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Feed Outlook

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Record U.S. Corn Crop and Record Use Expected in 2004/05

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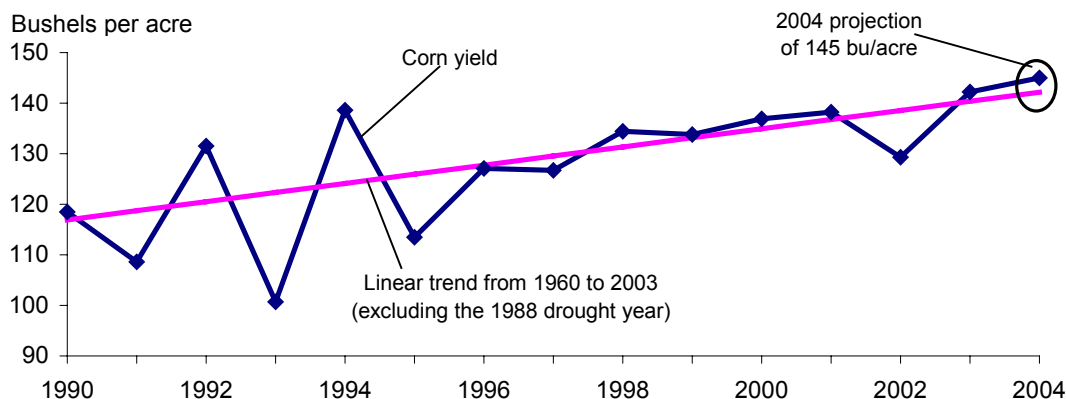
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Approved by the
World Agricultural
Outlook Board.

This report summarizes the initial U.S. Department of Agriculture (USDA) supply and demand projections and U.S. price prospects for the 2004/05 marketing year. Because planting of spring crops is still underway in the Northern Hemisphere and remains several months away in the Southern Hemisphere, these projections are highly tentative. Projections are based on USDA surveys, economic analysis, the assumption of normal weather, and judgement.

Despite record world coarse grains production, global coarse grains consumption in 2004/05 is projected larger than production for the sixth consecutive year. World coarse grains stocks are expected to decline 18 million tons to 104 million tons, the lowest since 1975/76. However, the drop in stocks is concentrated in China, down 21 million tons, and coarse grains stocks are expected to increase in other countries, especially the EU-25, up 27 percent.

Figure 1
Accelerated spring plantings put the 2004 corn yield projection above trend



Source: National Agricultural Statistics Service and Economic Research Service, USDA.

Domestic Outlook

Feed Grain Production Up 8.3 Million Tons

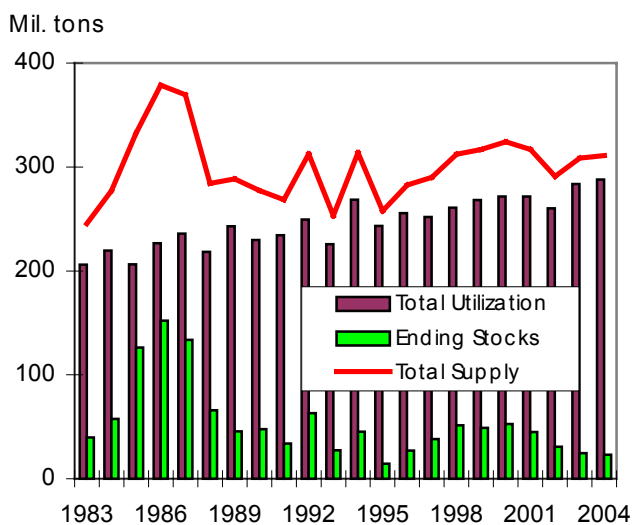
Total feed grain production for 2004/05 is projected at 283.8 million tons, up from 275.5 million in the previous marketing year. This year-over-year increase stems from a projected record corn crop. Sorghum production is also expected to rise in 2004/05 but oats and barley production are projected lower.

Yield is projected higher in 2004/05 but harvested area is down slightly. Harvested area projections are based on planting intentions and average harvested to planted area relationships. Yield projections are based on linear trends, however, the corn yield was adjusted above trend based on the accelerated planting accomplished this spring. Beginning feed grain stocks are 24.8 million tons, up from 30.9 million tons in 2003/04. Total 2004/05 feed grain supply is projected at 310.9 million tons, up from 308.5 million.

Feed grain utilization is also expected to rise in 2004/05. Food, seed, and industrial use is projected at 73.8 million tons, up from 70.3 million in 2003/04. Exports are expected to rise from 57.9 million tons in 2003/04 to 59.6 million tons. Feed and residual use is expected to decline slightly in 2004/05 to 154.3

Figure 2

U.S. feed grain supply and utilization



Source: Foreign Agricultural Service,

million tons. Despite the increase in supply, ending feed grain stocks are projected to decline 1.6 million tons to 23.2 million. Higher prices are expected for corn, sorghum, and oats.

Changes to 2003/04 Balance Sheets

The only changes made to the 2003/04 marketing year was a 50-million-bushel increase in corn exports to 2,050 million bushels, and a 5-million-bushel decrease in barley exports to 20 million. The following changes to 2003/04 feed grain season average prices were also made:

- the corn and sorghum prices were each lowered 10-cents on the high end to \$2.55, however, the low end remains at \$2.45,
- the barley price went to a point estimate of \$2.85 per bushel,
- the oats price went to a point estimate of \$1.48 per bushel.

Feed and Residual Up Fractionally From 2003/04

The 2004/05 feed and residual use for the four feed grains plus feed wheat is projected at 160.6 million tons, up fractionally from the previous year. Feed and residual use per grain consuming animal unit (GCAU) is projected at 1.83 tons in 2004/05, up from 1.79 tons a year earlier. Total GCAUs are projected to be down about 2 percent to 87.8 million, the lowest since 1996/97. GCAUs are down for all major categories except poultry.

The following is a breakdown of animal production estimates for calendar year 2005:

- Beef production is expected to be 24.35 billion pounds, down from 25.1 billion a year earlier,
- 2005 pork production is 20.3 billion pounds, down 1 percent from 2004,
- poultry production is projected at 41.2 billion pounds, up from 40 billion in 2004,
- egg production is 7.5 billion dozen, up from 7.4 billion a year earlier,
- 2005 milk production is 172.1 billion pounds, up from 169.8 billion.

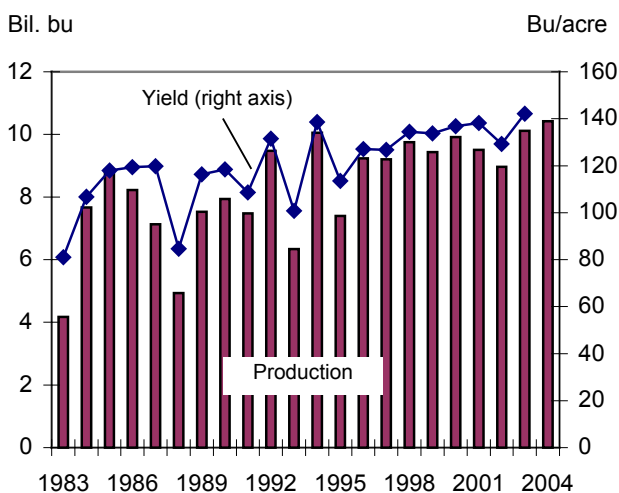
Record Corn Production and Yield Expected in 2004/05

The 2004/05 corn crop is projected at a record 10,425 million bushels, up from the previous record of 10,114 million bushels of a year earlier. This year-over-year change stems from a nearly 800,000 acre increase in harvested area to 71.9 million acres, and a 2.8 bushel per acre increase in yield to a record 145 bushels per acre. USDA generally uses a trend yield estimate for the May World Agricultural Supply and Demand Estimates, however, the yield forecast was raised above this trend due to the accelerated corn planting this spring. As of May 9, 2004, 84 percent of the 2004/05 corn crop has been planted. This is the most rapid corn planting pace on record and well above the 5-year average of 63 percent. Planted area is based on the March *Prospective Plantings* report, and harvested acreage is based on the relationship between planted and harvested area from 1998-2003 (omitting 2002).

