Butter										
Production (mil. lb.)	1,151.2	1,168.0	1,275.0	84.8	130.3	122.5	115.4	111.2	91.8	87.1
Stocks, beginning (mil. lb.)	13.4	20.5	25.9	120.3	72.6	88.5	97.4	126.6	137.6	144.4
Commercial disappearance (mil. lb.)	1,108.7	1,222.5	1,308.4	88.2	113.8	113.7	86.7	102.7	90.9	--
American cheese										
Production (mil. lb.)	3,285.6	3,314.7	3,576.5	299.4	302.3	320.2	312.5	326.5	310.6	323.3
Stocks, beginning (mil. lb.)	379.6	410.3	407.6	531.3	480.1	515.3	525.0	547.9	554.6	570.3
Commercial disappearance (mil. lb.)	3,269.0	3,338.6	3,586.1	290.6	268.4	313.7	292.9	321.8	297.5	--
Other cheese										
Production (mil. lb.)	4,044.9	4,177.5	4,367.5	350.4	343.2	397.7	381.0	410.6	387.0	363.5
Stocks, beginning (mil. lb.)	107.3	70.0	109.5	197.2	187.9	193.0	201.7	200.7	208.8	212.0
Commercial disappearance (mil. lb.)	4,366.6	4,452.0	4,678.2	371.7	362.1	418.4	409.1	432.6	412.7	--
Nonfat dry milk										
Production (mil. lb.)	1,271.6	1,135.4	1,378.2	99.3	133.1	139.5	147.0	137.9	128.3	122.1
Stocks, beginning (mil. lb.)	71.1	103.3	56.9	161.9	146.2	173.4	167.9	197.4	197.0	170.7
Commercial disappearance (mil. lb.)	894.1	866.9	791.1	63.7	43.1	69.2	42.8	57.1	93.1	--
Frozen dessert										
Production (mil. gal.) ⁵	1,290.0	1,324.3	1,311.8	132.8	98.6	120.4	117.2	127.3	133.8	127.1

-- = Not available. Quarterly values for latest year are preliminary. 1. Grade AA Chicago before June 1998. 2. Prices paid f.o.b. Central States production area. 3. Milk equivalent, fat basis. 4. Monthly data ERS estimates. 5. Hard ice cream, ice milk, and hard sherbet.

Information contact: LaVerne Williams (202) 694-5190

Table 15—Wool

	Annual			1998		1999			2000	
	1997	1998	1999	IV	I	II	III	IV	I	II
U.S. wool price (¢/lb.) ¹	238	162	110	115	115	116	110	98	97	120
Imported wool price (¢/lb.) ²	206	164	136	141	146	142	133	125	133	139
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	130,386	98,373	65,468	17,530	17,294	16,815	15,793	13,633	17,142	15,775
Carpet wool (1,000 lb.)	13,576	16,331	15,017	4,388	4,220	3,581	3,183	2,966	3,784	3,327

-- = Not available. 1. Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" and up. 2. Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10 cents.

Information contact: Mae Dean Johnson (202) 694-5299

Table 16—Meat Animals

	Annual		1999		2000					
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
Cattle on feed (7 states, 1000+ head capacity)										
Number on feed (1,000 head) ¹	8,943	9,455	9,021	7,889	9,695	9,573	9,361	9,411	8,959	8,812
Placed on feed (1,000 head)	20,765	19,697	21,446	2,085	1,716	1,450	1,998	1,413	1,674	2,091
Marketings (1,000 head)	19,552	19,440	20,124	1,747	1,764	1,591	1,863	1,828	1,784	1,885
Other disappearance (1,000 head)	701	691	676	42	74	71	85	37	37	36
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, 1,100-1,300 lb.										
Texas	65.99	61.75	65.89	65.29	71.74	73.13	71.28	69.41	67.22	65.02
Neb. direct	66.32	61.48	65.65	65.26	71.74	73.52	71.66	69.59	66.46	64.69
Boning utility cows, Sioux Falls	34.27	36.20	38.40	39.60	41.58	43.81	43.50	45.38	43.88	43.00
Feeder steers										
Medium no. 1, Oklahoma City										
600-650 lb.	81.34	77.70	82.64	81.85	98.96	95.47	95.03	95.23	98.07	94.07
750-800 lb.	76.19	71.80	76.39	77.04	83.84	84.28	83.42	86.71	89.25	85.85
Slaughter hogs										
Barrows and gilts, 51-52 percent lean										
National Base converted to live equal.	54.30	34.72	34.02	38.56	43.52	49.59	50.21	51.48	50.45	45.35
Sows, Iowa, S.MN 1-2 300-400 lb.	40.24	20.29	19.26	18.65	26.86	30.33	33.17	33.70	32.31	32.55
Slaughter sheep and lambs										
Lambs, Choice, San Angelo	87.95	74.20	75.97	81.17	78.17	78.25	89.65	78.30	84.17	82.20
Ewes, Good, San Angelo	49.33	40.90	42.32	43.50	49.92	47.08 --		44.86	48.00	41.40
Feeder lambs										
Choice, San Angelo	104.43	79.59	81.05	78.83	99.58	99.33	100.45	91.14	93.25	91.70
Wholesale meat prices, Midwest										
Boxed beef cut-out value										
Choice, 700-800 lb.	102.75	98.60	111.55	114.26	118.25	123.97	126.00	123.85	115.60	110.33
Select, 700-800 lb.	96.15	92.19	101.99	104.62	112.56	115.40	111.19	110.16	106.87	104.62
Canner and cutter cow beef	64.50	61.49	66.66	70.15	72.67	74.38	73.60	74.20	75.33	73.04
Pork cutout	70.87	53.08	53.45	61.27	63.62	68.92	68.49	70.07	70.45	65.69
Pork loins, bone-in, 1/4 " trim, 14-19 lb.	128.75	102.04	100.25	111.45	110.06	127.48	115.38	132.53	131.73	120.45
Pork bellies, 12-14 lb.	73.91	52.38	57.43	67.29	85.00	93.70	97.85	91.99	90.38	75.64
Hams, bone-in, trimmed, 20-23 lb.	--	--	47.90	52.10	49.31	48.84	53.36	54.43	60.07	60.99
All fresh beef retail price	253.77	253.28	260.50	258.10	270.80	272.50	274.30	278.60	279.90	284.50
Commercial slaughter (1,000 head) ²										
Cattle	36,318	35,465	36,150	3,150	3,131	2,782	3,176	3,237	2,962	--
Steers	17,529	17,428	17,936	1,600	1,526	1,409	1,647	1,678	1,600	--
Heifers	11,528	11,448	11,866	1,020	1,077	923	1,006	1,040	917	--
Cows	6,564	5,983	5,708	469	472	402	467	463	396	--
Bull and stags	696	606	639	61	56	48	56	56	49	--
Calves	1,575	1,458	1,484	118	103	81	92	95	99	--
Sheep and lambs	3,911	3,911	3,698	296	344	345	259	260	243	--
Hogs	91,960	101,029	101,544	8,404	8,811	7,210	7,945	7,950	7,356	--
Barrows and gilts	88,409	97,030	97,738	8,062	8,516	6,963	7,664	7,652	7,083	--
Commercial production (mil. lb.)										
Beef	25,384	25,653	25,656	2,307	2,300	2,026	2,302	2,369	2,202	--
Veal	324	252	250	20	20	17	19	19	18	--
Lamb and mutton	257	248	247	19	24	23	17	17	16	--
Pork	17,244	18,981	18,981	1,565	1,700	1,394	1,540	1,536	1,408	--
	Annual			1999				2000		
	1997	1998	1999	I	II	III	IV	I	II	III
Hogs and pigs (U.S.) ³										
Inventory (1,000 head) ¹	56,124	61,158	62,206	62,206	60,191	60,896	60,776	59,337	58,137	59,397
Breeding (1,000 head) ¹	6,578	6,957	6,682	6,682	6,527	6,515	6,301	6,244	6,205	6,234
Market (1,000 head) ¹	49,546	54,200	55,523	55,523	53,663	54,380	54,474	53,094	51,933	53,164
Farrowings (1,000 head)	11,479	12,061	11,666	2,891	2,986	2,920	2,844	2,819	2,905	2,854
Pig crop (1,000 head)	99,584	105,004	102,569	25,247	26,270	25,860	24,972	24,777	25,831	--
Cattle on Feed, 7 states (1,000 head) ⁴										
Steers and steer calves	5,410	5,803	5,432	5,432	5,341	4,849	5,286	5,768	5,736	5,326
Heifers and heifer calves	3,455	3,615	3,552	3,552	3,527	3,302	3,479	3,942	3,800	3,602
Cows and bulls	78	59	37	37	31	44	28	42	37	31

