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Feed Outlook

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Record Prices Expected for All Four Feed Grains

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The next release is

June 12, 2008.

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 2008/09 marketing year. Because planting of spring crops is still under way 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, judgment, and the assumption of normal weather.

Forecasted feed grain area planted in 2008, based on the March 31 *Prospective Plantings*, is down 7 percent from 2007. Acres to be planted in corn are expected to be down 8 percent. Total feed grain supplies for 2008/09 are forecast down 6 percent. However, strong domestic use of feed grains, boosted by a 33-percent rise in corn used to make ethanol, is expected to keep ending stocks very low, down 40 percent from 2007/08. With plentiful supplies of distillers' grains from ethanol production in 2008/09, feed and residual use is expected to total 143 million tons for the four feed grains, down from 164 million in 2007/08. Record prices are expected for all four feed grains.

Increased competitors' corn exports, coupled with a decline in world corn imports and high U.S. corn prices, are expected to cut U.S. corn exports 10 million tons in 2008/09 to 53 million. World coarse grains production in 2008/09 is projected up slightly to a record 1.07 billion tons. The increase is driven by high prices that make coarse grains, especially corn, more profitable for many producers than most other crops. World coarse grain consumption in 2008/09 is projected at a record 1.08 billion tons, a year-to-year increase of 1 percent. Foreign consumption is expected to increase 1 percent to 793 million tons, limited by a drop in EU-27 use caused by increased wheat feeding. Healthy economic growth in many countries is supporting meat demand and small increases in coarse grains feed use.

Domestic Outlook

Feed Grain Production Down 26 Million Tons

U.S. feed grain production for 2008/09 is projected at 325 million tons, down from 351 million in 2007/08. This year-over-year decrease stems from smaller projected planted and harvested area for corn, sorghum, and oats. Barley production is expected to increase from that in 2007 because of a slight increase in planted and harvested acres, plus expected higher trend yields.

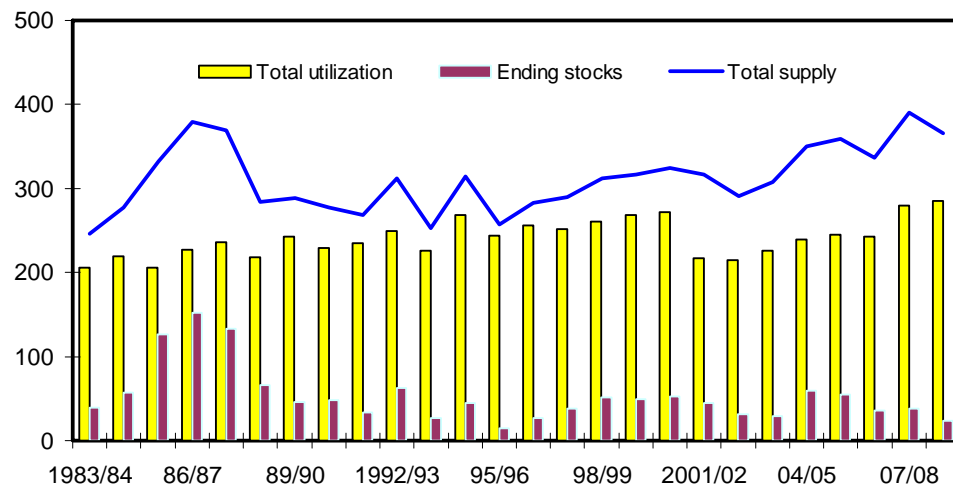
For the four feed grains combined, planted and harvested area is down in 2008/09, and yield is projected higher. Planted area is based on producer intentions reported in the March 31 *Prospective Plantings*. Harvested areas and yields are projected for corn, sorghum, barley, and oats (for more complete descriptions see the following sections for each commodity). Beginning feed grain stocks are 38 million tons in 2008/09, up from 36 million in 2007/08. Total 2008/09 feed grain supply is projected at 366 million tons, down from 390 million.

Feed grain use is expected to decline in 2008/09, despite higher ethanol production. Feed and residual use is expected to decline 21 million tons in 2008/09 to 143 million. High feed prices are expected to encourage more feeders to include distillers' grains in their feeding rations. Exports are expected to slip from 72 million tons in 2007/08 to 58 million in 2008/09. Food, seed, and industrial (FSI) use is projected at 142 million tons in 2008/09, up from 116 million in 2007/08, nearly all on increased corn and sorghum use for ethanol. Ending feed grain stocks are projected to decrease 15 million tons from the 38 million in 2007/08. Record-high prices are expected for all of the feed grains.

Figure 1

U.S. feed grain supply and utilization

Mil. tons



Source: USDA, World Agricultural Outlook Board, WASDE.

Changes to 2007/08 Balance Sheets

Changes were made to corn, sorghum, barley, and oats for the 2007/08 marketing year. Corn used to make ethanol was lowered 100 million bushels, to 3 billion, reflecting lower utilization of existing ethanol plants as reflected in the monthly Energy Information Administration data and various reports of delays in getting new plants in production. Sorghum imports were increased 1,000 bushels, reflecting trade data for the first half of the September-August marketing year. Forecast barley imports were increased 3 million bushels to 23 million, reflecting stronger-than-expected imports in the third quarter of the June-May marketing year. Oats imports were lowered 5 million bushels, reflecting a lower-than-expected pace in the first three quarters of the June-May marketing year. Oats exports were increased 500,000 bushels, reflecting stronger exports to date.

Feed and Residual Down From 2007/08

The 2008/09 feed and residual use for the four feed grains plus feed wheat on a standardized September-August marketing year is projected at 146 million metric tons, down 22 million from the previous year. Feed and residual use per grain-consuming animal unit (GCAU) is projected at 1.56 tons in 2008/09, down from 1.77 tons in 2007/08, in part reflecting higher expected feeding of distillers' grains. Total GCAUs are projected to be down 1 percent over the period to 93.5 million. GCAUs are expected to be down because of reduced numbers of cattle on feed and reduced sow farrowings.

The following is a breakdown of animal production estimates for calendar year 2009:

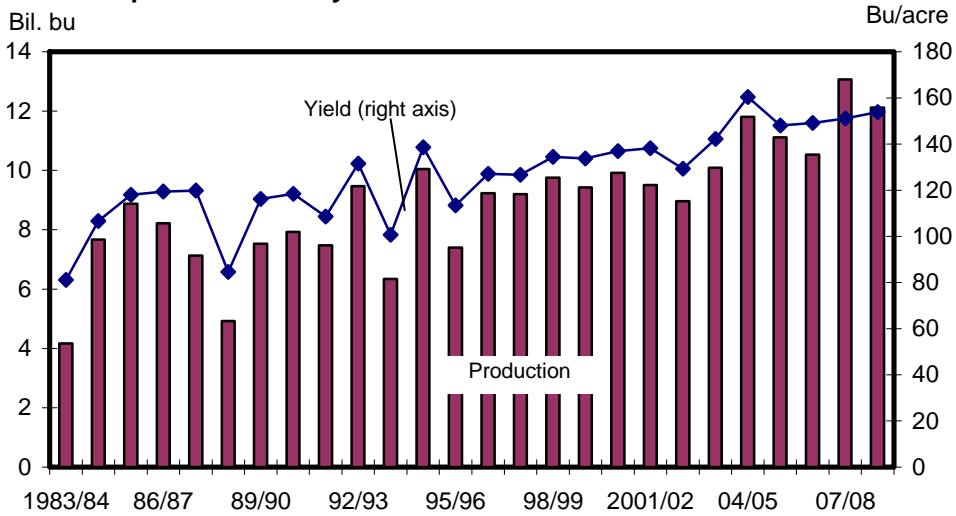
- Beef production is expected to be 26.5 billion pounds, down from 26.8 billion a year earlier,
- Pork production is forecast at 22.9 billion pounds, down 2 percent from 2008,
- Poultry production is projected at 43.3 billion pounds, up from 43.1 billion in 2008,
- Egg production is expected to be 7.6 billion dozen, nearly unchanged from a year earlier, and
- Milk production is expected to be 190 billion pounds, up slightly from 2008.