Beginning 2004/05 corn stocks are 806 million bushels, down from 1,087 million a year earlier. Total corn supply is 11,246 million bushels, up fractionally from the previous year.

Total corn utilization is projected at a record 10,505 million bushels, up from 10,405 million bushels the previous year. This year-over-year increase stems

Figure 3
Corn production and yield

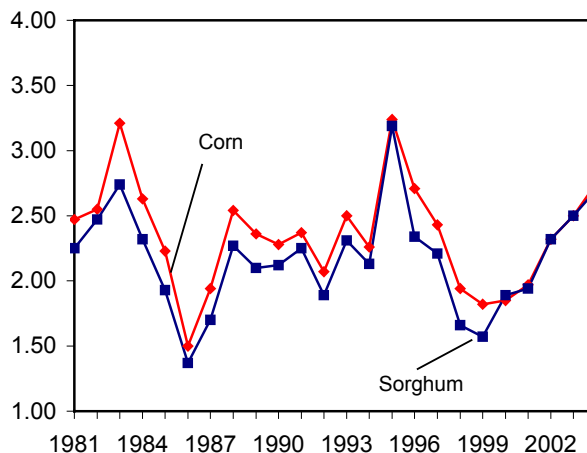


Source: National Agricultural Statistics Service, USDA.

Figure 4

Annual average farm price for corn and sorghum

Dol./bu



Source: National Agricultural Statistics Service, USDA.

from increased food, seed, and industrial use and exports; feed and residual is down 1 percent to 5,725 million bushels. Food, seed, and industrial use is projected at 2,680 million bushels, up from 2,555 million bushels expected in 2003/04. Increased ethanol production is the major factor behind this year-over-year increase. Exports for 2004/05 are projected at 2,100 million bushels, up 50 million from the previous year.

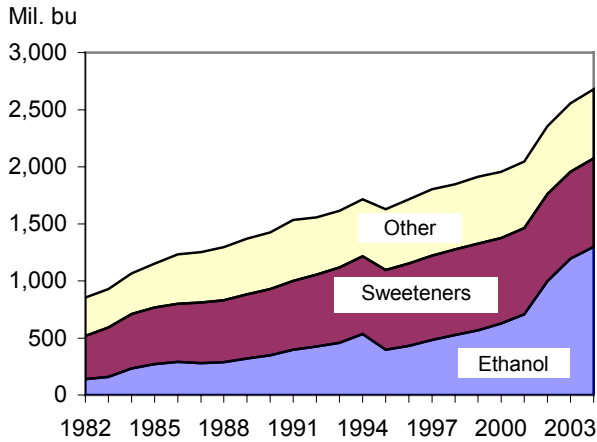
Ending stocks of corn for 2004/05 are projected at 741 million bushels, down from 806 million a year earlier and the lowest since 1995/96. The stocks-to-use ratio is expected to be 7 percent in 2004/05, down from 7.7 percent a year earlier. Season average corn prices for 2004/05 are projected at \$2.55-\$2.95 per bushel compared with \$2.45-\$2.55 per bushel the previous year.

Food, Seed, and Industrial Use To Continue Growing

Food, seed, and industrial (FSI) use in 2004/05 is expected to increase nearly 5 percent from a year earlier and equal to 26 percent of total use, up from an expected 25 percent in 2003/04 and 2002/03. High-fructose corn syrup use of corn is projected to increase almost 1 percent from the 535 million

Figure 5

Food, seed, and industrial use of corn

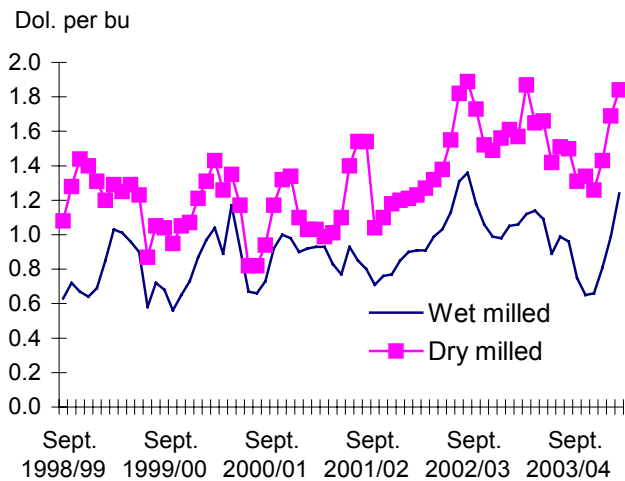


Note: Other includes starch, beverage alcohol, cereals and other products, and seed.

Source: Economic Research Service, USDA.

Figure 6

Net corn costs for wet and dry milling



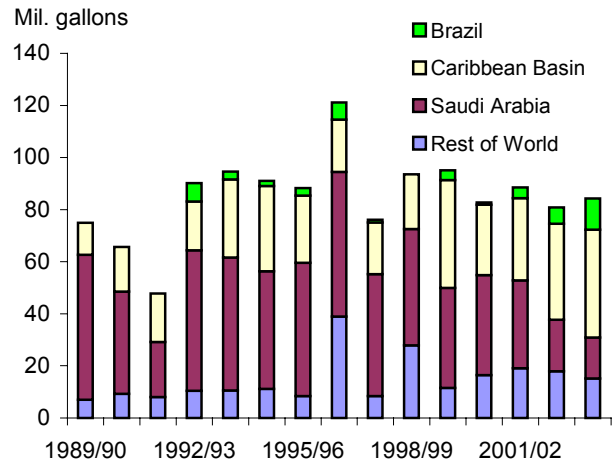
Source: Economic Research Service, USDA.

bushels expected to be used in 2003/04. This is a slower growth rate than in many prior years, but per capita sweetener use is already record-high.

Glucose and dextrose use of corn in 2004/05 is expected to be up 3 percent from the expected 225 million bushels the previous year, which was up 3 percent from 2002/03. Starch use of corn in the first half of 2003/04 was up 4 percent from the year earlier but for all of 2003/04, starch use is expected to be up

Figure 7

U.S. ethyl alcohol imports, Sept.-Mar.



Source: Economic Research Service, USDA.

nearly 2 percent from 2002/03. In 2004/05, corn used to produce starch may increase 2 percent from the expected use in 2003/04.