-- = 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								\$/bu.
Wheat												
1996/97	--	75.1	62.8	36.3	2,277	2,746	308	993	1,002	2,302	444	4.30
1997/98	--	70.4	62.8	39.5	2,481	3,020	251	1,007	1,040	2,298	722	3.38
1998/99	--	65.8	59.0	43.2	2,547	3,373	394	990	1,042	2,427	946	2.65
1999/00*	--	62.8	53.9	42.7	2,302	3,343	286	1,017	1,090	2,393	950	2.48
2000/01*	--	62.9	54.4	42.3	2,302	3,352	225	1,026	1,125	2,376	976	2.25-2.75
	Mil. acres			Lb./acre								\$/cwt
Rice⁶												
1996/97	--	2.8	2.8	6,120.0	171.6	207.1	--	6/ 102.6	77.3	179.9	27.2	9.96
1997/98	--	3.1	3.1	5,897.0	183.0	219.4	--	6/ 104.6	87.0	191.5	27.9	9.70
1998/99	--	3.3	3.3	5,663.0	184.4	222.9	--	6/ 115.5	85.3	200.8	22.1	8.89
1999/00*	--	3.5	3.5	5,866.0	206.0	238.4	--	6/ 121.8	89.0	210.8	27.5	6.11
2000/01*	--	3.1	3.1	6,212.0	191.6	229.6	--	6/ 122.9	80.0	202.9	26.7	5.50-6.50
	Mil. acres			Bu./acre								\$/bu.
Corn												
1996/97	--	79.2	72.6	127.1	9,233	9,672	5,277	1,714	1,797	8,789	883	2.71
1997/98	--	79.5	72.7	126.7	9,207	10,099	5,482	1,805	1,504	8,791	1,308	2.43
1998/99	--	80.2	72.6	134.4	9,759	11,085	5,471	1,846	1,981	9,298	1,787	1.94
1999/00*	--	77.4	70.5	133.8	9,437	11,239	5,625	1,920	1,925	9,470	1,769	1.80
2000/01*	--	79.6	73.1	141.8	10,362	12,142	5,750	1,975	2,175	9,900	2,242	1.50-1.90
	Mil. acres			Bu./acre								\$/bu.
Sorghum												
1996/97	--	13.1	11.8	67.3	795	814	516	45	205	766	47	2.34
1997/98	--	10.1	9.2	69.2	634	681	365	55	212	632	49	2.21
1998/99	--	9.6	7.7	67.3	520	569	262	45	197	504	65	1.66
1999/00*	--	9.3	8.5	69.7	595	660	290	55	250	595	65	1.55
2000/01*	--	9.0	8.3	62.1	516	581	245	50	220	515	66	1.30-1.70
	Mil. acres			Bu./acre								\$/bu.
Barley												
1996/97	--	7.1	6.7	58.5	392	529	217	172	31	419	109	2.74
1997/98	--	6.7	6.2	58.1	360	510	144	172	74	390	119	2.38
1998/99	--	6.3	5.9	60.0	352	501	161	170	28	360	142	1.98
1999/00*	--	5.2	4.8	59.2	282	451	137	172	30	339	112	2.13
2000/01*	--	5.7	5.2	59.2	310	452	140	172	35	347	105	1.80-2.20
	Mil. acres			Bu./acre								\$/bu.
Oats												
1996/97	--	4.6	2.7	57.7	153	317	172	76	3	250	67	1.96
1997/98	--	5.1	2.8	59.5	167	332	185	72	2	258	74	1.60
1998/99	--	4.9	2.8	60.2	166	348	196	69	2	266	81	1.10
1999/00*	--	4.7	2.5	59.6	146	326	180	68	2	250	76	1.12
2000/01*	--	4.5	2.5	62.3	153	329	180	68	2	250	79	0.95-1.35
	Mil. acres			Bu./acre								\$/bu.
Soybeans⁷												
1996/97	--	62.6	61.6	35.3	2,177	2,516	112	1,370	851	2,333	183	6.72
1997/98	--	70.0	69.1	38.9	2,689	2,826	156	1,597	873	2,626	200	6.47
1998/99	--	72.0	70.4	38.9	2,741	2,944	201	1,590	805	2,595	348	4.93
1999/00*	--	73.8	72.5	36.5	2,643	2,994	170	1,580	980	2,730	265	4.65
2000/01*	--	74.5	73.5	39.5	2,900	3,167	172	1,630	1,000	2,802	365	4.35-5.15
												¢/lb.
Soybean oil												
1996/97	--	--	--	--	15,752	17,821	--	14,263	2,037	16,300	1,520	22.50
1997/98	--	--	--	--	18,143	19,723	--	15,262	3,079	18,341	1,382	25.84
1998/99	--	--	--	--	18,081	19,546	--	15,655	2,371	18,027	1,520	19.90
1999/00*	--	--	--	--	17,855	19,455	--	16,200	1,375	17,575	1,880	15.70
2000/01*	--	--	--	--	18,500	20,470	--	16,650	1,800	18,450	2,020	15.00-18.00
												\$/ton ⁸
Soybean meal												
1996/97	--	--	--	--	34,210	34,524	--	27,320	6,994	34,314	210	270.9
1997/98	--	--	--	--	38,176	38,443	--	28,895	9,329	38,225	218	185.5
1998/99	--	--	--	--	37,792	38,109	--	30,657	7,122	37,779	330	138.5
1999/00*	--	--	--	--	37,595	37,975	--	30,600	7,100	37,700	275	167.0
2000/01*	--	--	--	--	38,735	39,075	--	31,400	7,400	38,800	275	155-180

See footnotes at end of table, next page

Table 17—Supply & Utilization (continued)

	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			Lb./acre				Mil. Bales				¢/lb.
Cotton ⁹												
1996/97	1.7	14.7	12.9	705	18.9	22.0	--	11.1	6.9	18.0	4.0	69.3
1997/98	0.3	13.9	13.4	673	18.8	22.8	--	11.3	7.5	18.8	3.9	65.2
1998/99	--	13.4	10.7	625	13.9	18.2	--	10.4	4.3	14.7	3.9	60.2
1999/00*	--	14.9	13.4	607	17.0	21.0	--	10.2	6.8	17.0	4.0	45.0
2000/01*	--	15.5	14.1	622	18.3	22.3	--	10.2	7.9	18.1	4.2	--

-- = Not available or not applicable. *September 12, 2000 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 protein, 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			1999			2000			
	1997/98	1998/99	1999/00	Jul	Feb	Mar	Apr	May	Jun	Jul
Wheat, no. 1 HRW, Kansas City (\$/bu.) ²	3.71	3.08	--	2.68	2.94	2.91	2.84	2.95	3.07	2.97
Wheat, DNS, Minneapolis (\$/bu.) ³	4.31	3.83	--	3.68	3.59	3.65	3.69	3.80	3.78	3.50
Rice, S.W. La. (\$/cwt) ⁴	18.92	16.79	--	14.91	12.69	12.63	12.28	11.88	11.47	11.43
Corn, no. 2 yellow, 30-day, Chicago (\$/bu.) ⁵	2.56	2.06	--	1.78	2.12	2.17	2.21	2.25	2.01	1.65
Sorghum, no. 2 yellow, Kansas City (\$/cwt) ⁵	4.11	3.29	--	2.92	3.28	3.51	3.53	3.75	3.18	2.71
Barley, feed, Duluth (\$/bu.)	1.90	--	--	--	--	--	--	--	--	--
Barley, malting Minneapolis (\$/bu.)	2.50	--	--	--	--	--	--	--	--	--
U.S. cotton price, SLM, 1-1/16 in. (¢/lb.) ⁶	67.79	60.12	--	49.23	54.29	57.67	53.76	58.31	54.97	55.13
Northern Europe prices cotton index (¢/lb.) ⁷	72.11	58.97	--	54.56	53.63	57.45	58.90	60.53	59.56	58.40
U.S. M 1-3/32 in. (¢/lb.) ⁸	77.98	74.08	--	--	60.94	64.70	64.31	68.88	--	--
Soybeans, no. 1 yellow, 30-day Chicago (\$/bu)	6.51	5.13	--	4.11	4.96	5.05	5.22	5.34	5.03	4.58
Soybean oil, crude, Decatur (¢/lb.)	25.84	19.90	--	15.29	15.63	16.21	15.63	16.74	16.74	14.69
Soybean meal, 48% protein, Decatur (\$/ton)	185.54	138.50	--	142.83	170.85	175.50	176.45	187.90	187.05	168.45

-- = 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 1998/99 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
					Mil. acres	Percent of base	\$/bu.	Mil. acres	Bu./acre	Percent
	\$/bu.									
Wheat										
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	--	--	2.58	--	--	--	0.663	78.9	34.50	--
1999/2000 ⁵	--	--	2.58	--	--	--	0.637	79.0	34.50	--
	\$/cwt								Cwt/acre	
Rice										
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	--	6.50	--	--	--	--	2.921	4.2	48.17	--
1999/2000 ⁵	--	6.50	--	--	--	--	2.820	4.2	48.15	--
	\$/bu.								Bu./acre	
Corn										
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	--	--	1.89	--	--	--	0.377	82.0	102.60	--
1999/2000 ⁵	--	--	1.89	--	--	--	0.363	81.9	102.60	--
	\$/bu.								Bu./acre	
Sorghum										
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	--	--	1.74	--	--	--	0.452	13.6	56.90	--
1999/2000 ⁵	--	--	1.74	--	--	--	0.435	13.7	56.90	--
	\$/bu.								Bu./acre	
Barley										
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	--	--	1.56	--	--	--	0.284	11.2	46.70	--
1999/2000 ⁵	--	--	1.59	--	--	--	0.271	11.2	46.60	--
	\$/bu.								Bu./acre	
Oats										
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	--	--	1.11	--	--	--	0.031	6.5	50.70	--
1999/2000 ⁵	--	--	1.13	--	--	--	0.030	6.5	50.60	--
	\$/bu.								Bu./acre	
Soybeans ⁸										
1995/96	--	--	4.92	--	--	--	--	--	--	--
1996/97	--	--	4.97	--	--	--	--	--	--	--
1997/98	--	--	5.26	--	--	--	--	--	--	--
1998/99	--	--	5.26	--	--	--	--	--	--	--
1999/2000	--	--	5.26	--	--	--	--	--	--	--
	¢/lb.								Lb./acre	
Upland cotton										
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	--	51.92	--	--	--	--	8.173	16.4	604.00	--
1999/2000 ⁵	--	51.92	--	--	--	--	7.880	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 program 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 program 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 Farm Act replaced target prices and deficiency payments with fixed annual payments to producers. Information contact: Brenda Chewning, Farm Service Agency (202) 720-8838