Corn Production Expected To Decline in 2008/09

The 2008/09 corn crop is projected at 12,125 million bushels, down from the record 13,074 million bushels a year earlier. This year-over-year change stems from a 7.6-million-acre expected decrease in planted area to 86 million acres. Planted area is from the *Prospective Plantings* report. Harvested acreage is based on estimated demand for silage based on roughage-consuming animal units (RCAU) and historical abandonment over the years 2005-07.

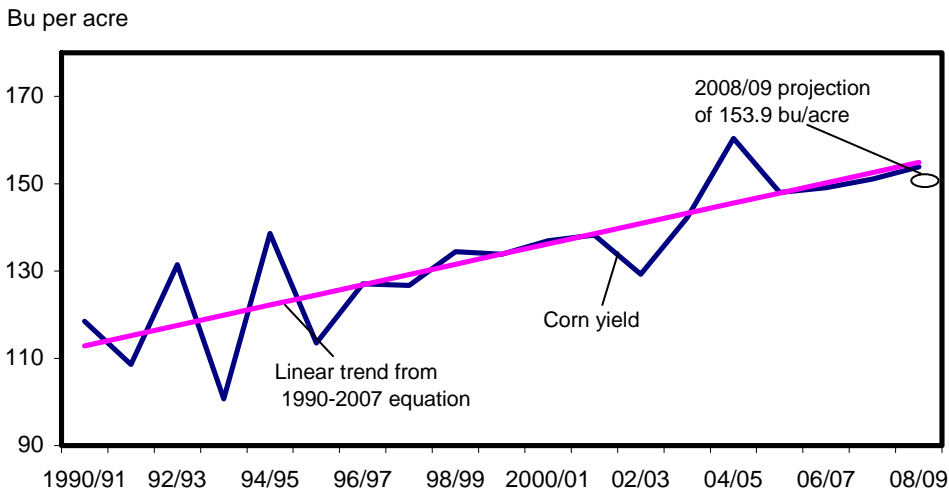
Partly offsetting the decline in area is a 2.8-bushel per acre year-to-year increase in yield. At 153.9 bushels per acre, the 2008 yield is projected 1 bushel per acre

Figure 2
U.S. corn production and yield



Sources: USDA, National Agricultural Statistics Service, *Quick Stats* and USDA, World Agricultural Outlook Board, *WASDE*.

Figure 3
Delayed spring plantings put the 2008/09 corn yield projection below trend



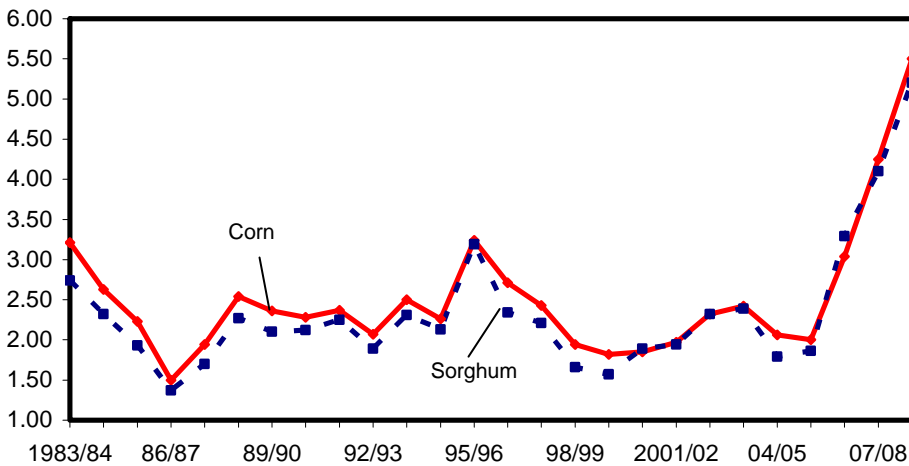
Source: USDA, World Agricultural Outlook Board, *WASDE*.

below the 1990-2007 simple linear trend based on the slower-than-average pace of planting as reported in *Crop Progress*. The projected yield assumes a mid-May planting progress near the 10-year average and reflective of last year's May planting pace.

Figure 4

Annual average farm price for U.S. corn and sorghum

Dol./bu



Source: USDA, National Agricultural Statistics Service, *Quick Stats*.

In recent years, USDA has adjusted its linear trend yield forecast to reflect deviations from normal planting progress using an economic model that includes a trend variable, July rainfall and temperatures, and planting progress as of mid-May. (An earlier version of the model is detailed in “A Corn Yield Model: Indications for 1996” by Paul Westcott, *Feed Outlook*, FDS-0396, March 1996 <http://usda.mannlib.cornell.edu/usda/ers/FDS//1990s/1996/FDS-03-13-1996.asc>.)

This year, the 1990-2007 simple trend yield was adjusted using the same model fit over 1990-2007. As of May 4, 2008, 27 percent of the 2008 corn crop has been planted, down from 45 percent as of May 4, 2007, and down from the 5-year average of 59 percent. However, as last year’s planting pace shows, significant recovery in plantings can occur by mid-May.

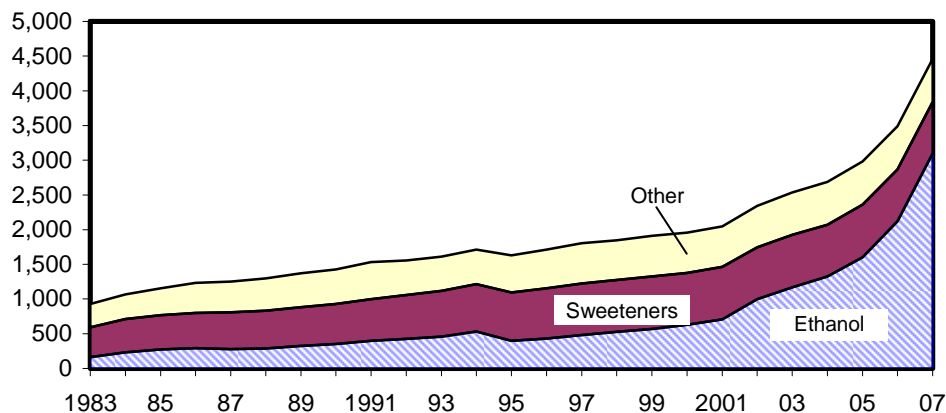
Beginning corn stocks for 2008/09 are forecast at 1,383 million bushels, up from 1,304 million in 2007/08. Total corn supply is expected to be 13,523 million bushels, down 870 million from the previous year.

Total corn use is projected at 12,760 million bushels this year, down from 13,010 million the previous year. This year-over-year decrease stems from decreased exports and feed and residual use, as FSI use is up. FSI use is projected at 5,360 million bushels, up from 4,360 million bushels expected in 2007/08. Increased ethanol production is driving the year-over-year increase. Exports for 2008/09 are projected at 2,100 million bushels, down 400 million from the previous year. Expected record corn prices and record supplies of distillers’ grains are forecast to sharply lower feed and residual use of corn in 2008/09. Corn feed and residual in 2008/09 is projected down 850 million bushels from the 6,150 million bushels expected to be used in 2007/08.

Figure 5

Food, seed, and industrial use of corn

Mil. bu



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

Source: USDA, Economic Research Service, *Feed Grains Database*.

Ending stocks of corn for 2008/09 are projected at 763 million bushels, down from 1,383 million projected for 2007/08. Season-average corn prices for 2008/09 are projected at \$5.00-\$6.00 per bushel, compared with the record \$4.10-\$4.40 per bushel projected for 2007/08.

Food, Seed, and Industrial Use To Continue Growing

FSI use in 2008/09 is expected to increase 23 percent from a year earlier. At the projected 5,360 million bushels, FSI will equal 42 percent of total use, up from an expected 34 percent in 2007/08 and 31 percent in 2006/07. High fructose corn syrup use of corn is projected to be unchanged from the 500 million bushels expected to be used in 2007/08. Record corn use for HFCS was 529 million bushels in 2005/06.