Corn use for ethanol in 2004/05 is projected to increase 9 percent following an expected 20-percent gain in 2003/04. Monthly ethanol production reported by the Department of Energy was record-high at 212,000 barrels per day in February 2004 (the latest available data), helping boost first-half of 2003/04 to a record 1,531 million gallons. The refining industry geared up for the complete conversion from methyl tertiary butyl ether (MTBE) to ethanol in California by January 2004 plus New York and Connecticut. The California ban on using MTBE was delayed from January 2003 but many of the California gasoline producers had conversion plans underway prior to the announced delay and used ethanol before the required date. This ethanol production reflects higher use of capacity and the new plants that have been added in response to strong demand and State-level ethanol production incentives as well as a Federal Bioenergy Program.

Stocks in February of ethanol also reported by DOE were down 23 percent from their record high in March 2003 of 284.87 million gallons. With the conversion to ethanol by these three States, free stocks of ethanol are down and prices have risen in line with soaring gasoline prices. However, while gasoline prices continue to increase, ethanol prices

peaked in late April and have weakened through early May.

Although the cost of corn, the main feedstock for ethanol, has been rising sharply, strong ethanol prices and rising co-product prices have kept pace or in many cases increased more. Prices of co-products such as corn gluten feed and meal, corn oil, and distillers' grains, have been lifted by the soaring market for protein meal and vegetable oil, as well as higher grain prices. This has kept economic incentives for ethanol producers favorable.

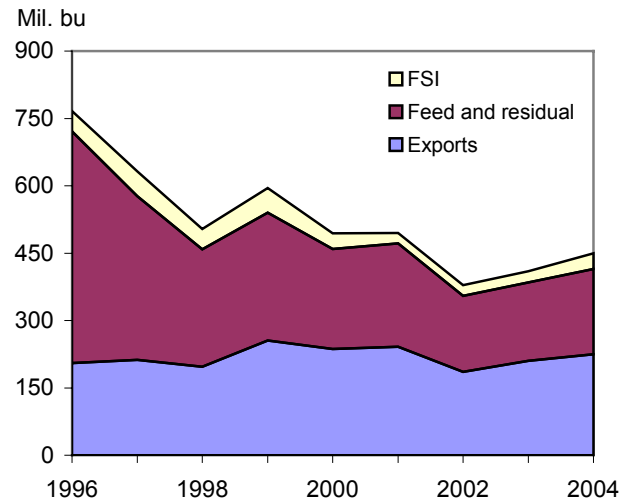
High ethanol prices and the increasing size of the U.S. market have recently spurred increased interest in imports. Ethanol imports are constrained by a 54-cent-per-gallon tariff, but spot prices were high enough in the spring of 2004 to offset the effects of the tariff. September through March 2004 trade data show a 4-percent increase in imports, and there have been reports that more imports are planned this summer. Brazil is reportedly investing in ethanol export infrastructure and is supporting a new ethanol futures contract on the New York Board of Trade to facilitate trade expansion.

In addition to imports with the tariff, ethanol can be imported duty free from qualifying Central American and Caribbean countries under the Caribbean Basin Initiative (CBI). Potential imports of ethanol produced from regional feedstocks are negligible due to the region's tiny production capacity. However, the CBI also allows duty-free imports of ethanol reprocessed in the region of up to 7 percent of the U.S. ethanol market. This provides an indirect route for ethanol from Brazil, the world's largest producer. With the phenomenal growth in the U.S. market, this 7-percent window is increasing significantly. Thus, the continuation of high ethanol prices, that is expected if gasoline prices remain strong, could lead to increased imports.

Sorghum Supply Projected At 499 Million Bushels

The 2004/05 sorghum crop is projected to be 455 million bushels, up from 411 million a year earlier. This year-over-year increase stems from a nearly 10-bushel-per-acre increase in yield to 62.6 bushels per

Figure 8
Sorghum utilization



Source: Economic Research Service, USDA.

acre. Projected harvested area declined from 7.8 million acres to 7.3 million. The yield projection is based on a 10-year average. Planted area comes from the March *Prospective Plantings* report, and harvested area comes from the 1998-2003 harvested/planted ratio (excluding 2002).

Beginning 2004/05 stocks are 44 million bushels. Total supply is projected to be 499 million bushels, the largest since 2001/02.

Total utilization is expected to increase from 410 million bushels to 450 million bushels in 2004/05. Feed and residual use, food, seed, and industrial use, and exports all show year-over-year increases. Feed and residual use for 2004/05 is projected at 190 million bushels, up from 175 million a year earlier. Food seed and industrial use is projected at 35 million bushels, up from 25 million bushels in 2003/04. This increase stems from expectations of sorghum prices to be slightly lower than corn prices, which will increase the use of sorghum in ethanol production. Exports are projected at 225 million bushels, up 15 million from 2003/04.

Ending sorghum stocks for 2004/05 are projected at 49 million bushels, up from 44 million a year earlier. The 2004/05 season average sorghum price is projected at \$2.50-\$2.90, up from \$2.45-\$2.55 a year earlier.

Barley Production To Decrease 21 Million Bushels in 2004/05

The 2004/05 barley crop is projected at 255 million bushels, compared with 276 million the previous year. This decrease comes from a more than 600,000-acre decrease in harvested area, which is projected at 4.1 million acres in 2004/05. A 3.6-bushel per-acre yield increase, now projected at 62.5 bushels per acre, partially offsets the decrease in harvested area.

Barley planted area is based on the March *Prospective Plantings* report, and harvested area comes from the 2000-2003 average relationship between harvested and planted area (excluding 2002). Barley yield comes from 1960-2003 trend yields.

Barley beginning stocks are 103 million bushels, up from 69 million bushels in 2003/04 and the largest since 2001/02. Imports for 2003/04 are forecast at 20 million bushels, up 5 million from a year earlier. Total supply is 378 million bushels, up from 360 million bushels and the largest since 2001/02.

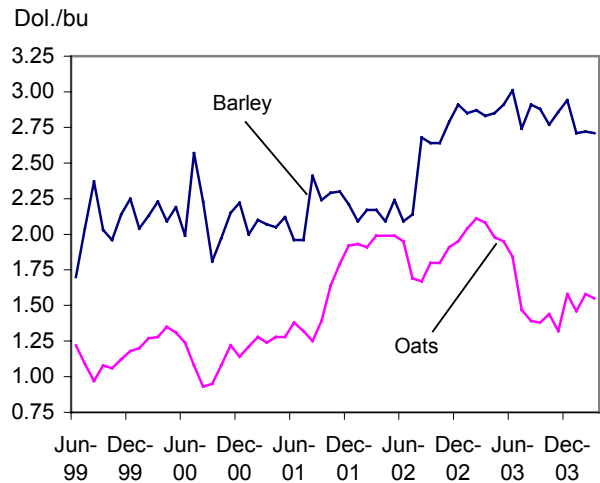
On the use side, feed and residual use and exports are projected to increase in 2004/05. Food, seed, and industrial use is unchanged at 172 million bushels. Feed and residual use for 2004/05 is projected at 80 million bushels, up from 65 million a year earlier. Exports are projected at 25 million bushels, up from 20 million in 2003/04. Total 2004/05 barley utilization is projected at 277 million bushels, up from 257 million a year earlier.

Ending barley stocks for 2004/05 are projected at 101 million bushels, down 2 million bushels from the previous year. Barley prices are projected at \$2.60-\$3.00 for 2004/05 compared with \$2.85 in the previous year.