Table 20—Fruit

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Citrus ¹										
Production (1,000 tons)	10,860	11,285	12,452	15,274	14,561	15,799	15,712	17,271	17,770	13,702
Per capita consumpt. (lb.) ²	21.4	19.1	24.4	26.0	25.0	24.1	24.9	27.0	27.0	--
Noncitrus ³										
Production (1,000 tons)	15,640	15,740	17,124	16,554	17,339	16,348	16,103	18,363	16,509	17,119
Per capita consumpt. (lb.) ²	70.4	70.6	73.8	73.9	75.6	73.7	73.9	76.3	76.2	--
	1999		2000							
	Aug	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Grower prices										
Apples (¢/pound) ⁴	18.4	23.7	23.5	21.1	20.5	19.7	18.2	16.1	16.2	19.5
Pears (¢/pound) ⁴	16.10	20.70	20.70	19.30	15.65	13.45	10.20	11.00	13.50	14.00
Oranges (\$/box) ⁵	11.48	3.41	3.27	3.51	3.54	4.14	4.60	4.43	3.07	1.38
Grapefruit (\$/box) ⁵	7.45	3.71	2.40	3.64	3.63	2.82	2.51	1.29	6.14	5.63
Stocks, ending										
Fresh apples (mil. lb.)	103	4,653	4,017	3,231	2,465	1,891	1,293	832	412	129
Fresh pears (mil. lb.)	130	299	241	191	133	105	70	28	40	145
Frozen fruits (mil. lb.)	1,183	1,455	1,338	1,244	1,107	1,017	1,011	1,120	1,300	1,292
Frozen conc.orange juice (mil. single-strength gallons)	661	543	644	776	769	742	802	832	752	593

-- = 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

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Production ¹										
Total vegetables (1,000 cwt)	562,938	565,754	689,070	688,824	782,505	747,988	762,952	751,739	726,310	829,731
Fresh (1,000 cwt) ^{2,4}	254,039	242,733	389,597	387,330	412,880	393,398	409,317	427,183	416,785	448,939
Processed (tons) ^{3,4}	15,444,970	16,151,030	14,973,630	15,074,707	18,481,238	17,729,497	17,681,732	16,227,819	15,476,230	19,039,620
Mushrooms (1,000 lbs) ⁵	749,151	746,832	776,357	750,799	782,340	777,870	776,677	808,678	847,760	854,394
Potatoes (1,000 cwt)	402,110	417,622	425,367	430,349	469,425	445,099	499,254	467,091	475,771	478,109
Sweet potatoes (1,000 cwt)	12,594	11,203	12,005	11,027	13,380	12,821	13,216	13,327	12,382	12,234
Dry edible beans (1,000 cwt)	32,379	33,765	22,615	21,862	28,950	30,689	27,912	29,370	30,418	33,230
	1999		2000							
	Aug	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Shipments (1,000 cwt)										
Fresh	19,776	21,604	19,965	25,730	28,425	24,169	32,102	37,167	19,317	21,877
Iceberg lettuce	3,477	3,223	2,889	3,776	3,904	2,859	3,388	4,380	3,228	3,930
Tomatoes, all	3,570	3,673	3,642	4,463	4,553	3,845	4,020	4,272	2,497	3,095
Dry-bulb onions	3,594	3,642	3,232	3,910	3,895	3,364	3,707	3,809	3,140	4,314
Others ⁶	9,135	11,066	10,202	13,581	16,073	14,101	20,987	24,706	10,452	10,538
Potatoes, all	10,440	14,751	12,201	17,170	19,972	20,460	16,892	15,085	9,854	12,563
Sweet potatoes	186	438	205	349	311	337	183	228	145	187

-- = 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			1998	1999				2000	
	1997	1998	1999	IV	I	II	III	IV	I	II
Sugar										
Production ¹	7,418	7,891	9,083	3,959	2,636	1,031	749	4,667	2,681	922.2
Deliveries ¹	9,755	9,851	10,167	2,508	2,271	2,594	2,693	2,609	2,348	--
Stocks, ending ¹	3,377	3,423	3,855	3,422	4,219	3,184	1,639	3,855	4,551	3,498.0
Coffee										
Composite green price ²										
N.Y. (¢/lb.)	146.49	114.43	88.49	97.83	94.37	90.41	77.40	91.79	85.66	--
		Annual			1999				2000	
	1997	1998	1999	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Tobacco										
Avg. price to grower ³										
Flue-cured (\$/lb.)	1.73	1.76	1.7	0.0	1.82	1.8	0.0	0.0	0.0	0.0
Burley (\$/lb.)	1.91	1.90	1.9	1.63	0.0	1.90	1.91	1.90	1.9	1.8
Domestic taxable removals										
Cigarettes (bil.)	471.4	457.9	--	34.9	0.0	0.0	0.0	0.0	0.0	0.0
Large cigars (mil.) ⁴	3,552	3,721	--	332.7	0.0	0.0	0.0	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 and coffee, Fannye Jolly (202) 694-5249; tobacco, Tom Capehart (202) 694-5245

World Agriculture

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

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00 F	2000/01 F
	<i>Million mts</i>									
Wheat										
Area (hectares)	222.5	222.9	222.0	214.5	219.2	230.4	227.8	224.8	216.3	215.5
Production (metric tons)	542.9	562.4	558.7	524.1	538.5	582.8	609.7	588.6	585.9	583.2
Exports (metric tons) ¹	111.2	113.0	101.6	101.4	99.5	103.7	103.8	102.6	108.1	106.4
Consumption (metric tons) ²	555.5	550.3	561.6	547.5	548.8	577.3	584.4	590.4	595.7	596.7
Ending stocks (metric tons) ³	132.5	144.5	141.6	118.2	107.9	113.5	138.7	136.9	127.1	113.6
Coarse grains										
Area (hectares)	322.8	326.0	318.7	324.0	313.7	322.8	311.3	307.9	302.7	302.6
Production (metric tons)	810.7	871.8	798.9	871.1	802.8	908.5	884.9	889.8	877.1	881.7
Exports (metric tons) ¹	95.9	92.8	85.8	98.0	87.8	94.1	85.7	96.7	100.4	99.7
Consumption (metric tons) ²	810.1	843.4	838.7	858.3	839.2	872.8	873.3	867.0	880.4	885.1
Ending stocks (metric tons) ³	135.8	164.1	124.3	137.0	100.6	136.3	147.9	170.7	167.3	163.9
Rice, milled										
Area (hectares)	147.5	146.4	144.9	147.4	148.1	149.8	151.2	152.3	154.0	152.1
Production (metric tons)	354.7	355.7	355.4	364.5	371.4	380.4	386.8	393.9	402.9	397.5
Exports (metric tons) ¹	14.3	15.0	16.3	20.8	19.7	18.8	27.3	25.1	22.3	24.4
Consumption (metric tons) ²	356.7	357.7	358.1	366.6	371.4	379.5	383.3	388.7	399.8	401.2
Ending stocks (metric tons) ³	57.2	55.2	52.5	50.4	50.4	51.3	54.8	60.0	63.1	59.4
Total grains										
Area (hectares)	692.8	695.3	685.6	685.9	681.0	703.0	690.3	685.0	673.0	670.2
Production (metric tons)	1,708.3	1,789.9	1,713.0	1,759.7	1,712.7	1,871.7	1,881.4	1,872.3	1,865.9	1,862.4
Exports (metric tons) ¹	221.4	220.8	203.7	220.2	207.0	216.6	216.8	224.4	230.8	230.5
Consumption (metric tons) ²	1,722.3	1,751.4	1,758.4	1,772.4	1,759.4	1,829.6	1,841.0	1,846.1	1,875.9	1,883.0
Ending stocks (metric tons) ³	325.5	363.8	318.4	305.6	258.9	301.1	341.4	367.6	357.5	336.9
Oilseeds										
Crush (metric tons)	185.1	184.4	190.1	208.1	217.5	217.7	225.9	240.8	248.7	250.3
Production (metric tons)	224.3	227.5	229.4	261.9	258.9	261.4	286.5	294.1	298.6	304.8
Exports (metric tons)	37.6	38.2	38.7	44.1	44.3	49.6	54.0	54.6	63.8	60.5
Ending stocks (metric tons)	21.9	23.6	20.3	27.2	22.2	18.2	28.4	31.4	28.5	28.9
Meals										
Production (metric tons)	125.2	125.2	131.7	142.1	147.3	148.4	153.6	164.7	169.7	171.8
Exports (metric tons)	42.2	40.8	44.9	46.7	49.8	50.7	51.9	53.9	54.5	55.1
Oils										
Production (metric tons)	60.6	61.1	63.7	69.6	73.1	74.1	75.0	80.7	84.9	86.1
Exports (metric tons)	21.3	21.3	24.3	27.1	26.0	28.2	29.7	31.4	32.2	32.5
Cotton										
Area (hectares)	34.8	32.6	30.7	32.2	35.9	33.8	33.7	33.0	32.3	32.5
Production (bales)	95.8	82.5	77.1	86.0	93.1	89.6	91.6	84.7	86.8	86.7
Exports (bales)	28.5	25.5	26.8	28.4	27.8	26.9	26.7	23.7	27.3	27.4
Consumption (bales)	86.1	85.9	85.4	84.7	86.0	88.0	87.2	85.1	91.5	95.6
Ending stocks (bales)	37.4	34.7	26.8	29.8	36.6	40.1	43.5	44.8	39.9	34.4
	1991	1992	1993	1994	1995	1996	1997	1998	1999 F	2000 F
Red meat⁴										
Production (metric tons)	117.7	117.3	119.3	124.6	129.5	123.6	129.5	134.5	136.4	137.8
Consumption (metric tons)	116.1	115.7	118.3	123.6	127.7	120.7	126.7	131.7	134.2	135.6
Exports (metric tons) ¹	7.5	7.4	7.4	8.1	8.2	8.5	9.0	8.9	9.6	9.6
Poultry⁴										
Production (metric tons)	39.6	38.0	40.5	43.2	47.5	50.4	52.7	53.5	55.9	57.9
Consumption (metric tons)	38.4	37.0	39.4	42.0	47.0	49.7	51.9	52.5	55.0	57.1
Exports (metric tons) ¹	2.8	2.4	2.8	3.6	4.5	5.1	5.6	5.7	6.0	6.4
Dairy										
Milk production (metric tons) ⁵	377.6	378.4	377.6	378.4	380.7	379.8	380.8	383.1	385.8	390.5