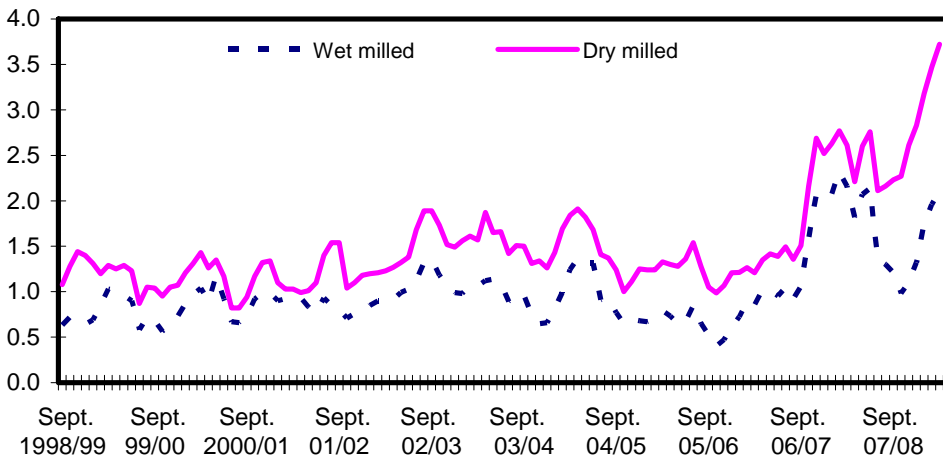
Glucose and dextrose use of corn in 2008/09 is expected to be unchanged from the projected 240 million bushels in 2007/08, which was up fractionally from 2006/07. In 2008/09, corn used to produce starch is expected to be unchanged from projected use in 2007/08. Starch use of corn in the first half of 2007/08 was down 1 percent from the year earlier and for all of 2007/08; starch use is expected to be down nearly 1 percent for the year.

Corn use for ethanol in 2008/09 is projected to increase 33 percent following an expected 42-percent gain in 2007/08. Monthly ethanol production reported by the U.S. Department of Energy (DOE) was record high at 518,000 barrels per day in February 2008 (the latest available data), helping boost first-half 2007/08 production to a record 3,699 million gallons. This ethanol production reflects expansions to existing plants and the new plants that have been added in response to very profitable operations last year.

Ethanol stocks in February 2008, also reported by DOE, were up 20 percent from a year earlier but were down from the record high of 483 million gallons in

Figure 6
**Net corn costs for wet and dry milling, monthly,
 September 1998-April 2008**

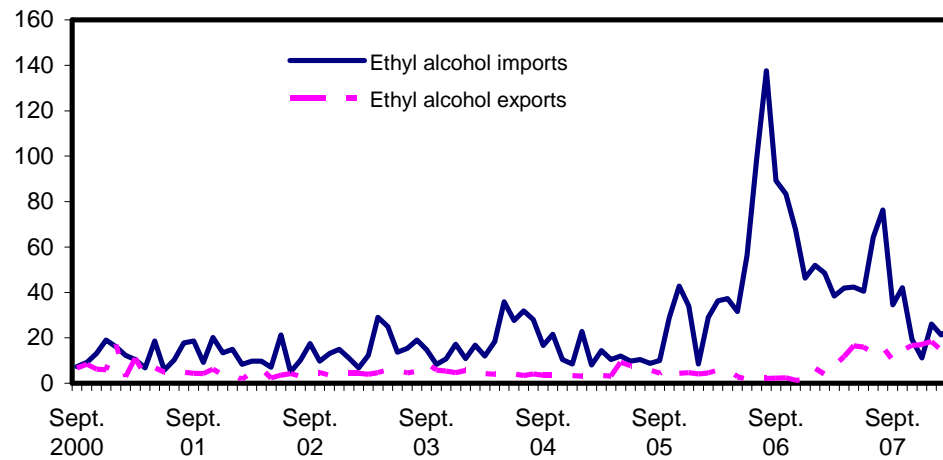
Dol./bushel



Source: USDA, Economic Research Service, *Feed Grains Database*.

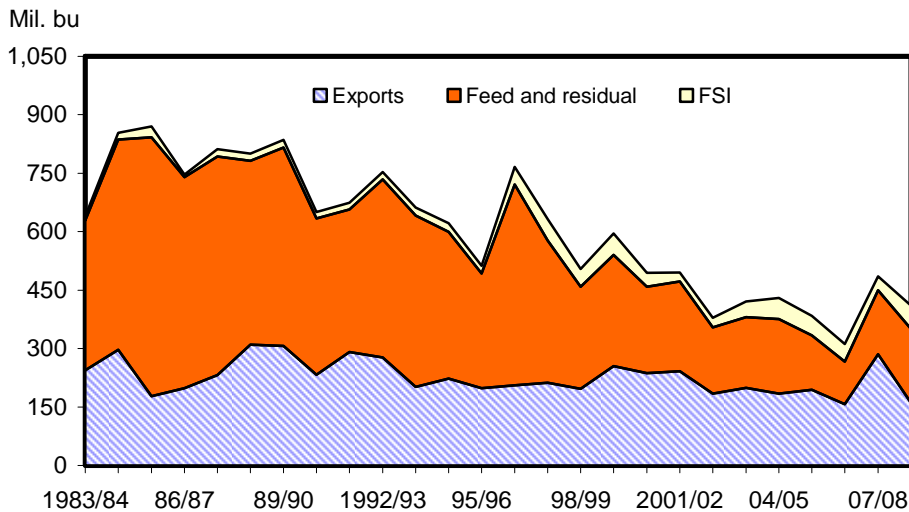
Figure 7
Ethyl alcohol trade, monthly, September 2000-March 2008

Mil. gallons



Source: USDA, Economic Research Service, *Feed Grains Database*.

Figure 8
U.S. sorghum utilization



Source: USDA, World Agricultural Outlook Board, WASDE.

September 2007. Ethanol prices usually move with gasoline prices, and as gasoline and crude oil prices have increased, ethanol prices are stronger.

The cost of corn, the main feedstock for ethanol, has been rising along with co-product prices. As a result, net corn costs are up from their lows in August 2006 before corn prices began increasing.

Ethyl alcohol imports, which can be converted to ethanol, have lagged in 2008 as domestic supplies have increased. Imports were 24.1 million gallons in March. Exports in March were 21.6 million gallons.

Sorghum Supply Projected Lower at 467 Million Bushels

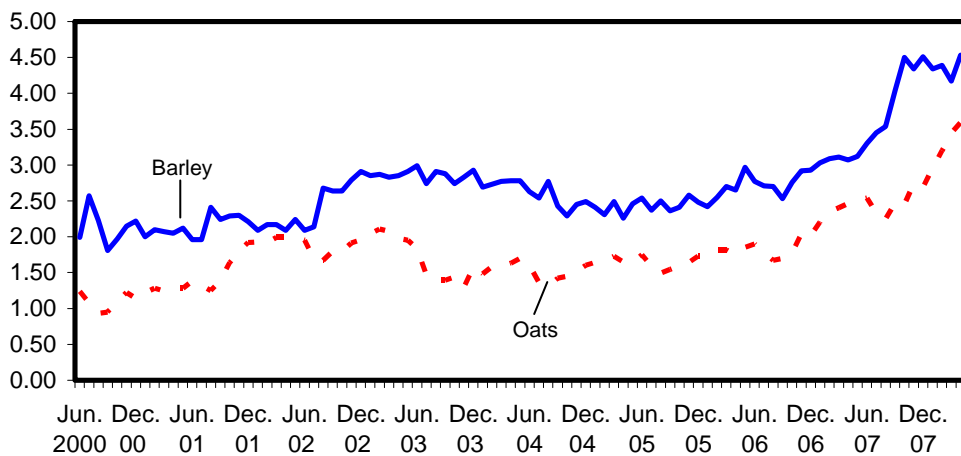
The 2008/09 sorghum crop is projected to be 415 million bushels, down from 505 million in 2007/08. This year-over-year decrease stems from an 8.3-bushel-per acre decrease in expected yield to 65.9 bushels per acre. Projected harvested area is expected to decline 510,000 acres to 6.3 million. The yield projection is based on a 10-year average (1998-2007, excluding 2002 and 2003), adjusted for rounding in production. Planted area comes from the *Prospective Plantings* report, and harvested area comes from the 2004-07 average harvested-to-planted ratio.