Oats Production To Decrease in 2004/05

The 2004/05 oats crop is projected at 130 million bushels, down from 145 million the previous year. This year-over-year decrease stems from a decline in harvested area from 2.2 million acres to 2.1 million acres, and a 2.1-bushel per-acre decrease in yield. The 2004/05 yield is projected to be 62.9 bushels per acre. Oats harvested area comes from the March *Prospective Plantings* report, and the yield projection stems from the 1960-2003 trend.

Figure 9
Barley and oats prices



Source: National Agricultural Statistics Service, USDA.

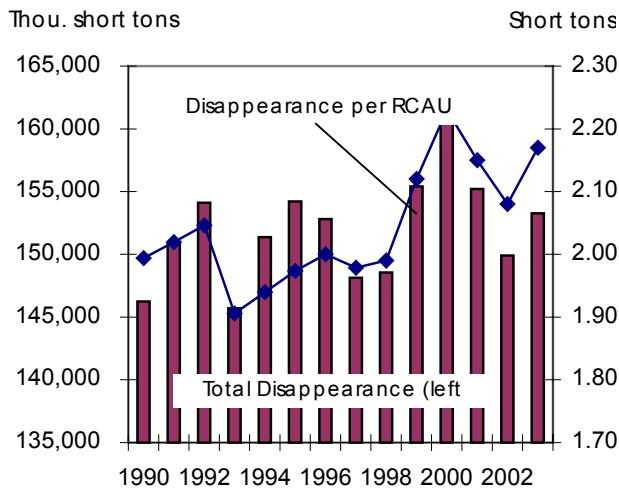
Beginning stocks are 64 million bushels and imports are projected at 90 million bushels, unchanged from the previous year. This puts the total 2004/05 oats supply at 284 million bushels.

Total 2004/05 utilization is projected at 222 million bushels, up from 220 million a year earlier. Feed and residual use is projected at 145 million bushels, unchanged from 2003/04. Food, seed, and industrial use is projected at 74 million bushels, and 2004/05 exports are projected at 3 million bushels. Ending stocks are expected to be 62 million bushels, down from 64 million in 2003/04. Oats prices are projected at \$1.45-\$1.75 per bushel, compared with \$1.48 in 2003/04.

Hay Disappearance Increased in 2003/04

Hay stocks on May 1, 2004, totaled 25.9 million tons, compared with 22 million in 2003. In the 2003/04 May-April hay year, total disappearance (beginning stocks plus production less ending stocks) was 153 million tons, up 2 percent from the previous year. Roughage consuming animal units (RCAU) were down 2 percent, thus disappearance per unit was up 4 percent from the 2.08 tons consumed in 2002/03. Silage production in 2003 was up 1 percent and together hay and silage per RCAU were up 4 percent from the previous year. Farmers in March indicated they planned to harvest 63.7 million acres of hay in

Figure 10
Hay disappearance per RCAU

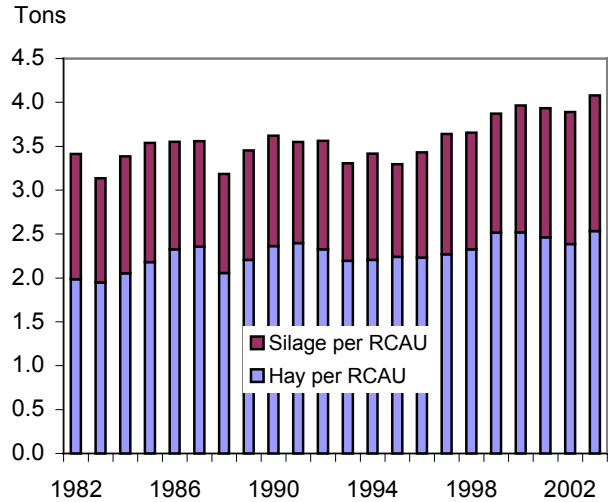


Source: National Agricultural Statistics Service, USDA.

2004, compared with 63.3 million acres harvested in 2003.

Disappearance of hay from December 1, 2003 - May 1, 2004, totaled 84.9 million tons, 5 percent greater than the disappearance of 81.0 million tons for the same period a year earlier. Disappearance was up from the previous year despite the mild winter in the Corn Belt and Rocky Mountains. Thirty-three of the 48 reporting States had higher hay stocks than a year ago. Most of the States reporting an increase in stocks were located in the eastern and central Corn Belt, Southeast, central Great Plains, central Rocky Mountains, and along the middle Atlantic and Pacific Coasts. Compared with May 2003, stocks more than

Figure 11
Hay and silage per RCAU



Source: Economic Research Service, USDA.

doubled in the Ohio Valley due to an increase in production and mild winter weather. Stocks declined in Idaho, Montana, Nevada, and North Dakota as a result of additional hay feeding caused by unfavorable weather conditions and a decline in 2003 production compared with 2002. Texas' stocks were down by 27 percent from last year's record high.

Given estimated livestock numbers, current pasture and range conditions, and hay stocks, prices are expected to remain weak in the 2004/05 hay marketing year. The simple average of all hay prices from May 2003 to April 2004 was \$85.78 per ton, compared with \$94.52 during the same period a year earlier.

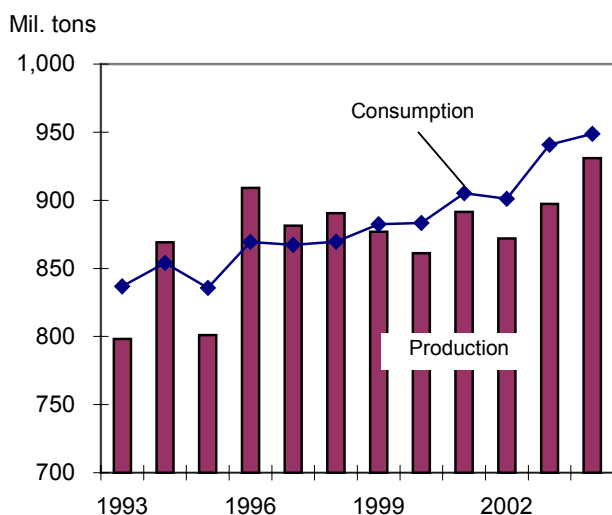
Record Global Coarse Grains Production Projected in 2004/05

World coarse grains production is expected to reach a record 931 million tons in 2004/05, up 34 million tons from the previous year. Much of the increase is in the EU-25. The EU-25 is projected up 19 million to 140 million due to a return to trend yields, following drought a year ago. While in the former Soviet Union, coarse grain production is expected up only marginally, other Europe is up 5 million tons to 23 million, led by recovery in Romania. However, following exceptional rains last year, coarse grains production is expected to decline 2 million tons each in India and Sub-Saharan Africa, places where most coarse grains are used for food. Changes for other countries are less dramatic.

Coarse grain production in China is expected to increase 1 million tons to 124 million. Area planted to corn is expected to decline 2 percent in 2004/05 as some producers turn to other crops. Trend yields imply an increase from the previous year when weather was somewhat adverse. China is expected to remain the largest foreign coarse grains producer.