-- = Not available. 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			1999		2000				
	1997	1998	1999	Aug	Mar	Apr	May	Jun	Jul	Aug
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	4.35	3.44	3.04	2.99	2.92	2.92	3.03	3.15	3.12	3.05
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.98	2.59	2.30	2.20	2.42	2.44	2.45	2.12	1.91	1.91
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.89	2.54	2.15	2.12	2.33	2.33	2.36	2.01	1.72	1.87
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	7.94	6.37	5.02	5.00	5.40	5.51	5.65	5.37	5.02	4.93
Soybean oil, Decatur (¢/lb.)	23.33	25.78	17.51	16.50	16.22	17.52	16.75	15.65	14.70	14.34
Soybean meal, Decatur (\$/ton)	266.70	162.74	141.52	141.69	175.50	177.53	189.34	177.45	163.38	157.48
Cotton, 7-market avg. spot (¢/lb.)	69.62	67.04	52.30	49.72	57.67	53.76	58.31	54.97	55.12	59.33
Tobacco, avg. price at auction (¢/lb.)	182.74	179.77	177.82	163.99	179.06	156.98	--	--	--	165.03
Rice, f.o.b., mill, Houston (\$/cwt)	20.88	18.95	16.99	16.48	15.00	14.85	14.48	14.38	14.53	14.50
Inedible tallow, Chicago (¢/lb.)	20.75	17.67	12.99	11.69	10.25	9.50	10.00	10.00	9.00	9.00
Import commodities										
Coffee, N.Y. spot (\$/lb.)	2.05	1.39	1.05	0.93	1.10	0.99	0.99	0.90	0.93	0.80
Rubber, N.Y. spot (¢/lb.)	55.40	40.57	36.66	33.63	38.16	37.80	37.76	37.07	36.65	37.82
Cocoa beans, N.Y. (\$/lb.)	0.69	0.72	0.47	0.43	0.38	0.36	0.37	0.38	0.38	0.35

-- = Not available. Information contacts: Jenny Gonzales (202) 694-5296, Mae Dean Johnson (202) 694-5299.

Table 25—Trade Balance

	Fiscal Year			1999		2000				
	1999	2000 P	2001 F	Jul	Feb	Mar	Apr	May	Jun	Jul
\$ million										
Exports										
Agricultural	49,102	50,500	51,500	3,718	4,382	4,668	3,917	4,022	4,058	3,834
Nonagricultural	586,652	--	--	45,341	51,251	58,200	53,683	54,235	58,183	50,741
Total ¹	635,754	--	--	49,059	55,633	62,868	57,600	58,257	62,241	54,575
Imports										
Agricultural	37,468	39,000	39,500	2,899	3,249	3,679	3,376	3,517	3,311	3,003
Nonagricultural	938,790	--	--	83,429	87,813	98,939	90,401	96,429	99,816	97,031
Total ²	976,258	--	--	86,328	91,062	102,618	93,777	99,946	103,127	100,034
Trade Balance										
Agricultural	11,634	11,500	12,000	819	1,133	989	541	505	747	831
Nonagricultural	-352,138	--	--	-38,088	-36,562	-40,739	-36,718	-42,194	-41,633	-46,290
Total	-340,504	--	--	-37,269	-35,429	-39,750	-36,177	-41,689	-40,886	-45,459

P = Projected. 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

See *Agricultural Outlook*, September 2000.

Table 27—U.S. Agricultural Exports & Imports

	Fiscal Year			Jul		Fiscal Year			Jul	
	1999	2000 E	2001 F	1999	2000	1999	2000 E	2001 F	1999	2000
\$ million										
Exports										
Animals, live	--	--	--	--	--	509	--	--	24	31
Meats and preps., excl. poultry (mt) ¹	2,061	1,900	1,800	179	197	4,460	5,000	5,100	386	442
Dairy products	--	--	--	--	--	897	1,000	900	71	80
Poultry meats (mt)	2,377	2,800	2,700	220	220	1,743	2,000	1,900	163	153
Fats, oils, and greases (mt)	1,395	1,200	1,200	135	94	561	--	--	48	31
Hides and skins, incl. furskins	--	--	--	--	--	1,108	1,200	1,200	94	137
Cattle hides, whole (no.)	17,845	--	--	1,562	1,986	844	--	--	75	110
Mink pelts (no.)	4,172	--	--	280	320	98	--	--	8	10
Grains and feeds (mt) ²	104,576	--	--	9,645	8,112	14,272	13,600	13,600	1,206	1,074
Wheat (mt) ³	28,806	27,000	29,000	3,008	2,246	3,648	3,500	3,700	350	280
Wheat flour (mt)	958	1,000	1,000	100	75	177	--	--	14	12
Rice (mt)	3,076	3,300	3,200	207	240	1,010	900	800	66	60
Feed grains, incl. products (mt) ⁴	58,398	53,700	60,200	5,244	4,436	5,821	5,200	5,200	502	412
Feeds and fodders (mt)	11,800	12,800	11,600	968	1,018	2,252	2,400	2,200	164	204
Other grain products (mt)	1,538	--	--	118	97	1,363	--	--	110	106
Fruits, nuts, and preps. (mt)	3,439	--	--	275	327	3,805	4,200	4,300	314	347
Fruit juices, incl.										
froz. (1,000 hectoliters)	12,317	--	--	1,103	1,043	735	--	--	63	64
Vegetables and preps.	--	--	--	--	--	4,245	2,900	3,000	334	352
Tobacco, unmanufactured (mt)	205	200	200	12	8	1,376	1,300	1,300	63	56
Cotton, excl. linters (mt) ⁵	884	1,500	1,800	72	104	1,309	1,800	2,600	99	136
Seeds (mt)	579	--	--	39	31	800	800	900	42	50
Sugar, cane or beet (mt)	158	--	--	9	6	56	--	--	4	3
Oilseeds and products (mt)	33,569	36,300	37,800	1,731	2,040	8,606	8,700	8,700	454	491
Oilseeds (mt)	--	--	--	--	--	--	--	--	--	--
Soybeans (mt)	22,974	26,700	27,500	1,002	1,368	4,748	5,200	5,000	197	267
Protein meal (mt)	6,726	--	--	497	428	1,101	--	--	78	82
Vegetable oils (mt)	2,642	--	--	165	163	1,815	--	--	110	95
Essential oils (mt)	47	--	--	4	5	507	--	--	45	52
Other	--	--	--	--	--	4,112	--	--	309	334
Total	--	--	--	--	--	49,102	50,500	51,500	3,718	3,834
Imports										
Animals, live	--	--	--	--	--	1,439	1,800	1,900	77	98
Meats and preps., excl. poultry (mt)	1,403	1,600	1,600	120	137	3,108	3,700	3,800	275	335
Beef and veal (mt)	943	--	--	85	93	2,047	--	--	187	219
Pork (mt)	337	--	--	25	32	721	--	--	56	85
Dairy products	--	--	--	--	--	1,572	1,700	1,800	141	136
Poultry and products	--	--	--	--	--	201	--	--	15	33
Fats, oils, and greases (mt)	90	--	--	10	9	63	--	--	6	6
Hides and skins, incl. furskins (mt)	--	--	--	--	--	146	--	--	9	10
Wool, unmanufactured (mt)	29	--	--	2	2	75	--	--	5	5
Grains and feeds	--	--	--	--	--	2,943	3,000	3,000	232	250
Fruits, nuts, and preps., excl. juices (mt) ⁶	8,171	8,500	8,600	613	649	4,619	5,400	5,500	336	319
Bananas and plantains (mt)	4,418	4,500	4,600	376	411	1,212	1,100	1,200	96	104
Fruit juices (1,000 hectoliters)	31,655	33,400	34,000	2,669	2,544	772	--	--	68	64
Vegetables and preps.	--	--	--	--	--	4,527	4,600	4,700	313	333
Tobacco, unmanufactured (mt)	217	200	200	10	12	742	600	600	24	35
Cotton, unmanufactured (mt)	144	--	--	20	4	150	--	--	21	1
Seeds (mt)	357	--	--	10	8	457	--	--	22	22
Nursery stock and cut flowers	--	--	--	--	--	1,076	1,200	1,200	57	66
Sugar, cane or beet (mt)	1,692	--	--	108	118	606	--	--	36	33
Oilseeds and products (mt)	3,899	3,900	3,800	309	422	2,022	1,900	1,800	170	168
Oilseeds (mt)	1,000	--	--	75	165	326	--	--	21	29
Protein meal (mt)	1,131	--	--	83	90	147	--	--	11	12
Vegetable oils (mt)	1,769	--	--	150	167	1,549	--	--	138	127
Beverages, excl. fruit										
juices (1,000 hectoliters)	--	--	--	--	--	4,258	--	--	394	424
Coffee, tea, cocoa, spices (mt)	2,520	--	--	207	216	5,306	--	--	416	396
Coffee, incl. products (mt)	1,294	1,400	1,400	94	114	2,967	2,900	3,000	219	221
Cocoa beans and products (mt)	865	1,100	1,100	77	70	1,531	1,500	1,500	115	101
Rubber and allied gums (mt)	1,148	1,300	1,300	78	69	739	900	900	47	46
Other	--	--	--	--	--	2,645	--	--	234	225
Total	--	--	--	--	--	37,468	39,000	39,500	2,899	3,003

E = Estimate. F = Forecast. -- = Not available. Projections are fiscal years (Oct.1 through Sept. 30) and are from Outlook for U.S. Agricultural Exports. 1998 and 1999 data are from *Foreign Agricultural Trade of the U.S.* 1. Projection includes beef, pork, and variety meat. 2. Projection includes pulses. 3. Value projection includes wheat flour. 4. Projection excludes grain products. 5. Projection includes linters. 6. Value projection includes juice.