Forecasted 2008/09 sorghum beginning stocks are 52 million bushels. Total supply is projected to be 467 million bushels, down from 537 million in 2007/08 due to an expected decrease in production.

Total use is expected to decrease from 485 million bushels in 2007/08 to 410 million in 2008/09. Feed and residual use for 2008/09 is projected at 190 million bushels, up from 165 million in 2007/08. FSI use is projected at 60 million bushels, up from 35 million bushels in 2007/08. This increase stems from

Figure 9
Barley and oats U.S. prices, monthly, June 2000-April 2008

Dol./bu



Source: USDA, National Agricultural Statistics Service, *Quick Stats*.

expectations that sorghum prices will be slightly lower than corn prices, which will increase the use of sorghum in ethanol production. Exports are projected at 160 million bushels, in 2008/09 down 125 million bushels from 2007/08.

Ending sorghum stocks are projected at 57 million bushels in 2008/09, up from 52 million in 2007/08. The 2008/09 season average sorghum price is projected at \$4.70-\$5.70 per bushel, up from the record \$3.95-\$4.25 per bushel projected for 2007/08.

Barley Production To Increase 23 Million Bushels in 2008/09

The 2008/09 barley crop is projected at 235 million bushels, compared with 212 million the previous year. This increase comes from a 127,000-acre increase in planted area, which is projected at 4.15 million acres in 2008/09 and an expected 5.1-bushel per acre yield increase to 65.5 bushels per acre.

Barley planted area is from the *Prospective Plantings* report, and harvested area is based on the 2004-07 average relationship between harvested and planted area. The barley yield is based on the 1960-2007 trend, adjusted for rounding in production.

Barley beginning stocks are 59 million bushels, down from 69 million in 2007/08. Imports for 2008/09 are forecast at 20 million bushels, down from 23 million in 2007/08. Total supply is 314 million bushels, up from 304 million in 2007/08. FSI use is unchanged year-to-year at 145 million bushels, as domestic beer demand is thought to be steady. Feed and residual use for 2008/09 is projected at 65 million bushels up from 60 million a year earlier. Exports are projected at 25 million bushels, down from 40 million in 2007/08. Total 2008/09 barley utilization is projected at 235 million bushels, down from 245 million a year earlier.

Ending barley stocks for 2008/09 are projected at 79 million bushels, up from 59 million in 2007/08. Prices received by farmers for barley in 2008/09 are expected to

average \$5.70 to \$6.70 per bushel, compared with a record \$4.00 per bushel projected for 2007/08.

Oats Production To Decrease in 2008/09

Oats production in 2008/09 is projected at a record low of 90 million bushels, down from 92 million in 2007/08. Area planted and area harvested for grain are both forecast to be the lowest on record. This decline stems from a 340,000-acre decrease in planted acres to 3.42 million. Area harvested for grain is expected to decline 99,000 acres to 1.4 million. Yield is expected to increase 3.1 bushels per acre to 64 bushels per acre in 2008/09. Oats planted area is from the March *Prospective Plantings* report, and harvested area is based on the 2004-2007 average relationship between harvested and planted area. The oats yield is projected based on 1960-2007 trend, adjusted for rounding in production.

Forecast oats beginning stocks are 45 million bushels. Imports are projected at 105 million bushels, down 10 million from the previous year. This puts the total 2008/09 oats supply at 240 million bushels, down from 257 million in 2007/08.

Total 2008/09 oats use is projected at 193 million bushels, down from 212 million in 2007/08. Feed and residual use is projected at 115 million bushels, down 20 million from 2007/08. FSI use is projected at 75 million bushels, unchanged from 2007/08. Exports of oats are projected at 3 million bushels in 2008/09, up 500,000 bushels from the previous year. Ending stocks are expected to be 47 million bushels, up from 45 million in 2007/08. Oats prices are projected at a record \$3.50 to \$4.50 per bushel, compared with \$2.60 per bushel projected for 2007/08.

Hay Stocks Increased in 2007/08

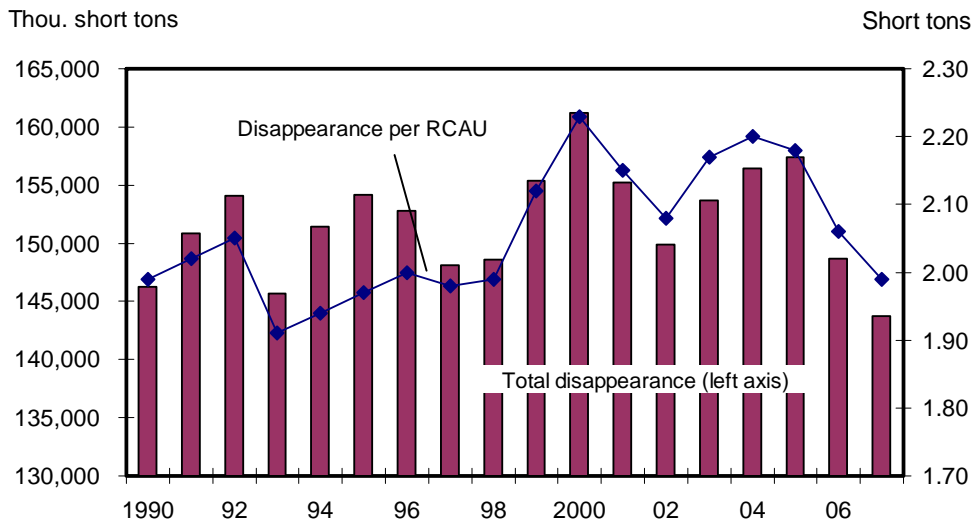
Hay stocks on May 1, 2008, totaled 21.6 million tons, up 44 percent from the previous year. Disappearance of hay from December 1, 2007, through May 1, 2008, totaled 82.4 million tons, 1 percent more than the disappearance of 81.5 million tons for the same period a year earlier. RCAUs for 2007/08 are down 0.01 percent. Hay disappearance for the 2007/08 marketing year (May-April) is down 3 percent from the 2.1 tons consumed in 2006/07.

Silage production in 2007 was up 2.5 percent and, together, hay supply plus silage per RCAU were up 1.5 percent from the previous year. Farmers in March indicated they plan to harvest 60.6 million acres of hay in 2008, down 1.04 million acres from 2007.

Hay stocks increased from last year throughout the entire Great Plains, the Delta, most of the Southeast, and the Rocky Mountain States. Hay stocks increased significantly in Texas and Oklahoma, where weather conditions during the 2007 growing season nearly doubled hay production and improved pasture conditions throughout the year.