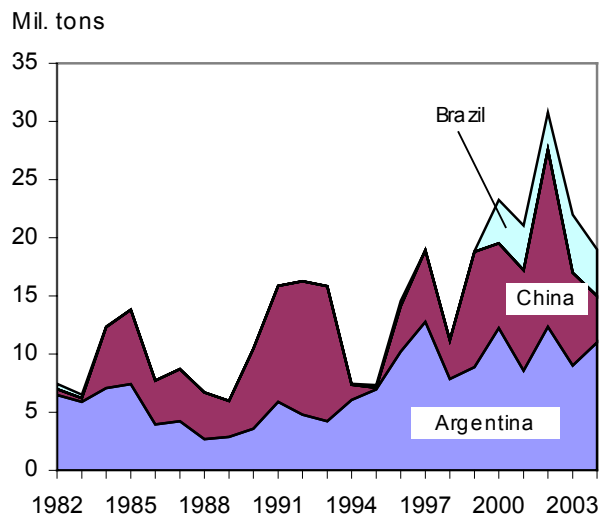
Global corn production is projected to reach a record 643 million tons, up 28 million tons. Foreign corn production is expected to increase 20 million tons in

Figure 12
World coarse grain production and consumption



Source: Foreign Agricultural Service, USDA.

Figure 13
Corn exports for major competitors



Source: Foreign Agricultural Service,

2004/05. A rebound is expected in the EU-25 as a repeat of last year's exceptional drought is not likely. Moreover the EU reduced its required area set aside. EU-25 corn production is expected to increase 12 million tons to 51 million. Other Europe is expected to also rebound, up 4 million tons to 18 million. However, corn production in the former Soviet Union is expected to decline 2 million tons as less winter-killed wheat land is expected to be seeded to corn in Ukraine and a return to average yields signifies a decline following last year's good corn yields.

World barley production is projected up 4 million tons to 144 million, the largest in 7 years. The EU-25 is expected to remain the largest producer, up 3 million tons from the previous year to more than 58 million tons. Other Europe and the former Soviet Union are each expected to increase barley production 1 million tons mostly because of better expected yields. North Africa's barley crop has benefited from another excellent winter of rains, but production prospects may not quite match a year ago. Australia and Canada are each expected to reduce barley area as oilseeds appear more profitable. For Canada a return to average yields implies an increase from last year, but for Australia it means lower yields. While Canada's barley production is expected up slightly,

Australia's is projected down 1.2 million tons to 7.3 million.

Global sorghum production is projected at 59 million tons, up 1 million from the previous year and the largest in 5 years. Foreign sorghum production is expected to decline slightly to 47 million tons in 2004/05. Reduced area in Sudan and less favorable yields in several other Sub Saharan countries is expected to reduce the region's expected sorghum production more than 1 million to less than 19 million. However, India, Argentina, and Brazil are expected to increase sorghum production modestly in 2004/05.

World oats production in 2004/05 is projected down slightly to 26 million tons. Small reductions for Canada and the EU-25 are mostly offset by an increase for Russia.

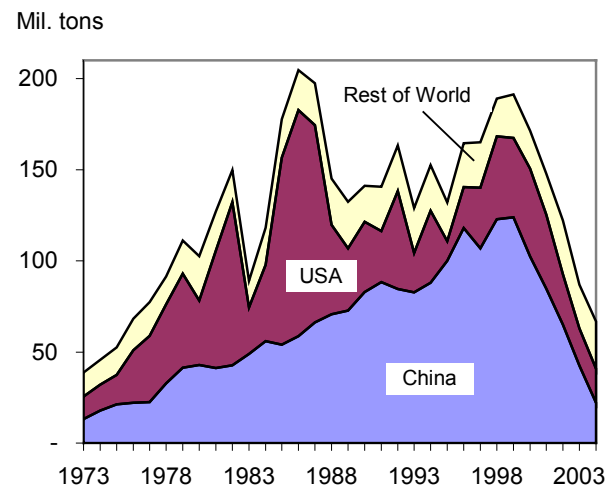
Global rye production in 2004/05 is projected to recover some following the large drop a year ago. World rye production is expected to increase 3 million tons to 17 million tons, still the second lowest level in the USDA data base going back to 1960/61. Rye production in the EU-25 and the former Soviet Union has benefited from much better growing conditions than a year ago.

Revised Estimates of China's Corn Stocks

Supply and demand estimates for corn and coarse grains published in the May 12 World Agricultural Supply and Demand Estimates (WASDE) report incorporate significant revisions of USDA's estimates of China's corn consumption and stocks. China's Government does not publish estimates of grain stocks. Recently, however, information from China's National Bureau of Statistics' surveys of urban households (August 2002) and rural households (November 2003), official statements, and evidence from trade and price patterns indicated that revisions in stock estimates were needed.

Domestic consumption and ending stocks of corn for China are revised beginning with the 1993/94 marketing year. In addition, world corn and coarse grains are revised to incorporate the effect of the changes in the China estimates. Revised estimates for China's coarse grains, which are available at <http://www.usda.gov/oce/waob/wasde/wasde.htm> in

Figure 14
Global ending corn stocks



Source: Foreign Agricultural Service, USDA.

spreadsheet format, only reflect changes in corn use and stocks; estimates for China's other coarse grains are not revised.

There are two parts to the corn consumption revisions. First, USDA lowered estimates of non-feed consumption (consisting of food, industrial, and seed use) back to 1993/94. There are indications that food consumption of corn is gradually declining, while industrial use (for production of starch, alcohol, and other products) is surging. The net effect is that China's overall non-feed consumption is growing at an average annual rate of 2-3 percent a year, not the 5-8 percent previously estimated. Second, feed use is lowered from 1994/95 to 1999/2000 and then raised in subsequent years. These changes make corn feed use more consistent with USDA's meat production estimates for China, USDA's estimates of the feed use of soybean meal and other protein meals, and with structural changes that have occurred in China's livestock sector.

In the early and mid-1990s, China's leadership, concerned about rising imports of some crops, instituted a set of policies which stimulated crop production and resulted in the dramatic growth of grain stocks. However, in recent years, China has sharply reduced government involvement in agricultural production by scaling back and privatizing its grain procurement bureaucracy. Government procurement authorities are still major

players in the major grain-producing provinces of central and northeastern China, but planting decisions and marketings are increasingly driven by market conditions more than government directives. Chinese farmers have responded to market forces by shifting grain acreage into more profitable crops like vegetables, fruits, cotton, fish ponds, and livestock operations. Also, land retirement programs have returned some marginal grain area to forests and grasslands and some additional land has been lost to commercial and residential construction.

When grain prices began rising sharply in late 2003, Chinese officials became alarmed at recent declines in grain production which is substantially below estimated domestic disappearance. In early 2004, Chinese authorities placed greater emphasis on increasing farm incomes and boosting grain production. Major policy initiatives included a phase-out of agricultural taxes and direct subsidies of \$1.2 billion to grain producers in 13 of China's 31 provinces. Other policies include subsidies for high quality seeds and machinery purchases and crackdowns on illegal conversion of farmland and sales of shoddy farm inputs.

These new policies are not expected to boost corn plantings in 2004/05. These direct subsidies are not large enough to make corn as profitable as cotton, soybeans, and horticultural crops. In addition, special subsidies for rice production may attract acreage away from corn in northeastern and central China. Lastly, prices for soybeans, cotton, and rice have risen at twice the rate of corn prices in 2004, which could encourage some farmers to switch corn area to these other crops.

Lowest Beginning Stocks since 1976/77 To Limit Increase in Global Supplies in 2004/05

World coarse grains beginning stocks for 2004/05 are forecast at 123 million tons, up 21 million tons from last month's forecast because of historical revisions to China's corn supply and demand, but the lowest since 1976/77.