Information Contact: Mary Fant (202) 694-5272

Table 28—U.S. Agricultural Exports by Region

	Fiscal year			1999	2000					
	1998	1999	2000 E	Jul	Feb	Mar	Apr	May	Jun	Jul
	\$ millions									
Region & country										
Western Europe	8,859	7,531	6,400	419	624	577	481	438	423	391
European Union ¹	8,522	6,960	5,900	383	596	557	430	413	408	372
Belgium-Luxembourg	666	602	--	32	43	44	32	41	37	31
France	536	380	--	24	34	21	23	24	18	30
Germany	1,294	1,056	--	56	84	95	94	56	40	48
Italy	729	574	--	20	49	53	48	37	53	36
Netherlands	1,792	1,585	--	70	163	145	83	78	68	81
United Kingdom	1,300	1,123	--	90	92	79	72	87	76	82
Portugal	186	131	--	5	22	8	6	11	4	7
Spain, incl. Canary Islands	1,132	782	--	37	65	46	28	28	42	20
Other Western Europe	336	570	500	36	28	21	51	25	15	19
Switzerland	236	456	--	29	22	15	46	16	9	10
Eastern Europe	320	190	200	15	18	17	10	12	17	12
Poland	139	73	--	6	3	4	3	3	5	7
Former Yugoslavia	97	47	--	4	11	7	3	5	8	2
Romania	31	18	--	0	0	1	1	1	1	1
Newly Independent States	1,456	816	1,400	129	221	70	56	71	56	39
Russia	1,103	468	1,000	68	189	53	45	59	45	27
Asia²	21,992	20,447	19,900	1,547	1,858	2,203	1,762	1,832	1,857	1,655
West Asia (Mideast)	2,286	1,979	2,200	196	209	187	175	171	184	175
Turkey	658	448	700	46	62	55	80	48	51	65
Iraq	131	9	--	--	0	--	--	--	--	--
Israel, incl. Gaza and W. Bank	389	417	--	51	59	31	29	45	47	30
Saudi Arabia	535	468	400	31	44	30	32	35	38	36
South Asia	626	500	400	29	31	29	27	36	34	28
Bangladesh	114	165	--	8	5	9	6	6	4	12
India	163	190	--	12	18	14	17	11	19	10
Pakistan	275	89	--	4	1	4	3	9	5	5
China	1,514	1,012	1,500	39	110	261	97	80	141	121
Japan	9,469	8,940	9,500	636	846	906	754	879	817	688
Southeast Asia	2,288	2,213	2,600	173	205	258	209	169	193	198
Indonesia	529	498	600	36	46	69	61	28	44	79
Philippines	751	734	900	64	67	84	78	73	73	56
Other East Asia	5,808	5,803	5,900	473	456	562	500	499	488	446
Korea, Rep.	2,258	2,483	2,600	228	219	240	209	216	203	201
Hong Kong	1,568	1,264	1,200	88	92	106	96	96	118	88
Taiwan	1,975	2,046	2,100	156	144	216	195	187	167	156
Africa	2,174	2,160	1,900	180	176	178	115	126	206	202
North Africa	1,475	1,468	1,300	125	136	93	66	82	136	132
Morocco	139	162	--	16	23	10	6	11	11	8
Algeria	281	223	--	22	13	24	5	22	27	27
Egypt	939	1,001	900	81	95	50	48	40	97	91
Sub-Sahara	699	692	600	55	40	86	49	44	70	70
Nigeria	140	176	--	9	11	8	13	12	12	21
S. Africa	193	165	--	17	8	13	6	11	12	15
Latin America and Caribbean	11,362	10,502	10,300	805	858	916	829	836	770	874
Brazil	566	369	200	22	22	41	22	21	18	16
Caribbean Islands	1,487	1,453	--	109	120	121	112	108	121	112
Central America	1,137	1,209	--	79	85	93	92	86	80	97
Colombia	606	467	--	34	25	40	32	38	42	41
Mexico	5,956	5,675	6,200	457	501	551	481	517	439	532
Peru	314	347	--	31	10	16	19	5	13	19
Venezuela	516	458	400	30	47	31	37	32	27	30
Canada	7,022	6,957	7,600	586	593	658	614	655	672	604
Oceania	545	499	500	37	34	47	36	32	39	39
Total	53,730	49,102	50,500	3,718	4,382	4,668	3,917	4,022	4,058	3,834

E = Estimate. -- = 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 for 1998 and 1999 through December 1999, but transshipments are not distributed by country as previously for 2000. Information contact: Mary Fant (202) 694-5272

Farm Income

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	\$ billion									
Final crop output	81.0	88.9	82.4	100.3	95.7	115.6	112.3	102.1	93.1	95.5
Food grains	7.3	8.5	8.2	9.5	10.4	10.8	10.4	8.9	7.3	6.8
Feed crops	19.3	20.1	20.2	20.3	24.5	27.2	27.0	22.7	19.8	20.7
Cotton	5.2	5.2	5.2	6.7	6.9	7.0	6.3	6.1	4.7	4.9
Oil crops	12.7	13.3	13.2	14.7	15.5	16.4	19.8	17.5	13.6	14.3
Tobacco	2.9	3.0	2.9	2.7	2.5	2.8	2.9	2.8	2.3	1.8
Fruits and tree nuts	9.9	10.1	10.3	10.3	11.1	11.9	13.1	12.2	13.0	11.5
Vegetables	11.6	11.8	13.7	14.0	15.0	14.4	14.7	15.1	15.2	15.9
All other crops	13.1	13.7	13.7	14.7	15.0	15.8	16.9	17.1	17.4	17.9
Home consumption	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Value of inventory adjustment ¹	-1.2	3.2	-5.3	7.2	-5.3	9.1	1.1	-0.5	-0.2	1.2
Final animal output	87.3	87.1	92.0	89.7	87.7	92.0	96.5	94.2	95.1	99.8
Meat animals	50.1	47.7	51.0	46.7	44.9	44.2	49.7	43.3	45.6	51.9
Dairy products	18.0	19.7	19.3	20.0	19.9	22.8	20.9	24.1	23.2	21.3
Poultry and eggs	15.2	15.5	17.4	18.5	19.1	22.5	22.3	22.9	22.9	23.5
Miscellaneous livestock	2.5	2.6	2.9	3.1	3.3	3.4	3.6	3.7	3.7	3.6
Home consumption	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4
Value of inventory adjustment ¹	1.0	1.0	1.1	1.1	0.2	-1.1	-0.4	-0.3	-0.7	-0.9
Services and forestry	15.4	15.2	17.0	18.1	19.9	20.8	22.1	24.7	26.7	26.9
Machine hire and customwork	1.8	1.8	1.9	2.1	1.9	2.2	2.4	2.2	2.0	2.2
Forest products sold	1.8	2.2	2.5	2.6	2.8	2.6	2.8	3.0	2.9	2.9
Other farm income	4.7	4.1	4.6	4.3	5.8	6.2	6.9	8.7	10.8	10.8
Gross imputed rental value of farm dwellings	7.2	7.2	8.1	9.0	9.4	9.9	10.1	10.8	10.9	11.0
Final agricultural sector output ²	183.7	191.3	191.3	208.0	203.4	228.4	230.9	221.0	214.9	222.2
<i>Minus</i> Intermediate consumption outlays:	94.6	93.4	100.7	104.9	109.7	113.2	121.0	118.5	120.8	126.7
Farm origin	38.6	38.6	41.3	41.3	41.8	42.7	46.8	44.8	45.5	47.2
Feed purchased	19.3	20.1	21.4	22.6	23.8	25.2	26.3	25.0	24.5	24.8
Livestock and poultry purchased	14.1	13.6	14.7	13.3	12.5	11.3	13.8	12.5	13.8	15.0
Seed purchased	5.1	4.9	5.2	5.4	5.5	6.2	6.7	7.2	7.2	7.4
Manufactured inputs	23.2	22.7	23.1	24.4	26.1	28.6	29.2	28.2	27.3	30.2
Fertilizers and lime	8.7	8.3	8.4	9.2	10.0	10.9	10.9	10.6	9.9	10.3
Pesticides	6.3	6.5	6.7	7.2	7.7	8.5	9.0	9.0	8.6	8.7
Petroleum fuel and oils	5.6	5.3	5.4	5.3	5.4	6.0	6.2	5.6	5.8	8.2
Electricity	2.6	2.6	2.7	2.7	3.0	3.2	3.0	2.9	3.0	3.1
Other intermediate expenses	32.8	32.1	36.2	39.2	41.7	41.9	44.9	45.6	48.0	49.3
Repair and maintenance of capital items	8.6	8.5	9.2	9.1	9.5	10.3	10.4	10.4	10.5	10.7
Machine hire and customwork	3.5	3.8	4.4	4.8	4.8	4.7	4.9	5.4	5.3	5.5
Marketing, storage, and transportation	4.7	4.5	5.6	6.8	7.2	6.9	7.1	6.9	7.3	7.8
Contract labor	1.6	1.7	1.8	1.8	2.0	2.1	2.6	2.4	2.6	2.7
Miscellaneous expenses	14.3	13.6	15.2	16.7	18.3	17.8	19.9	20.6	22.3	22.6
<i>Plus</i> Net government transactions:	2.1	2.7	6.9	1.1	0.2	0.2	0.2	4.8	13.1	15.7
+ Direct government payments	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.2	20.6	23.3
- Motor vehicle registration and licensing fees	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4
- Property taxes	5.8	6.1	6.2	6.4	6.6	6.7	6.8	6.9	7.1	7.2
Gross value added	91.2	100.5	97.5	104.3	93.9	115.4	110.1	107.3	107.2	111.1
<i>Minus</i> Capital consumption	18.2	18.3	18.3	18.7	19.2	19.4	19.6	19.7	19.9	19.8
Net value added ²	73.0	82.2	79.2	85.6	74.7	96.0	90.6	87.5	87.3	91.3
<i>Minus</i> Factor payments:	34.5	34.6	34.8	36.8	37.8	41.1	42.0	42.9	43.9	45.7
Employee compensation (total hired labor)	12.3	12.3	13.2	13.5	14.3	15.2	16.0	16.9	17.5	18.4
Net rent received by nonoperator landlords	10.1	11.2	10.9	11.8	10.9	12.9	12.8	12.7	12.9	13.3
Real estate and non-real estate interest	12.1	11.0	10.7	11.6	12.6	13.0	13.1	13.4	13.6	14.1
Net farm income ²	38.5	47.7	44.3	48.8	36.9	54.9	48.6	44.6	43.4	45.6