Figure 10

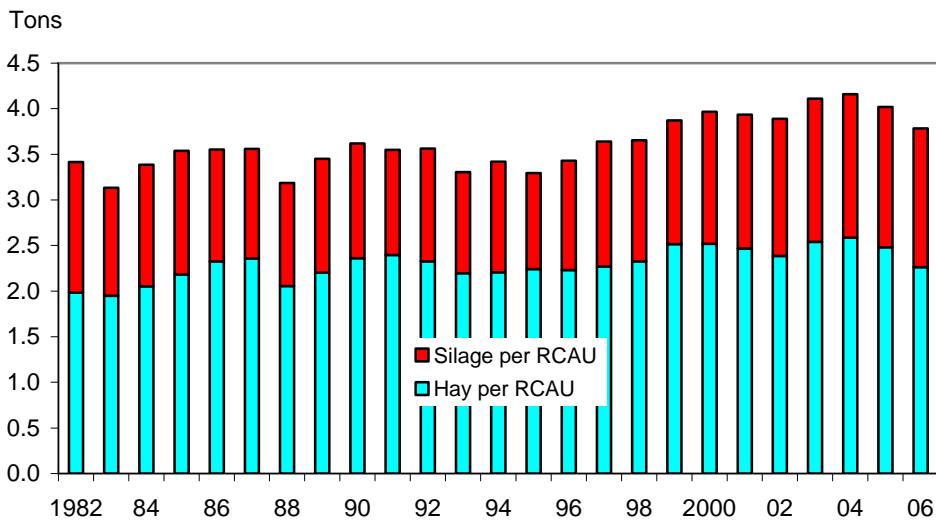
Hay disappearance per RCAU



Source: USDA, National Agricultural Statistics Service, *Crop Production 2007 Summary*.

Figure 11

Hay and silage per RCAU



Source: USDA, National Agricultural Statistics Service, *Crop Production 2006 Summary*.

Lower 2007 hay production in most States east of the Mississippi River, except in the Southeast, held May 1, 2008, hay stocks below those of a year ago. The largest declines occurred in Kentucky, Minnesota, Tennessee, and Wisconsin. In Kentucky and Tennessee, where stocks are less than half those of the previous year,

production was down due to the April 2007 freeze and dry summer weather, so some producers resorted to hauling hay from other States. Wisconsin's May 1 hay stocks are at a record-low level, while Tennessee recorded the lowest May 1 hay stock level since 1962.

Given estimated livestock numbers, current pasture and range conditions, and hay stocks, prices are expected to remain strong in the 2008/09 hay marketing year. The simple average of all hay prices from May 2007 to April 2008 was \$134.50 per ton, compared with \$111.08 per ton during the same period a year earlier.

International Outlook

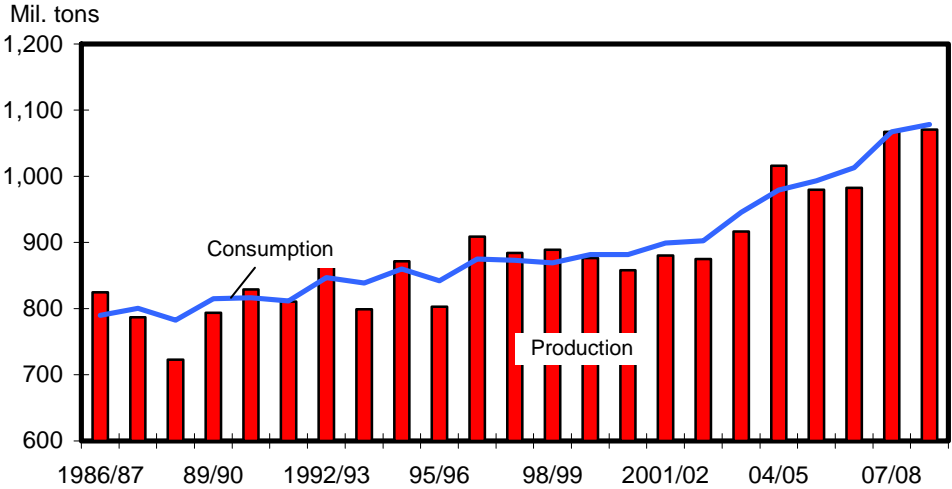
Record World Coarse Grains Production Projected

Global coarse grains production in 2008/09 is projected to reach a record 1.07 billion tons, up slightly from 2007/08 as foreign increases more than offset the expected U.S. drop. World corn production is forecast down 2 million tons to 778 million as the foreign increase does not quite offset the U.S. drop. World barley production is projected up 8 million tons to 142 million, with the largest increase expected in Ukraine. Global sorghum production is expected to decline 2 million tons to 63 million, with foreign production little changed in aggregate. World oats production is expected to continue to decline slightly, but rye production is projected up 13 percent.

China is expected to be the world’s second largest producer of coarse grain, reaching 158.5 million tons. China’s corn area is expected to decline slightly as the price of soybeans is high enough to cause some switching in the Northeast. However, trend yields imply an improvement over the previous year when extensive dryness and heat constrained yields. Corn production is projected to reach a record 150.0 million tons in 2008/09, up 5.0 million from 2007/08. Sorghum production is forecast down, but barley up, due to an expected increase in area planted.

EU-27 coarse grain production is projected up 9 percent to 149.4 million tons in 2008/09. Area harvested for grain is forecast up 0.5 million hectares to 32.7 million. High prices for wheat and oilseeds are limiting planted area for feed grains, but with normal weather, abandonment is expected to be less, especially in countries that suffered severe drought a year ago. Also, average yields are expected

Figure 12
World coarse grain production and consumption



Sources: USDA, Foreign Agricultural Service, *Grain: World Markets and Trade (Grain Circular)*, and USDA, Foreign Agricultural Service, *Grain: World Markets and Trade (Grain Circular)*.

to rebound. EU-27 barley production is forecast up 4 percent to 60 million tons, while corn production is projected up 16 percent to 56.1 million tons, reflecting the greater damage done to the corn crop a year ago. EU-27 oats production is forecast up slightly, to 9.0 million tons, but rye is expected to increase more than 20 percent to 9.3 million.

Coarse grains production in the former Soviet Union (FSU-12) is projected up 14 percent to 61.5 million tons. A return to average yields is expected to boost barley production in Ukraine 4.0 million tons to 10.0 million. Winter barley was hurt in Ukraine and Russia in 2007/08, but spring barley in the eastern production areas of Russia and Kazakhstan had better-than-average yields. A return to average yields boosts barley yield and production in Russia, up 1.4 million tons to 17 million, but implies a decline in expected barley production in Kazakhstan. Improved corn yields are expected for Ukraine, Russia, and Moldova, boosting FSU-12 corn production 2.9 million tons to 16.7 million. Russia's oats area and yield are projected lower, reducing FSU-12 oats production, but FSU-12 rye production is projected up slightly.

South America's coarse grains production is projected to increase 5 percent in 2008/09 to reach a record 101.6 million tons. This is very much a projection as the 2007/08 crop is still being harvested in Brazil and Argentina, and the 2008/09 crop will not be planted for months. Corn prices are expected to be strong enough to encourage an expansion in corn area in Brazil, more than offsetting a return to average yields and boosting production 1.0 million tons to a record 57 million. In Argentina, area is projected flat, as it is unclear what incentives and disincentives producers will face given the ongoing difficulties with government interference in export marketing. A return to trend yields boosts corn production 2 million tons to 23.5 million.

Coarse grains production in Sub-Saharan Africa is projected up slightly to 94.2 million tons. South Africa's corn production is expected to remain unchanged in 2008/09 at 11.5 million tons, with an increase in area offsetting a return to trend yields. Nigeria's production is expected to increase with improved rains.

South Asia's coarse grains production is projected down 6 percent to 41.6 million tons, mostly because of India, where a return to average yields for corn, sorghum, and millet imply a reduction.

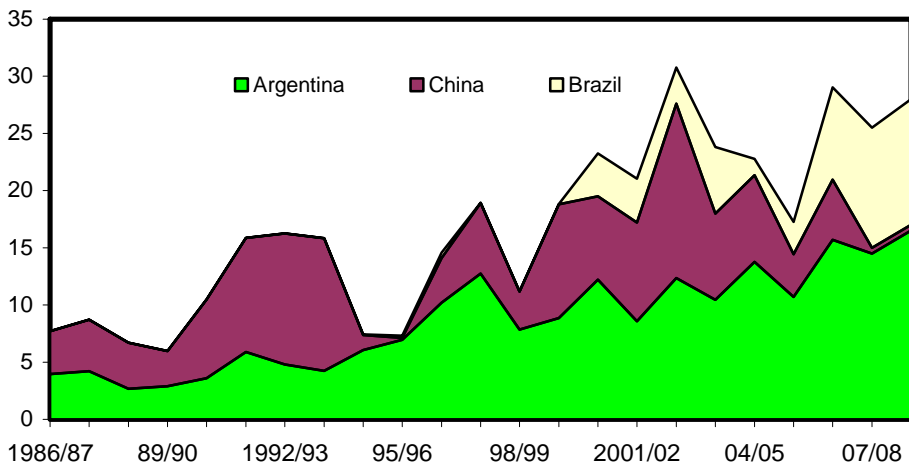
Coarse grains production in the Middle East is projected down 9 percent to 16.6 million tons. Winter rains have been poor across most of the region, reducing barley production prospects. Parts of North Africa also suffered from poor winter rains, and coarse grains production is projected to remain below 10 million tons for the third time in 4 years.