Global coarse grains supply can be measured as beginning stocks plus production (for an individual country imports would be added, but for the world

that would cause double counting). For 2004/05, the 34-million-ton increase in global production is more than offset by the 43-million-ton reduction in beginning stocks, leaving global supply down 10 million tons, a decline of 1 percent.

Modest Consumption Growth Expected in 2004/05, But Enough To Reduce Stocks

World coarse grains consumption in 2004/05 is projected at 949 million tons, an increase of less than 1 percent. Foreign consumption is expected to grow only 6 million tons to 720 million. The slow growth is partly caused by a 5-million-ton drop in expected consumption in the former Soviet Union. Part of the drop is caused by an increase in wheat used for feed. Increased use of wheat for feeding is also expected to limit growth in EU-25 coarse grain consumption to 1 million tons, less than 1 percent. Sub-Saharan Africa and India are expected to use less coarse grains for food because of reduced production. China is projected to increase consumption nearly 4 million tons as meat production expands and industrial use increases. Most other regions are expected to have slow growth in coarse grains use driven by slowly increasing meat production.

The projected increase in world coarse grains consumption is less than the increase in production. However, in 2004/05, the level of total use is expected to remain larger than production for the sixth consecutive year. Therefore, global coarse grains stocks are expected to continue to decline, dropping 18 million tons. Foreign coarse grains stocks are projected down 16 million tons, with a 21-million-ton drop in China. China's projected coarse grains ending stocks of 23 million tons in 2004/05 are down more than 100 million tons from the level estimated for 1999/2000. China appears to have been intentionally reducing government corn stocks because they are expensive to maintain. Moreover, the forecast ending stocks still represent 3 months of expected use, and this has been enough to maintain only modest corn price increases in China.

Coarse grains ending stocks are projected to increase 3 million tons in the EU-25 and 1 million tons in other Europe as production rebounds, but stay little changed in most other countries.

Coarse Grains Trade Down Slightly in 2004/05, U.S. Exports Up

Global coarse grains trade in 2003/04 is projected at 101 million tons, down 1 million from the previous year. Corn trade is expected to decline nearly 3 million tons to 76 million, but trade of barley, sorghum, oats, and rye are expected to increase.

World corn imports in 2004/05 are projected to decline. EU-25 corn imports are expected to drop 50 percent to 2.5 million, little more than the reduced-levy import quota agreed to when Spain and Portugal joined the EU. For other countries year-to-year changes in corn imports are expected to be small.

Competition among corn exporters is expected to be reduced in 2004/05 because China is expected to export much less. While Argentina is expected to increase corn exports, Brazil and several minor exporters are expected to reduce sales. Most of Hungary's corn is expected to be shipped within the EU-25.

China's corn exports are expected to drop from 15.2 million tons reported for 2002/03, and 8 million forecast for 2003/04, to only 4 million in 2004/05. Despite strong international prices for corn, tightening supplies in China appear to have changed the incentives for the government to subsidize corn exports. China's corn exports in 2004/05 are expected to be the lowest in 6 years.

Because of the drop in China's corn exports, the United States and Argentina are expected to increase exports despite shrinking world trade. U.S. exports (October-September trade year) are projected up 1 million tons to 53 million, the largest since 1995/96.

With a larger supply and prices more competitive compared with corn, U.S. sorghum exports in 2004/05 are projected to reach 5.5 million tons, up 0.3 million from the previous year. While the EU is not expected to purchase significant quantities of U.S. sorghum in 2004/05, strong demand from Mexico is expected. U.S. coarse grains exports in 2004/05 are projected at 59 million tons, up 2 percent from the previous year.

U.S. 2003/04 Corn Export Forecast Raised

The 2003/04 U.S. corn export forecast was increased 1 million tons this month to 52 million tons based on very strong export sales. According to *U.S. Export Sales*, as of May 6, 2004, outstanding sales of corn reached nearly 10 million tons, up dramatically from less than 6 million a year ago. A significant part of the increase in outstanding sales is to "unknown" destinations.

International Charts (Note they still need updating and placing. Also, we are going to add a chart on China Stocks)

Contacts and Links

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Data

The Feed Grains Data Delivery System (<http://www.ers.usda.gov/db/feedgrains/>) is a queryable database that contains monthly, quarterly, and annual data on prices, supply, and use of corn and other feed grains. This includes data published in the monthly *Feed Outlook* and the annual *Feed Yearbook* reports.

Recent Reports From the Economic Research Service

Is China's Corn Market at a Turning Point? Many analysts see signs that China's corn market is reaching the turning point in a decade-long cycle. China curtailed corn exports in calendar year 2004 and may begin to import corn during marketing year 2004/05. Reduced Chinese exports are also driving U.S. prices higher. Higher prices and increased shipping rates have kept U.S. corn out of the China market, but growing demand and limited production capacity will eventually make China a net importer of corn. China's reduction in exports will expand opportunities for U.S. exports. The report is available at <http://www.ers.usda.gov/publications/FDS/may04/fds04C01/DBGen.htm>.

The 2002 Farm Act: Provisions and Implications for Commodity Markets provides an initial assessment of the legislation's effects on agricultural production, commodity markets, and net farm income over the next 10 years. The report is available at <http://www.ers.usda.gov/publications/aib778/>.

The 2002 Farm Bill: Provisions and Economic Implications, a side-by-side comparison of the new farm bill with 1996-2001 farm legislation, is available at <http://www.ers.usda.gov/Features/FarmBill/>.

Related Websites

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

Grain Circular (<http://www.fas.usda.gov/grain/circular/2004/05-04/graintoc.htm>)

World Agricultural Production (<http://www.fas.usda.gov/wap/circular/2004/04-05/Wap%2005-04.pdf>)

Corn Briefing Room (<http://www.ers.usda.gov/briefing/corn/>)

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Table 1--Feed grains: Marketing year supply and disappearance 1/

Year/ Qtr.	Beg. stocks	Produc- tion	Im- ports	Supply	FSI	Feed & resid.	Ex- ports	Total disp.	End. stocks	Farm price
Corn:										
----Million bushels----										
2001/02										
Sep-Nov	1,899	9,503	2	11,404	492	2,199	448	3,139	8,265	1.86
Dec-Feb	8,265	---	2	8,266	482	1,540	448	2,471	5,795	1.96
Mar-May	5,795	---	4	5,799	539	1,166	497	2,203	3,597	1.93
June-Aug	3,597	---	2	3,599	532	958	512	2,002	1,596	2.16
Mkt. yr.	1,899	9,503	10	11,412	2,046	5,864	1,905	9,815	1,596	1.97
2002/03										
Sep-Nov	1,596	8,967	3	10,567	549	1,986	393	2,929	7,638	2.34
Dec-Feb	7,638	---	4	7,642	563	1,547	400	2,510	5,132	2.33
Mar-May	5,132	---	5	5,137	617	1,141	393	2,152	2,985	2.35
June-Aug	2,985	---	2	2,987	611	884	406	1,900	1,087	2.21
Mkt. yr.	1,596	8,967	14	10,578	2,340	5,558	1,592	9,491	1,087	2.32
2003/04										
Sep-Nov	1,087	10,114	2	11,203	598	2,178	473	3,249	7,954	2.17
Dec-Feb	7,954	---	4	7,957	617	1,570	500	2,687	5,271	2.42
Mkt. yr.	1,087	10,114	10	11,211	2,555	5,800	2,050	10,405	806	2.45-2.55
2004/05										
Mkt. yr.	806	10,425	15	11,246	2,680	5,725	2,100	10,505	741	2.55-2.95
Sorghum:										
2001/02										
Sep-Nov	42	514	0	556	6	173	63	242	314	1.86
Dec-Feb	314	---	0	314	6	36	78	120	194	1.84
Mar-May	194	---	0	194	6	29	53	89	105	1.78
June-Aug	105	---	0	105	5	-8	47	45	61	2.25
Mkt. yr.	42	514	0	556	23	230	242	495	61	1.94
2002/03										
Sep-Nov	61	361	0	422	5	134	51	190	232	2.43
Dec-Feb	232	---	0	232	5	17	47	69	163	2.38
Mar-May	163	---	0	163	8	33	40	81	82	2.21
June-Aug	82	---	0	82	6	-15	48	39	43	2.13
Mkt. yr.	61	361	0	422	24	169	186	379	43	2.32
2003/04										
Sep-Nov	43	411	0	454	7	151	61	218	236	2.26
Dec-Feb	236	---	0	236	6	15	56	77	159	2.44
Mkt. yr.	43	411	0	454	25	175	210	410	44	2.45-2.55
2004/05										
Mkt. yr.	44	455	0	499	35	190	225	450	49	2.50-2.90