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 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: rogers@ers.usda.gov
To confirm that this table contains the current forecast, go to <http://www.ers.usda.gov/briefing/farmincome/fore/fore.htm>

Table 30—Farm Income Statistics

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<i>\$ billion</i>										
Cash income statement:										
1. Cash receipts	167.9	171.3	177.9	181.1	188.0	199.1	207.6	196.6	188.6	194.5
Crops ¹	82.1	85.6	87.5	92.9	100.8	106.3	111.1	102.5	93.1	94.1
Livestock	85.8	85.7	90.4	88.2	87.1	92.8	96.5	94.1	95.5	100.3
2. Direct Government payments	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.2	20.6	23.3
3. Farm-related income ²	8.3	8.0	9.0	9.0	10.5	10.9	12.0	13.9	15.8	15.9
4. Gross cash income (1+2+3)	184.4	188.5	200.3	198.1	205.8	217.4	227.1	222.6	225.0	233.6
5. Cash expenses ³	134.1	133.5	141.2	147.4	153.2	159.8	168.6	167.2	170.4	178.3
6. Net cash income (4-5)	50.2	54.9	59.1	50.7	52.5	57.6	58.5	55.4	54.6	55.4
Farm income statement:										
7. Gross cash income (4)	184.4	188.5	200.3	198.1	205.8	217.4	227.1	222.6	225.0	233.6
8. Noncash income ⁴	7.8	7.8	8.7	9.6	9.9	10.3	10.6	11.3	11.4	11.5
9. Value of inventory adjustment	-0.2	4.2	-4.2	8.3	-5.0	8.0	0.7	-0.7	-0.9	0.3
10. Gross farm income (7+8+9)	191.9	200.4	204.7	215.9	210.7	235.7	238.4	233.2	235.5	245.5
11. Total production expenses	153.4	152.8	160.4	167.1	173.8	180.8	189.8	188.6	192.1	199.8
12. Net farm income (10-11)	38.5	47.7	44.3	48.8	36.9	54.9	48.6	44.6	43.4	45.6

Values for last 2 years are preliminary or forecast. 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: rogers@ers.usda.gov

To confirm that this table contains the current forecast, go to <http://www.ers.usda.gov/briefing/farmincome/fore/fore.htm>

Table 31—Average Income to Farm Operator Households¹

	1992	1993	1994	1995	1996	1997	1998	1999	2000
<i>\$ per farm</i>									
Net cash farm business income ²	11,320	11,248	11,389	11,218	13,502	12,676	14,357	13,194	--
Less depreciation ³	5,187	6,219	6,466	6,795	6,906	6,578	7,409	7,027	--
Less wages paid to operator ⁴	216	454	425	522	531	513	637	499	--
Less farmland rental income ⁵	360	534	701	769	672	568	543	802	--
Less adjusted farm business income due to other household(s) ⁶	961	872	815	649	1,094	*1,505	1,332	1,262	--
<i>\$ per farm operator household</i>									
Equals adjusted farm business income	4,596	3,168	2,981	2,484	4,300	3,513	4,436	3,603	--
Plus wages paid to operator	216	454	425	522	531	513	637	499	--
Plus net income from farmland rental ⁷	360	--	--	1,053	1,178	945	868	1,312	--
Equals farm self-employment income	5,172	3,623	3,407	4,059	6,009	4,971	5,941	5,415	--
Plus other farm-related earnings ⁸	2,008	1,192	970	661	1,898	1,234	1,165	944	--
Equals earnings of the operator household from farming activities	7,180	4,815	4,376	4,720	7,906	6,205	7,106	6,359	4,589
Plus earnings of the operator household from off-farm sources ⁹	35,731	35,408	38,092	39,671	42,455	46,358	52,628	57,988	60,058
Equals average farm operator household income	42,911	40,223	42,469	44,392	50,361	52,562	59,734	64,347	64,645
<i>\$ per U.S. household</i>									
U.S. average household income ¹⁰	38,840	41,428	43,133	44,938	47,123	49,692	51,855	--	--
<i>Percent</i>									
Average farm operator household income as percent of U.S. average household income	110.5	97.1	98.5	98.8	106.9	105.8	115.2	--	--
Average operator household earnings from farming activities as percent of average operator household income	16.7	12.0	10.3	10.6	15.7	11.8	11.9	10	--

-- = Not available. Values in last two columns are 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 is 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 the 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 the 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: U.S. Department of Agriculture, Economic Research Service, 1992, 1993, 1994, and 1995 Farm Costs and Returns Survey (FCRS), and 1996 and 1997 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@ers.usda.gov

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<i>\$ billion</i>										
Farm assets	844.2	868.3	910.2	935.5	966.7	1,003.7	1,051.5	1,064.2	1,083.7	1,111.7
Real estate	624.8	640.8	677.6	704.1	740.5	769.4	808.4	822.8	846.7	872.9
Livestock and poultry ¹	68.1	71.0	72.8	67.9	57.8	60.3	67.1	62.0	61.3	60.4
Machinery and motor vehicles	85.9	85.4	86.5	87.5	88.5	88.9	89.0	88.6	86.9	86.3
Crops stored ^{2,3}	22.2	24.2	23.3	23.3	27.4	31.7	32.2	30.1	30.3	31.5
Purchased inputs	2.6	3.9	3.8	5.0	3.4	4.4	5.1	5.3	5.5	5.6
Financial assets	40.5	43.1	46.3	47.6	49.1	49.0	49.7	55.4	53.0	55.0
Total farm debt	139.2	139.1	142.0	146.8	150.8	156.1	165.4	172.7	176.4	176.4
Real estate debt ³	74.9	75.4	76.0	77.7	79.3	81.7	85.4	89.6	94.2	95.5
Non-real estate debt ⁴	64.3	63.6	65.9	69.1	71.5	74.4	80.1	83.1	82.2	81.0
Total farm equity	705.0	729.3	768.3	788.7	815.9	847.6	886.1	891.5	907.3	935.3
<i>Percent</i>										
Selected ratios										
Debt to equity	19.8	19.1	18.5	18.6	18.5	18.4	18.7	19.4	19.4	18.9
Debt to assets	16.5	16.0	15.6	15.7	15.6	15.6	15.7	16.2	16.3	15.9

Values in the last two columns are preliminary or forecast. 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@ers.usda.gov*

To confirm that this table contains the current forecast, go to <http://www.ers.usda.gov/briefing/farmincome/fore/fore.ht>

Table 33—Cash Receipts from Farming

	Annual			1999		2000				
	1997	1998	1999	Jun	Jan	Feb	Mar	Apr	May	Jun
<i>\$ million</i>										
Commodity sales ¹	207,596	196,575	188,610	13,873	15,509	13,291	15,180	13,671	15,016	13,945
Livestock and products	96,463	94,112	95,463	7,592	7,869	7,901	8,694	7,678	8,864	7,888
Meat animals	49,681	43,336	45,600	3,493	4,294	4,322	4,883	3,927	5,127	4,061
Dairy products	20,940	24,114	23,204	1,935	1,563	1,685	1,805	1,724	1,781	1,738
Poultry and eggs	22,260	22,942	22,942	1,903	1,729	1,668	1,762	1,803	1,725	1,826
Other	3,581	3,719	3,717	262	284	226	244	223	231	262
Crops	111,134	102,463	93,146	6,281	7,640	5,390	6,486	5,993	6,152	6,057
Food grains	10,411	8,892	7,292	932	517	283	458	270	278	788
Feed crops	27,048	22,666	19,752	1,397	2,482	1,441	1,643	905	959	1,303
Cotton (lint and seed)	6,345	6,101	4,696	111	246	235	155	61	75	98
Tobacco	2,874	2,803	2,273	0	290	106	40	9	0	0
Oil-bearing crops	19,802	17,483	13,555	630	1,321	754	963	625	582	713
Vegetables and melons	14,653	15,145	15,164	1,390	972	773	1,113	1,248	1,865	1,397
Fruits and tree nuts	13,134	12,238	12,975	895	719	741	582	896	898	830
Other	16,866	17,136	17,441	925	1,093	1,057	1,532	1,979	1,494	928
Government payments	7,495	12,209	20,594	2,279	2,607	1,151	946	1,057	247	239
Total	215,092	208,784	209,204	16,152	18,117	14,442	16,126	14,728	15,263	14,184

Annual values for the most recent 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 contacts: Larry Traub (202) 694-5593 or ltraub@ers.usda.gov*
 To receive current monthly cash receipts via e-mail contact Larry Traub.