Australia's barley production is projected to rebound from drought, more than offsetting a decline from record sorghum yields in 2007/08. Australia's coarse grains production is projected up 23 percent to 12.2 million tons.

Figure 13

World corn exports of major competitors

Mil. tons



Source: USDA, Foreign Agricultural Service, *Grain: World Markets and Trade (Grain Circular)*, and USDA, Foreign Agricultural Service, *Production, Supply and Distribution (PS&D)*.

In Canada, wheat and oilseeds prices are expected to reduce area for barley, oats, and corn, cutting 2008/09 coarse grains production 10 percent to 25.0 million tons.

Mexico’s corn area and yield are projected up slightly, boosting coarse grains production 1 percent to 30.0 million tons.

World Coarse Grains Use To Grow Slowly in 2008/09

Tight stocks and record high prices are expected to slow the growth in coarse grains use in 2008/09. World use is projected to increase 1.1 percent to 1.08 billion tons, much slower than the 5.3-percent growth forecast for 2007/08. Foreign use is expected to increase more slowly than in the United States, mostly because the EU-27 is expected to feed more wheat and less feed grains in 2008/09. Foreign feed and residual use is expected to increase 1.0 percent, while total foreign coarse grains use increases only 0.8 percent. Coarse grains use other than feed and residual in non-U.S. countries is mostly human food use, and that is expected to grow very slowly, at less than population growth in 2008/09.

EU-27 coarse grains use is projected down 4.2 million tons in 2008/09 to 148.2 million. With a sharp rebound in wheat production, much of which is of poor quality for milling, the EU-27 is expected to increase wheat feeding and reduce imports of corn and sorghum. Canada, with reduced coarse grain production prospects, a strong currency, and a struggling meat production sector, is also expected to reduce feed grains use slightly.

China and Brazil, with record corn crops, are expected to increase coarse grains feed consumption significantly in 2008/09, and most other regions are expected to have modest growth. These increases offset the EU-27 decline in use, leaving foreign use up modestly. However, they do not offset the dramatic drop in projected U.S. feed use, leaving global coarse grains feed use down 2.4 percent in 2008/09.

Global Ending Stocks Projected Down, Foreign Up

U.S. ethanol production is boosting U.S. corn use and reducing stocks sharply, but foreign coarse grains production is projected to grow faster than use in 2008/09, leaving foreign stocks increasing. The U.S. stocks decline is greater than the foreign increase, leaving global coarse grains stocks down 5.7 percent to 127.2 million tons, the lowest in 31 years.

Foreign coarse grains ending stocks are forecast up 7.4 million tons to 104.0 million in 2008/09. The largest increase is for the EU-27, up 3.7 million tons to 19.6 million. Increased production and reduced use will more than offset a sharp projected drop in EU-27 imports. The increase in stocks is expected to be modest because prices are expected to remain high enough to keep government intervention stocks at nearly zero, so the increased stocks are expected to be held by the private sector.

Brazil is expected to increase coarse grains stocks 3.2 million tons, almost as much as the EU-27. With consecutive record crops in Brazil, supplies will be large, but local marketing year coarse grains exports are projected to decline. In 2007/08, Brazil received a large price premium from the EU-27 for its non-GMO corn. With EU-27 imports down sharply in 2008/09, the premium for Brazil's corn exports is

likely to plummet. High transport costs, port congestion caused by soybeans, and strong domestic feed demand will limit Brazil's export prospects and boost ending stocks.

Changes in projected 2008/09 coarse grains ending stocks for other countries are mostly modest.

World Coarse Grains Trade To Decline in 2008/09, U.S. Exports To Drop

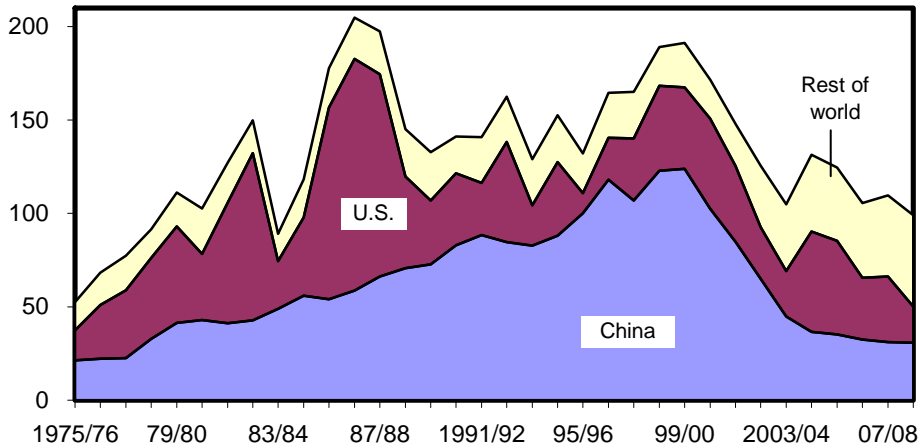
World coarse grains trade in 2008/09 (October-September trade year) is projected to decline 4.4 million tons to 120.1 million. World corn trade is also expected to decline 4.4 million tons, falling to 93.3 million. An increase of 3.0 million tons in barley trade is offset by a similarly sized decline in sorghum trade. Oats trade is projected slightly lower, while global rye trade is expected to increase.

The largest change in projected corn imports for 2008/09 is a 6.0-million-ton drop in EU-27 imports to 7.0 million. With a large grain crop in 2008/09 after consecutive poor crops, EU-27 import demand is expected to fall as wheat feed use increases. The EU-27 drop in imports makes the 0.8-million-ton increase for Mexico and the 0.5-million-ton increase for Canada seem small. Israel is projected to reduce corn imports 0.4 million tons and increase imports of feed-quality wheat. Most other countries are expected to increase corn imports slightly, though some have small declines.

Figure 14

Global ending corn stocks

Mil. tons



Source: USDA, Foreign Agricultural Service, *Grain: Word Markets and Trade (Grain Circular, and* USDA, Foreign Agricultural Service, *Production, Supply and Distribution (PS&D).*

Among corn-exporting countries, Argentina is expected to increase the October-September 2008/09 trade year exports 2.0 million tons to 16.5 million. Shipment delays before October 2008 are likely to boost old-crop corn shipments after October 2008. Brazil is expected to increase 2008/09 October-September corn exports while reducing local marketing year exports. Ukraine is expected to allow much larger corn exports, up 1.5 million tons to 2.5 million. South Africa, with

consecutive good corn crops, is expected to boost exports 0.7 million tons to 2.5 million. Serbia and the EU-27 are expected to increase corn exports from relatively low levels in 2007/08 to 1.0 million tons each in 2008/09. However, China is expected to export only a nominal amount of corn, just as in 2007/08. Paraguay is projected to reduce corn shipments (mostly to Brazil).

U.S. corn exports for the October-September trade year are projected to drop 10 million tons from a record level in 2007/08 to only 53.0 million tons in 2008/09. This would be the lowest level in 4 years. U.S. exports are expected to be constrained by high prices due to strong domestic demand and increased competition.