continued--

Table 1--Feed grains: Marketing year supply and disappearance (cont.) 1/

Year/ Qtr.	Beg. stocks	Produc- tion	Im- ports	Supply	FSI	Feed & resid.	Ex- ports	Total disp.	End. stocks	Farm price
Barley:										
-----Million bushels----										
2001/02										
June-Aug	106	248	8	362	44	62	11	117	245	2.24
Sep-Nov	245	---	5	250	39	9	7	55	195	2.27
Dec-Feb	195	---	6	201	37	17	5	59	142	2.16
Mar-May	142	---	5	147	52	0	3	55	92	2.16
Mkt. yr.	106	248	24	379	172	88	26	286	92	2.22
2002/03										
June-Aug	92	227	9	328	44	54	7	104	224	2.48
Sep-Nov	224	---	3	227	39	11	7	57	170	2.68
Dec-Feb	170	---	5	175	37	6	8	51	123	2.88
Mar-May	123	---	2	125	53	-6	9	56	69	2.85
Mkt. yr.	92	227	18	337	173	65	30	268	69	2.72
2003/04										
June-Aug	69	276	3	349	44	60	3	107	242	2.89
Sep-Nov	242	---	4	246	38	1	9	48	198	2.84
Dec-Feb	198	---	5	203	37	9	6	52	151	2.80
Mkt. yr.	69	276	15	360	172	65	20	257	103	2.85
2004/05										
Mkt. yr.	103	255	20	378	172	80	25	277	101	2.60-3.00
Oats:										
2001/02										
June-Aug	73	118	18	208	17	74	1	92	116	1.29
Sep-Nov	116	---	48	165	17	33	1	50	114	1.59
Dec-Feb	114	---	18	132	15	23	1	39	93	1.92
Mar-May	93	---	12	105	24	18	0	42	63	1.99
Mkt. yr.	73	118	96	286	72	148	2.8	223	63	1.59
2002/03										
June-Aug	63	116	14	193	17	63	0	81	112	1.70
Sep-Nov	112	---	41	152	17	31	1	48	104	1.82
Dec-Feb	104	---	23	127	15	28	1	44	83	2.05
Mar-May	83	---	18	101	23	28	0	51	50	2.01
Mkt. yr.	63	116	95	274	72	150	2.7	224	50	1.81
2003/04										
June-Aug	50	145	21	216	17	66	1	84	132	1.47
Sep-Nov	132	---	28	160	17	23	1	41	119	1.38
Dec-Feb	119	---	20	139	15	28	1	44	95	1.53
Mkt. yr.	50	145	90	284	73	145	2.0	220	64	1.48
2004/05										
Mkt. yr.	64	130	90	284	74	145	3.0	222	62	1.45-1.75

Totals may not add due to rounding.

1/ Corn and sorghum are on a September 1 to August 31 marketing year.

Barley and oats are on a June 1 to May 31 marketing year.

Source: Economic Research Service, U.S. Department of Agriculture.

Table 2--Feed and residual use of wheat and coarse grains

Year beginning Sept. 1	Corn	Sorg.	Barley	Oats	Feed grains	Wheat	Total grains	Animal units	Feed/ animal unit
----- Million metric tons -----								Mil.	Tons
2002/03									
Sep-Nov	50.5	3.4	0.2	0.6	54.7	-2.1	52.6		
Dec-Feb	39.3	0.4	0.1	0.5	40.3	0.3	40.7		
Mar-May	29.0	0.8	-0.1	0.4	30.1	-0.2	30.0		
June-Aug	22.4	-0.4	1.3	1.0	24.4	8.4	32.8		
Mkt. yr.	141.2	4.3	1.5	2.5	149.5	6.5	156.0	88.3	1.77
2003/04									
Sep-Nov	55.3	3.8	0.0	0.4	59.6	-1.3	58.2		
Dec-Feb	39.9	0.4	0.2	0.5	40.9	0.0	40.9		
Mkt. yr.	147.3	4.4	1.3	2.3	155.4	4.7	160.1	89.5	1.79
2004/05									
Mkt. yr.	145.4	4.8	1.7	2.3	154.3	6.2	160.6	87.8	1.83

Source: USDA, Economic Research Service.

Table 3--Cash feed grain prices

	Corn, No. 2, Yel, Ctrl. IL 1/	Corn, No. 2, Yel, Gulf ports 1/	Sorghum, No. 2, Yel, Texas High Plains 1/	Sorghum, No. 2, Yel, Gulf ports 1/	Barley, No. 2, feed, Duluth 2/	Barley, No. 3 or better, Malting, Minn. 2/	Oats, No. 2, Heavy white, Minn. 2/
Mkt. yr.	\$/bu	\$/bu	\$/cwt	\$/cwt	\$/bu	\$/bu	\$/bu
2000/01	1.91	2.29	3.87	4.35	1.47	2.37	NQ
2001/02	1.92	2.28	3.90	4.23	1.52	2.44	NQ
2002/03 3/	2.35	2.72	NQ	NQ	1.89	3.48	NQ
Monthly:							
2002/03:							
Dec.	2.32	2.71	4.68	5.13	2.00	3.95	NQ
Jan.	2.29	2.69	4.55	5.01	2.00	3.94	2.30
Feb.	2.33	2.69	4.54	4.95	2.00	3.77	2.37
Mar.	2.31	2.67	4.39	4.78	2.00	3.81	2.05
2003/04:							
Dec.	2.38	2.84	NQ	NQ	1.80	2.65	NQ
Jan.	2.52	2.95	4.90	5.55	1.80	2.65	NQ
Feb.	2.73	3.12	5.17	5.71	1.80	2.60	NQ
Mar. 3/	2.89	3.26	5.48	5.93	1.80	2.70	NQ

1/ Marketing year beginning September 1.

2/ Marketing year beginning June 1. 3/ Preliminary. NQ = No quote.

Source: U.S. Department of Agriculture, Agricultural Marketing Service.