Table 34—Cash Receipts from Farm Marketings, by State

Region and State	Livestock and products				Crops ¹				Total ¹			
	1998	1999	May 1999	Jun 2000	1998	1999	May 1999	Jun 2000	1998	1999	May 1999	Jun 2000
<i>\$ million</i>												
North Atlantic												
Maine	295	286	22	22	215	229	15	6	510	515	36	28
New Hampshire	69	63	6	5	86	90	8	4	155	153	13	9
Vermont	463	473	38	36	71	68	6	2	534	541	44	39
Massachusetts	108	101	9	8	314	295	14	25	422	396	23	33
Rhode Island	9	8	1	1	40	39	3	2	49	48	4	3
Connecticut	184	180	14	14	298	302	21	12	482	482	35	26
New York	2,092	2,043	163	160	1,055	1,054	53	67	3,146	3,097	216	227
New Jersey	219	187	12	11	609	554	43	53	828	740	55	65
Pennsylvania	2,909	2,877	227	215	1,252	1,193	82	78	4,161	4,070	309	293
North Central												
Ohio	1,854	1,786	145	151	3,064	2,643	148	155	4,918	4,429	293	306
Indiana	1,632	1,581	123	158	2,899	2,792	121	147	4,531	4,373	244	305
Illinois	1,574	1,524	161	135	6,448	5,233	290	319	8,022	6,757	451	454
Michigan	1,320	1,331	114	114	2,186	2,139	120	120	3,506	3,470	234	234
Wisconsin	4,491	4,149	327	320	1,610	1,447	66	75	6,101	5,596	392	395
Minnesota	3,773	3,548	356	317	4,102	3,513	162	220	7,875	7,061	518	537
Iowa	4,753	4,712	507	434	6,300	5,004	273	332	11,053	9,716	780	766
Missouri	2,469	2,477	257	217	2,285	1,779	82	99	4,754	4,256	338	316
North Dakota	555	647	49	36	2,359	2,112	91	126	2,913	2,759	140	162
South Dakota	1,549	1,830	200	164	1,855	1,709	78	135	3,404	3,539	277	299
Nebraska	5,124	5,425	652	450	3,906	3,130	126	187	9,030	8,555	778	637
Kansas	4,539	5,009	557	454	3,408	2,607	110	155	7,946	7,616	667	609
Southern												
Delaware	609	566	46	50	167	153	7	13	776	718	54	64
Maryland	942	937	80	79	571	544	41	40	1,513	1,481	120	119
Virginia	1,565	1,580	138	137	766	704	28	37	2,332	2,283	166	175
West Virginia	335	334	27	27	61	53	2	5	396	387	29	32
North Carolina	3,956	3,850	336	375	3,233	2,838	181	165	7,190	6,688	517	541
South Carolina	764	773	63	56	733	633	34	54	1,497	1,406	97	111
Georgia	3,400	3,334	262	258	2,017	1,907	128	159	5,418	5,241	389	417
Florida	1,390	1,363	87	92	5,573	5,702	791	315	6,963	7,066	878	407
Kentucky	2,171	2,158	106	88	1,603	1,298	24	41	3,773	3,456	130	129
Tennessee	1,039	1,011	105	84	1,166	963	33	51	2,205	1,974	138	135
Alabama	2,587	2,777	199	191	709	662	35	41	3,296	3,438	233	232
Mississippi	2,164	2,143	166	169	1,271	1,031	27	41	3,436	3,174	193	210
Arkansas	3,283	3,397	273	275	2,141	1,863	42	120	5,423	5,259	315	396
Louisiana	631	620	61	50	1,236	1,228	23	26	1,868	1,848	84	76
Oklahoma	2,803	3,135	344	283	962	855	38	153	3,765	3,991	382	436
Texas	8,149	8,480	979	726	5,005	4,572	242	319	13,154	13,052	1,221	1,045
Western												
Montana	883	928	84	65	924	789	34	50	1,808	1,716	118	115
Idaho	1,585	1,603	143	127	1,742	1,744	129	110	3,327	3,347	272	237
Wyoming	680	680	32	35	168	172	2	3	848	852	34	39
Colorado	2,842	3,016	291	260	1,529	1,338	95	80	4,371	4,354	386	340
New Mexico	1,420	1,441	158	125	521	513	43	63	1,941	1,953	201	188
Arizona	921	987	109	101	1,410	1,191	145	115	2,331	2,178	253	215
Utah	723	724	55	57	261	243	12	15	984	967	67	72
Nevada	199	216	21	17	149	118	5	9	348	334	26	26
Washington	1,743	1,658	118	132	3,413	3,275	175	230	5,156	4,933	293	362
Oregon	762	790	79	67	2,199	2,262	104	150	2,961	3,052	183	217
California	6,526	6,714	555	527	18,145	18,087	1,786	1,293	24,671	24,801	2,341	1,819
Alaska	27	29	2	2	18	19	1	2	44	48	3	4
Hawaii	90	86	8	8	423	447	35	36	514	533	42	44
U.S.	94,112	95,463	8,864	7,888	102,463	93,146	6,152	6,057	196,575	188,610	15,016	13,945

Annual values for the most recent year are preliminary. 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: Larry Traub (202) 694-5593 or ltraub@ers.usda.gov. To receive current monthly cash receipts via e-mail, contact Larry Traub.

Table 35—CCC Net Outlays by Commodity & Function

Commodity/Program	Fiscal year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000 E	2001 E
	\$ million									
Commodity/Program										
Feed grains:										
Corn	2,105	5,143	625	2,090	2,021	2,587	2,873	5,402	9,696	3,712
Grain sorghum	190	410	130	153	261	284	296	502	942	252
Barley	174	186	202	129	114	109	168	224	393	128
Oats	32	16	5	19	8	8	17	41	63	55
Corn and oat products	9	10	10	1	0	0	0	0	1	0
Total feed grains	2,510	5,765	972	2,392	2,404	2,988	3,354	6,169	11,095	4,147
Wheat and products	1,719	2,185	1,729	803	1,491	1,332	2,187	3,435	5,417	1,688
Rice	715	887	836	814	499	459	491	911	1,729	769
Upland cotton	1,443	2,239	1,539	99	685	561	1,132	1,882	4,206	1,700
Tobacco	29	235	693	-298	-496	-156	376	113	301	25
Dairy	232	253	158	4	-98	67	291	480	685	149
Soybeans	-29	109	-183	77	-65	5	139	1,289	2,725	3,325
Peanuts	41	-13	37	120	100	6	-11	21	42	60
Sugar	-19	-35	-24	-3	-63	-34	-30	-51	141	90
Honey	17	22	0	-9	-14	-2	0	2	1	3
Wool and mohair	191	179	211	108	55	0	0	10	7	-6
Operating expense ¹	6	6	6	6	6	6	5	4	60	5
Interest expenditure	532	129	-17	-1	140	-111	76	210	626	707
Export programs ²	1,459	2,193	1,950	1,361	-422	125	212	165	329	691
1988-2000 Disaster/tree/ livestock assistance	1,054	944	2,566	660	95	130	3	2,241	1,549	26
Conservation Reserve Program	0	0	0	0	2	1,671	1,693	1,462	1,587	1,657
Other conservation programs	0	0	0	0	7	105	197	292	382	355
Other	-162	949	-137	-103	320	104	28	588	1,459	1,004
Total	9,738	16,047	10,336	6,030	4,646	7,256	10,143	19,223	32,341	16,395
Function										
Price support loans (net)	584	2,065	527	-119	-951	110	1,128	1,455	1,947	1,248
Cash direct payments: ³										
Production flexibility contract	0	0	0	0	5,141	6,320	5,672	5,476	5,049	4,057
Market loss assistance	0	0	0	0	0	0	0	3,011	11,054	0
Deficiency	5,491	8,607	4,391	4,008	567	-1,118	-7	-3	0	0
Dairy termination	2	0	0	0	0	0	0	0	0	0
Loan deficiency	214	387	495	29	0	0	478	3,360	6,387	5,259
Oilseed	0	0	0	0	0	0	0	0	463	500
Cotton user marketing	140	114	149	88	34	6	416	280	491	355
Other	0	35	22	9	61	1	0	1	476	520
Conservation Reserve Program	0	0	0	0	2	1,671	1,693	1,435	1,551	1,657
Other conservation programs	0	0	0	0	0	85	156	247	331	302
Noninsured Assistance (NAP)	0	0	0	0	2	52	23	54	75	177
Total direct payments	5,847	9,143	5,057	4,134	5,807	7,017	8,431	13,861	25,877	12,827
1988-99 crop disaster	960	872	2,461	577	14	2	-2	1,913	1,299	0
Emergency livestock/tree/DRAP livestock indemn/forage assist.	94	72	105	83	81	128	5	328	250	26
Purchases (net)	321	525	293	-51	-249	-60	207	668	784	57
Producer storage payments	14	9	12	23	0	0	0	0	0	0
Processing, storage, and transportation	185	136	112	72	51	33	38	62	75	75
Export donations ocean transportation	139	352	156	50	69	34	40	323	617	161
Operating expense ¹	6	6	6	6	6	6	5	4	60	5
Interest expenditure	532	129	-17	-1	140	-111	76	210	626	707
Export programs ²	1,459	2,193	1,950	1,361	-422	125	212	165	329	691
Other	-403	545	-326	-105	100	-28	3	234	477	598
Total	9,738	16,047	10,336	6,030	4,646	7,256	10,143	19,223	32,341	16,395