U.S. sorghum exports for the October-September trade year are also expected to plummet, down 3.0 million tons to only 4.0 million, the lowest in 37 years. EU-27 imports are expected to drop 3.3 million tons to 2.0 million, as large domestic grain supplies reduce the incentives to import. An increase in Mexico's imports is a modest 0.5 million tons to 1.5 million. Without the "cupos" import system limiting corn imports by Mexico, the incentive to import sorghum will be limited; however, without the EU-27 bidding sorghum prices up, some increase to Mexico is expected.

World barley trade is expected to increase 3.0 million tons to 18.0 million. With increased production, Ukraine, Australia, and the EU-27 are expected to increase exports, but with lower production, Canada is expected to lose market share. North Africa and the Middle East are expected to need increased imports due to poor crops. However, U.S. barley exports and imports are expected to decline and remain small.

U.S. oats imports are projected to decline slightly, reducing world trade. Reduced production and supplies in Canada will only be partly offset by increased exports by the EU-27.

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Data

Feed Grains Database (<http://www.ers.usda.gov/data/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.

Related Websites

WASDE (<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1194>)

Grain Circular (<http://www.fas.usda.gov/grain/circular/2008/05-08/graintoc.asp>)

World Agricultural Production (http://www.fas.usda.gov/wap_arc.asp)

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 2/	Feed & resid.	Ex- ports	Total disp.	End. stocks	Farm price
Corn										
----Million bushels----										
2005/06										
Sep-Nov	2,114	11,114	2	13,230	697	2,241	477	3,415	9,815	1.83
Dec-Feb	9,815	---	1	9,816	708	1,647	474	2,829	6,987	1.99
Mar-May	6,987	---	4	6,991	774	1,293	562	2,630	4,362	2.11
June-Aug	4,362	---	1	4,363	802	974	620	2,396	1,967	2.12
Mkt. yr.	2,114	11,114	9	13,237	2,981	6,155	2,134	11,270	1,967	2.00
2006/07										
Sep-Nov	1,967	10,535	1	12,503	799	2,176	596	3,570	8,933	2.62
Dec-Feb	8,933	---	2	8,934	821	1,533	513	2,866	6,068	3.12
Mar-May	6,068	---	5	6,074	918	1,144	478	2,540	3,533	3.44
June-Aug	3,533	---	4	3,537	950	745	538	2,233	1,304	3.37
Mkt. yr.	1,967	10,535	12	12,514	3,488	5,598	2,125	11,210	1,304	3.04
2007/08										
Sep-Nov	1,304	13,074	2	14,380	961	2,444	696	4,102	10,278	3.34
Dec-Feb	10,278	---	3	10,281	1,019	1,764	639	3,422	6,859	4.05
Mkt. yr.	1,304	13,074	15	14,393	4,360	6,150	2,500	13,010	1,383	4.10-4.40
2008/09										
Mkt. yr.	1,383	12,125	15	13,523	5,360	5,300	2,100	12,760	763	5.00-6.00
Sorghum										
2005/06										
Sep-Nov	56.94	392.93	0.00	449.87	12.28	107.22	39.99	159.50	290.38	1.67
Dec-Feb	290.38	---	0.00	290.38	15.51	24.38	57.35	97.24	193.14	1.73
Mar-May	193.14	---	0.00	193.14	11.82	3.68	62.77	78.27	114.86	2.09
June-Aug	114.86	---	0.00	114.86	10.42	4.59	34.20	49.20	65.66	2.48
Mkt. yr.	56.94	392.93	0.00	449.88	50.02	139.87	194.32	384.21	65.66	1.86
2006/07										
Sep-Nov	65.66	277.54	0.00	343.20	13.22	81.37	36.42	131.01	212.19	3.06
Dec-Feb	212.19	---	0.04	212.23	13.23	9.28	47.50	70.01	142.22	3.59
Mar-May	142.22	---	0.00	142.22	13.84	18.64	34.88	67.35	74.87	3.56
June-Aug	74.87	---	0.04	74.91	4.71	-0.29	38.43	42.86	32.05	3.27
Mkt. yr.	65.66	277.54	0.08	343.28	45.00	109.00	157.23	311.22	32.05	3.29
2007/08										
Sep-Nov	32.05	504.99	0.02	537.07	8.50	143.62	93.70	245.82	291.25	3.48
Dec-Feb	291.25	---	0.00	291.25	8.50	8.09	89.09	105.68	185.57	4.13
Mkt. yr.	32.05	504.99	0.02	537.07	35.00	165.00	285.00	485.00	52.07	3.95-4.25
2008/09										
Mkt. yr.	52.07	415.00	0.00	467.07	60.00	190.00	160.00	410.00	57.07	4.70-5.70

continued--

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

Year/ Qtr.	Beg. stocks	Produc- tion	Im- ports	Supply	FSI 2/ Supply	Feed & resid.	Ex- ports	Total disp.	End. stocks	Farm price
Barley										
-----Million bushels----										
2005/06										
June-Aug	128	212	2	342	43	34	10	87	255	2.47
Sep-Nov	255	---	1	256	36	-1	13	48	208	2.45
Dec-Feb	208	---	1	209	33	8	1	42	167	2.48
Mar-May	167	---	2	168	45	10	5	60	108	2.77
Mkt. yr.	128	212	5	346	158	52	28	238	108	2.53
2006/07										
June-Aug	108	180	1	289	40	35	2	76	213	2.72
Sep-Nov	213	---	4	217	33	2	9	44	173	2.74
Dec-Feb	173	---	3	176	34	17	8	59	117	3.00
Mar-May	117	---	4	121	49	2	2	52	69	3.10
Mkt. yr.	108	180	12	300	156	56	20	231	69	2.85
2007/08										
June-Aug	69	212	4	285	45	49	2	96	189	3.47
Sep-Nov	189	---	8	196	31	7	23	61	136	4.26
Dec-Feb	136	---	9	144	28	2	9	40	105	4.42
Mkt. yr.	69	212	23	304	145	60	40	245	59	4.00-4.10
2008/09										
Mkt. yr.	59	235	20	314	145	65	25	235	79	5.70-6.70
Oats										
2005/06										
June-Aug	58	115	20	193	16	64	0.4	80	114	1.55
Sep-Nov	114	---	22	135	17	22	0.4	40	96	1.58
Dec-Feb	96	---	28	124	16	32	0.6	49	75	1.76
Mar-May	75	---	21	96	25	17	0.7	43	53	1.80
Mkt. yr.	58	115	91	264	74	136	2.1	211	53	1.63
2006/07										
June-Aug	53	94	28	174	16	57	1.0	74	100	1.73
Sep-Nov	100	---	34	134	17	18	0.5	36	99	1.82
Dec-Feb	99	---	21	120	16	32	0.5	49	71	2.17
Mar-May	71	---	23	94	25	18	0.6	43	51	2.44
Mkt. yr.	53	94	106	252	74	125	3	202	51	1.87
2007/08										
June-Aug	51	92	21	163	16	58	0.4	75	88	2.31
Sep-Nov	88	---	42	131	17	18	0.8	36	94	2.51
Dec-Feb	94	---	28	122	17	25	0.8	43	79	2.97
Mkt. yr.	51	92	115	257	75	135	2.5	213	45	2.60
2008/09										
Mkt. yr.	45	90	105	240	75	115	3.0	193	47	3.50-4.50

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.

2/ Grain used for food, seed, or industrial purposes.

Source: Stocks and production data from Data and Statistics at

http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp; Trade data from Foreign Trade Statistics, at

<http://www.census.gov/foreign-trade/www/>; and other categories calculated by USDA, Economic Research Service.