Table 4--Selected feed and feed byproduct prices

	Soybean meal high protein Decatur, IL 1/	Cotton- seed meal, 41% slv. Memphis 1/	Corn gluten feed, IL pts. 1/	Corn gluten meal, IL pts. 1/	Meat & bone meal, Central U.S. 1/	Dists. ¹ dried grains, Lawrence- burg, IN 1/	Wheat midlgs, Kansas City 1/	Alfalfa farm price 2/
	\$/ton							
Mkt. yr.								
2000/01	174.15	145.17	58.89	248.43	177.19	84.47	61.77	88.90
2001/02	165.53	134.06	59.71	242.86	167.55	78.48	59.31	104.00
2002/03 3/	178.87	147.23	65.27	241.65	170.81	74.94	64.02	100.00
Monthly:								
2002/03:								
Dec.	163.60	156.40	70.00	255.85	160.55	95.00	78.30	98.00
Jan.	167.40	167.50	68.25	239.75	169.80	83.50	70.20	98.50
Feb.	176.80	143.60	66.50	234.00	169.75	82.75	70.65	96.20
Mar.	175.40	142.40	66.25	230.70	180.50	85.00	64.80	96.70
2003/04:								
Dec.	231.54	NQ	109.50	337.50	257.24	128.00	90.26	87.90
Jan.	252.15	188.00	101.63	360.63	118.33	125.00	90.58	83.60
Feb.	265.88	193.00	99.50	371.25	139.81	119.00	80.37	84.70
Mar. 3/	265.88	205.10	83.20	383.00	270.00	120.00	82.34	85.90

1/ Marketing year beginning September 1. 2/ Marketing year beginning May 1. 3/ Preliminary. NQ=No quote.

Sources: U.S. Department of Agriculture, Agricultural Marketing Service and National Agricultural Statistics Service.

Table 5--Corn: Food and industrial uses

Year	HFCS	Glucose	Starch	---Alcohol---		Cereals & other products	Total food & industrial
		and dex.		Fuel	Bev. & Mfg.		
Million bushels							
2002/03							
Sep-Nov	126.6	54.5	63.5	225.9	32.0	46.5	549.0
Dec-Feb	121.1	49.9	63.0	249.3	33.6	46.5	563.3
Mar-May	139.7	56.0	64.1	256.5	35.1	47.0	598.4
June-Aug	144.4	59.0	65.0	263.8	30.3	47.0	609.5
Mkt. year	531.8	219.3	255.7	995.5	131.0	186.9	2,320.2
2003/04							
Sep-Nov	127.6	57.7	65.4	268.7	32.3	46.7	598.4
Dec-Feb	120.4	51.5	65.9	298.1	33.8	46.7	616.5
Mkt. year	535.0	225.0	260.0	1,195.0	132.0	188.0	2,535.0
2004/05							
Mkt. year	541.0	232.0	265.0	1,300.0	133.0	189.0	2,660.0

Source: U.S. Department of Agriculture, Economic Research Service.

Table 6--Wholesale corn milling product and byproduct prices

	Corn meal, yellow, New York	Brewers' grits, Chicago	Sugar, dextrose, Midwest	HFCS, 42% tank cars, Midwest	Corn starch, fob Midwest 3/
	\$/cwt	\$/cwt	cents/lb	cents/lb	\$/cwt
Mkt. yr. 1/					
2000/01	15.85	11.75	16.83	9.25	12.44
2001/02	15.74	11.75	18.61	10.58	12.46
2002/03 2/	16.45	12.86	20.36	11.65	13.21
Monthly					
2002/03:					
Jan.	16.49	12.38	20.88	11.50	12.91
Feb.	16.61	12.50	20.88	11.50	12.82
Mar.	16.42	12.31	20.88	11.50	13.03
Apr.	16.82	12.70	20.88	11.50	13.06
2003/04:					
Jan.	17.21	13.11	21.98	12.74	12.31
Feb.	17.64	13.54	21.98	12.75	12.67
Mar.	17.89	13.79	22.23	12.75	13.21
Apr. 2/	18.42	14.32	21.98	12.75	13.75

1/ Marketing year beginning September 1. 2/ Preliminary. 3/ Bulk-industrial, unmodified.

Source: [Milling and Baking News](#).

Table 7--U.S. feed grains imports by country of origin

Country/region	-----2001/2002-----		-----2002/2003-----		2003/2004
	Mkt. yr.	June-Mar.	Mkt. yr.	June-Mar.	June-Mar.
Oats:			Thousand tons		
Canada	1,138	1,087	843	765	1,040
Finland	264	216	360	310	172
Sweden	217	217	381	307	118
Total 1/	1,654	1,533	1,640	1,414	1,330
Barley, malting:					
Canada	488	422	317	301	234
Total 1/	489	422	360	343	313
Barley, other: 2/					
Canada	32	18.2	42	32	33
Total 1/	32	18.3	42	32	33

1/ Totals may not add due to rounding. 2/ Mainly consists of barley for feeding and also includes seed barley.

Source: Bureau of the Census, U.S. Dept. of Commerce.

Table 8--U.S. feed grain exports by selected destinations 1/

Country/region	-----2001/02-----		-----2002/03-----		2003/2004
	Mkt. yr.	Sept.-Mar.	Mkt. yr.	Sept.-Mar.	Sept.-Mar.
1,000 metric tons					
Corn:					
Japan	14,893	8,004	14,508	8,541	8,690
Mexico	4,464	2,950	5,255	3,518	3,635
Taiwan	4,680	2,739	4,014	2,578	2,992
Egypt	4,468	2,325	2,702	1,145	2,174
S. Korea	1,355	886	270	147	1,199
Canada	3,909	1,987	3,923	2,323	1,295
Colombia	1,698	902	1,585	978	1,123
Venezuela	460	121	608	344	319
Algeria	1,367	932	898	624	867
Saudi Arabia	714	460	131	127	261
Dominican Republic	1,030	576	937	556	413
Israel	832	428	268	68	969
Syria	786	381	517	260	446
Turkey	747	220	981	113	12
Morocco	600	393	76	--	376
Costa Rica	463	251	529	297	335
Tunisia	714	480	123	74	426
Peru	261	156	42	27	58
Iran	63	63	--	--	--
Sub-Saharan Africa	695	252	339	264	110
Former USSR	86	74	--	--	6
Chile	34	24	--	--	19
EU	26	13	8	6	29
East Europe	15	15	--	--	10
China	20	20	--	--	--
Others	3,790	2,456	2,599	1,468	2,769
Total	48,172	27,106	40,315	23,458	28,532
Sorghum:					
Mexico	4,653	3,076	3,194	1,806	1,506
Japan	1,264	886	1,015	821	857
Israel	30	30	39	14	122
EU	9	9	182	--	737
Others	71	28	104	58	73
Total	6,027	4,029	4,535	2,699	3,295
-----2001/2002-----					
-----2002/2003-----					
2003/2004					
	Mkt. yr.	June-Mar.	Mkt. yr.	June-Mar.	June-Mar.
Barley:					
Saudi Arabia	--	--	--	--	113
Japan	293	275	358	256	216
Mexico	70	60	25	20	13
Taiwan	--	--	--	--	--
Canada	94	85	195	161	29
Other	113	97	73	47	141
Total	571	517	650	483	398

1/ Totals may not add due to rounding.

Source: Bureau of the Census, U.S. Dept. of Commerce.