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, & Technical Assistance to Emerging Markets, and starting in FY 2000 Foreign Market Development Cooperative Program and Quality Samples Program. 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 FY 2001 Mid-Session Review Budget which was released on June 26, 2000 based on April 2000 supply & demand estimates. The CCC outlays shown for 1996-2002 include the impact of the Federal Agriculture Improvement and Reform Act of 1996, which was enacted on April 4, 1996, and FY 2000 and FY 2001 outlays include the impact of the Agricultural Risk Protection Act of 2000, which was enacted on June 20, 2000. 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			2000			Year-to-date cumulative		
	1997	1998	1999	Jun	Jul	Aug	Jun	Jul	Aug
	\$ billion								
Sales ¹									
At home ²	383.8	392.3	407.3	36.6	35.6	35.7	209.6	245.2	280.9
Away from home ³	309.5	322.1	343.7	32.3	32.8	33.8	183.8	216.6	250.4
	1998 \$ billion								
Sales ¹									
At home ²	392.4	392.3	397.8	35.3	34.1	34.0	202.6	236.6	270.7
Away from home ³	317.4	322.1	335.3	30.8	31.2	32.1	176.3	207.5	239.6
	Percent change from year earlier (\$ billion)								
Sales ¹									
At home ²	3.8	2.2	3.8	8.6	0.6	4.2	6.7	5.7	5.5
Away from home ³	5.9	4.1	6.7	9.5	5.8	11.2	12.1	11.1	11.1
	Percent change from year earlier (1998 \$ billion)								
Sales ¹									
At home ²	-0.2	0.0	1.4	6.3	-2.2	1.3	8.6	6.9	6.1
Away from home ³	3.0	1.5	4.1	6.9	3.3	8.6	14.5	12.7	12.1

-- = Not available. 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) 694-5389*
 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			1999		2000				
	1997	1998	1999	Jul	Feb R	Mar R	Apr R	May R	Jun R	Jul P
Rail freight rate index ¹ (Dec. 1984=100)										
All products	112.1	113.4	113.0	113.1	113.9	114.0	114.2	114.6	115.0	115.3
Farm products	120.3	123.9	121.8	120.3	122.4	122.5	121.5	121.7	121.7	122.3
Grain food products	107.6	107.4	99.6	99.3	99.7	100.4	99.5	100.5	100.5	100.5
Grain shipments										
Rail carloadings (1,000 cars) ²	23.2	22.8	24.4	24.6	25.5	25.0	22.4	21.9	20.7	22.1
Barge shipments (mil. ton) ³	2.6	3.0	3.5	4.3	1.9	3.2	3.6	3.5	3.3	4.3
Fresh fruit and vegetable shipments ⁴										
Piggy back (mil. cwt)	1.1	0.9	0.7	0.8	0.7	0.9	0.9	1.1	1.0	0.8
Rail (mil. cwt)	1.7	1.2	1.1	0.9	1.1	1.1	1.0	1.4	2.0	1.3
Truck (mil. cwt)	42.6	42.2	44.3	45.8	38.6	44.9	51.5	59.3	56.5	44.4

P= Preliminary. R = Revised. -- = Not available. 1. Department of Labor, Bureau of Labor Statistics. 2. Weekly average; from Association of American Railroads. 3. Shipments on Illinois and Mississippi waterways, U.S. Corps of Engineers. 4. Agricultural Marketing Service, USDA.

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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	--	--

-- = Not available. 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	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
	<i>Lbs.</i>									
Red meats ^{2,3,4}	115.6	112.3	111.9	114.0	112.1	114.7	115.1	112.8	111.0	115.6
Beef	65.4	63.9	63.1	62.8	61.5	63.6	64.4	65.0	63.8	64.9
Veal	1.0	0.9	0.8	0.8	0.8	0.8	0.8	1.0	0.9	0.7
Lamb & mutton	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.9
Pork	48.4	46.4	46.9	49.5	48.9	49.5	49.0	45.9	45.5	49.2
Poultry ^{2,3,4}	53.9	56.3	58.3	60.8	62.5	63.3	62.9	64.1	64.2	65.0
Chicken	40.9	42.4	44.2	46.7	48.5	49.3	48.8	49.5	50.3	50.8
Turkey	13.1	13.8	14.1	14.1	14.0	14.1	14.1	14.6	13.9	14.2
Fish and shellfish ³	15.6	15.0	14.8	14.7	14.9	15.1	14.9	14.7	14.5	14.8
Eggs ⁴	30.5	30.2	30.1	30.3	30.4	30.6	30.2	30.4	30.7	31.8
Dairy products										
Cheese (excluding cottage) ^{2,5}	23.8	24.6	25.0	26.0	26.2	26.8	27.3	27.7	28.0	28.4
American	11.0	11.1	11.1	11.3	11.4	11.5	11.8	12.0	12.0	12.2
Italian	8.5	9.0	9.4	10.0	9.8	10.3	10.4	10.8	11.0	11.3
Other cheeses ⁶	4.3	4.5	4.6	4.7	5.0	5.0	5.0	5.0	5.0	4.8
Cottage cheese	3.6	3.4	3.3	3.1	2.9	2.8	2.7	2.6	2.7	2.7
Beverage milks ²	224.2	221.8	221.1	218.3	213.4	213.6	209.8	210.0	206.9	204.5
Fluid whole milk ⁷	97.5	90.4	87.3	84.0	80.1	78.8	75.3	74.6	72.7	71.6
Fluid lower fat milk ⁸	106.5	108.5	109.9	109.3	106.6	106.0	102.6	101.7	99.9	98.5
Fluid skim milk	20.2	22.9	23.9	25.0	26.7	28.8	31.9	33.7	34.3	34.4
Fluid cream products ⁹	7.8	7.6	7.7	8.0	8.0	8.1	8.4	8.7	9.0	9.2
Yogurt (excluding frozen)	4.2	4.0	4.2	4.2	4.3	4.7	5.1	4.8	5.2	5.1
Ice cream	16.1	15.8	16.3	16.3	16.1	16.1	15.7	15.9	16.4	16.6
Lowfat ice cream ¹⁰	8.4	7.7	7.4	7.1	6.9	7.6	7.5	7.6	7.9	8.3
Frozen yogurt	2.0	2.8	3.5	3.1	3.5	3.5	3.5	2.6	2.1	1.9
All dairy products, milk equivalent, milkfat basis ¹¹	563.8	568.4	565.6	565.9	574.1	586.0	583.9	574.7	577.7	582.3
Fats and oils—total fat content	60.5	63.0	64.8	66.8	69.7	68.0	66.4	65.3	64.9	65.3
Butter and margarine (product weight)	14.6	15.3	15.0	15.4	15.8	14.8	13.7	13.5	12.8	12.5
Shortening	21.5	22.2	22.4	22.4	25.1	24.1	22.5	22.3	20.9	20.9
Lard and edible tallow (direct use)	1.8	2.2	1.8	3.5	3.4	4.2	4.4	4.8	4.1	5.2
Salad and cooking oils	24.4	25.3	26.4	27.2	26.9	26.2	26.9	26.2	28.6	27.9
Fruits and vegetables ¹²	656.0	656.1	650.3	677.7	691.3	705.8	694.3	710.9	717.9	699.6
Fruit	278.0	272.6	255.3	283.8	283.1	291.0	284.8	290.2	296.8	281.4
Fresh fruits	122.9	116.3	113.0	123.5	124.5	126.3	124.1	128.1	131.9	131.8
Canned fruit	21.2	21.0	19.8	22.9	20.7	21.0	17.5	18.8	20.4	17.3
Dried fruit	13.2	12.1	12.3	10.8	12.6	12.8	12.8	11.3	10.8	12.8
Frozen fruit	4.1	3.8	3.8	3.9	3.7	3.8	4.2	4.0	3.7	4.2
Selected fruit juices	116.4	119.0	106.0	122.1	121.2	126.7	125.8	127.7	129.3	115.0
Vegetables	378.0	383.5	395.0	393.9	408.3	414.7	409.5	420.7	421.1	418.1
Fresh	172.2	167.1	167.4	171.1	178.2	184.6	179.1	184.1	190.4	186.5
Canning	102.4	111.6	114.4	112.2	112.9	112.4	110.8	109.5	107.8	108.0
Freezing	67.4	66.8	72.6	70.9	76.0	78.4	79.9	84.7	81.9	82.3
Dehydrated and chips	29.8	31.0	32.8	31.5	33.6	31.0	31.3	34.5	32.7	32.9
Pulses	6.3	7.1	7.8	8.1	7.7	8.4	8.4	8.0	8.3	8.4
Peanuts (shelled)	7.0	6.0	6.5	6.2	6.1	5.8	5.7	5.7	5.9	5.9
Tree nuts (shelled)	2.2	2.4	2.2	2.2	2.4	2.3	1.9	2.0	2.1	2.3
Flour and cereal products ¹³	174.2	181.6	183.0	185.6	189.7	192.4	190.3	196.3	197.6	195.0
Wheat flour	129.7	136.0	137.0	138.9	143.3	144.5	141.8	148.7	149.5	145.9
Rice (milled basis)	14.8	15.8	16.2	16.7	16.7	18.1	18.9	17.8	18.4	18.9
Caloric sweeteners ¹⁴	133.1	136.9	137.9	141.2	144.4	147.3	149.8	150.7	154.0	155.1
Coffee (green bean equiv.)	10.1	10.3	10.3	10.0	9.1	8.2	8.0	8.9	9.3	9.5
Cocoa (chocolate liquor equiv.)	4.0	4.3	4.6	4.6	4.3	3.9	3.6	4.2	4.1	4.4

-- = 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. Formerly known as ice milk. 11. Includes condensed and evaporated milk and dry milk products. 12. Farm weight. 13. Includes rye, corn, oats, and barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, and fuel. 14. Dry weight equivalent.

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