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
2006/07									
Sep-Nov	55.3	2.1	0.0	0.4	57.7	-1.3	56.5		
Dec-Feb	38.9	0.2	0.4	0.5	40.1	0.7	40.8		
Mar-May	29.1	0.5	0.0	0.3	29.9	-1.8	28.1		
June-Aug	18.9	0.0	1.1	0.9	20.9	7.7	28.6		
Mkt. yr.	142.2	2.8	1.5	2.1	148.6	5.3	153.9	92.2	1.67
2007/08									
Sep-Nov	62.1	3.6	0.2	0.4	66.3	-3.6	62.7		
Dec-Feb	44.6	0.2	0.0	0.4	45.3	-1.2	44.1		
Mkt. yr.	156.2	4.2	1.2	2.2	163.8	4.0	167.9	94.6	1.77
2008/09									
Mkt. yr.	134.6	4.8	1.1	2.0	142.6	3.0	145.6	93.5	1.56

Source: Calculated by 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
2004/05	1.87	2.43	3.87	4.20	1.74	2.46	1.88
2005/06	2.04	2.67	3.82	4.94	1.70	2.68	1.98
2006/07 3/	3.50	4.06	6.42	7.46	2.60	3.77	2.54
Monthly:							
2006/07							
Dec.	3.53	4.08	6.52	7.66	3.24	4.19	2.81
Jan.	3.66	4.19	6.72	7.91	3.01	4.16	2.78
Feb.	3.90	4.50	7.17	8.15	3.08	4.16	2.65
Mar.	3.76	3.81	6.88	7.78	3.25	4.20	2.84
2007/08							
Dec.	4.03	4.58	8.48	8.96	5.24	6.61	2.95
Jan.	4.55	5.25	7.97	10.25	5.73	6.97	3.24
Feb.	4.91	5.59	8.45	10.04	5.28	7.08	3.66
Mar. 3/	5.16	5.99	8.99	10.64	5.35	7.22	3.82

1/ Marketing year beginning September 1.

2/ Marketing year beginning June 1. 3/ Preliminary.

Source: USDA, Agricultural Marketing Service, <http://marketnews.usda.gov/portal/lg>.

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.								
2004/05	187.80	125.92	52.60	267.78	165.09	75.15	37.40	98.60
2005/06	174.73	143.94	55.45	273.50	150.53	86.56	63.22	104.00
2006/07 3/	198.34	147.98	71.08	336.22	190.79	109.89	81.53	113.00
Monthly:								
2006/07								
Dec.	180.84	152.50	69.88	314.31	183.41	115.00	124.40	111.00
Jan.	190.56	161.00	92.00	333.00	182.37	118.00	120.28	112.00
Feb.	208.81	174.75	85.38	346.88	196.00	129.00	133.71	115.00
Mar.	205.26	185.50	84.94	361.50	220.09	130.88	96.75	121.00
2007/08								
Dec.	314.78	196.67	134.17	540.79	282.34	137.00	137.29	136.00
Jan.	331.28	273.60	135.60	545.00	326.25	157.00	142.36	135.00
Feb.	345.88	292.00	128.75	543.13	375.48	165.00	170.65	138.00
Mar. 3/	331.58	245.00	117.19	561.88	379.78	165.00	129.28	143.00

1/ Marketing year beginning September 1. 2/ Marketing year beginning May 1. 3/ Preliminary.

Sources: USDA, Agricultural Marketing Service, <http://marketnews.usda.gov/portal/lg>, and

USDA, National Agricultural Statistics Service, http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp.

Table 5--Corn: Food and industrial uses

Year	HFCS	Glucose and dex.	Starch	---Alcohol--- Fuel	Bev. & mfg.	Cereals & other products	Total food & industrial
Million bushels							
2006/07							
Sep-Nov	122.8	60.5	69.2	465.9	33.0	47.5	799.0
Dec-Feb	113.9	52.8	65.7	506.2	34.6	47.5	820.6
Mar-May	134.9	62.1	67.5	545.9	36.7	47.7	894.7
June-Aug	138.5	63.6	69.3	599.1	31.7	47.7	950.0
Mkt. year	510.1	239.0	271.7	2,117.1	136.0	190.2	3,464.3
2007/08							
Sep-Nov	119.9	58.2	67.9	634.6	32.9	47.9	961.4
Dec-Feb	112.3	56.0	65.1	703.2	34.7	47.9	1,019.3
Mkt. year	500.0	240.0	270.0	3,000.0	135.4	192.8	4,338.2
2008/09							
Mkt. year	500.0	240.0	270.0	4,000.0	134.0	192.7	5,336.7

Source: Calculated by USDA, 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/					
2004/05	15.95	11.88	23.06	13.07	12.07
2005/06	15.70	11.65	23.68	12.89	12.18
2006/07 2/	18.41	14.30	28.05	15.67	15.37
Monthly					
2006/07					
Jan.	19.02	14.92	28.35	15.88	16.27
Feb.	19.53	15.42	28.35	15.88	16.21
Mar.	19.03	14.92	28.35	15.88	16.81
Apr.	19.02	14.92	28.35	15.88	16.69
2007/8					
Jan.	21.17	17.07	31.55	18.88	14.05
Feb.	21.76	17.65	31.35	19.13	15.49
Mar.	22.06	17.96	31.35	18.88	16.03
Apr. 2/	23.59	19.48	31.35	18.88	16.51

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

Source: *Milling and Baking News*.

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

Country/region	-----2005/2006-----		-----2006/2007-----		2007/2008
	Mkt. yr.	June-Mar.	Mkt. yr.	June-Mar.	June-Mar.
Oats:			Thousand tons		
Canada	1,367	1,154	1,818	1,576	1,660
Finland	137	137	---	---	6
Sweden	67	67	12	12	20
Total 1/	1,572	1,359	1,831	1,589	1,691
Barley, malting:					
Canada	88	70	232	176	488
Total 1/	89	70	232	176	491
Barley, other: 2/					
Canada	28	23	31	20	70
Total 1/	28	23	31	21	70

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

Source: U.S. Dept. of Commerce, Bureau of the Census, at <http://www.census.gov/foreign-trade/www/>.

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

Country/region	-----2005/06-----		-----2006/07-----		2007/08
	Mkt. yr.	Sept.-Mar.	Mkt. yr.	Sept.-Mar.	Sept.-Mar.
Thousand metric tons					
Corn					
Japan	15,950	9,124	15,168	8,309	8,321
Mexico	6,336	3,756	8,768	5,892	6,153
China (Taiwan)	4,652	3,016	4,329	2,466	2,621
South Korea	5,587	2,019	4,038	1,913	4,221
Egypt	4,045	2,015	3,306	2,189	2,353
Colombia	2,704	1,576	3,247	1,997	1,773
Canada	1,882	1,015	2,048	1,121	2,124
Syria	829	378	1,471	957	939
Dominican Republic	1,035	595	1,202	746	599
Algeria	1,235	605	854	616	983
Israel	620	180	800	737	1,050
Guatemala	718	441	747	472	372
Morocco	1,094	521	699	605	868
Costa Rica	682	414	622	411	393
El Salvador	499	297	538	354	282
Cuba	422	256	538	242	461
Venezuela	174	148	515	0	315
Tunisia	394	154	459	372	525
Saudi Arabia	564	212	418	306	961
Ecuador	339	281	418	390	475
Honduras	353	206	371	215	193
Panama	332	177	351	183	199
Turkey	37	37	350	47	414
Jordan	319	140	320	271	147
Chile	299	25	298	298	406
All other countries	3,100	1,196	2,093	1,364	2,238
World	54,201	28,784	53,970	32,473	39,386
Sorghum					
Mexico	3,138	1,982	1,975	1,010	485
European Union-27	67	41	855	508	3,769
Japan	1,161	751	709	564	318
Sub-Saharan Africa	491	243	428	310	380
All other countries	79	40	27	23	301
World	4,936	3,057	3,994	2,415	5,253
-----2005/2006-----					
-----2006/2007-----					
2007/2008					
	Mkt. yr.	Jun.-Mar.	Mkt. yr.	Jun.-Mar.	Jun.-Mar.
Barley					
Japan	179	165	293	285	441
Mexico	32	30	49	47	43
Canada	49	41	40	38	49
Tunisia	59	59	22	22	---
All other countries	287	227	38	34	243
World	606	522	441	425	776

1/ Totals may not add due to rounding.

Source: U.S. Dept. of Commerce, Bureau of the Census, <http://www.census.gov/foreign-trade/www/>.