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Feed Outlook

Tom Capehart

tcapehart@ers.usda.gov

Edward Allen

ewallen@ers.usda.gov

Jennifer Bond

jkbond@ers.usda.gov

Record Feed Grain Production Projected for 2013/14

Special Article:

[Animal Unit
Calculations--
First Projections
for the 2013/14
Crop Year](#)

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will be updated on
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U.S. feed grain production for 2013/14 is projected at 376 million metric tons, up from 286 million in 2012/13. For the four feed grains combined, U.S. planted area is up 1.6 million acres. The 2013/14 corn crop is projected at a record 14.1 billion bushels, 3.4 billion above last season's drought-reduced crop. Yields are forecast to average 158 bushels per acre, down 5.6 bushels from earlier expectations as mid-May plantings are likely to fall well short of the pace seen in recent years. As of the May 6 *Crop Progress* report, 12 percent of the corn crop had been planted in the 18 reporting States, compared with 69 percent last year and 47 percent for the 2008-2012 average. Total corn use for 2013/14 is projected at 12.9 billion bushels, 1.8 billion over 2012/13 but lower than 2009/10 and 20010/11, when total use exceeded 13 billion bushels. Disappearance is projected higher on increased use for feed and residual; food, seed, and industrial use; and exports. U.S. corn exports are expected to rebound to 1.3 billion bushels but remain well below recent year highs due to record global coarse grain supplies and stiff competition from corn produced in Brazil, Argentina, and Ukraine. U.S. corn prices are projected sharply lower, with the 2013/14 midpoint of the price range down 32 percent at \$4.70 per bushel.

Record Feed Grain Production Projected for 2013/14

U.S. feed grain production for 2013/14 is projected at 376 million metric tons, up from 286 million in 2012/13 in a scenario similar to the May 2012 forecast when a record crop was predicted based on early planting progress and favorable spring weather. Those projections were dashed by subsequent drought. This season, the corn crop is expected to recover from last season's drought. Acreage is projected higher for the four feed grains and yields, at 3.74 tons per acre, are up 26 percent over last year. Projected acreage is up for corn, sorghum, and oats and is nearly unchanged for barley.

For the four feed grains combined, U.S. planted area is up 1.6 million acres. Planted area is based on producer intentions reported in the March 30 *Prospective Plantings*. Projected harvested area is based on historical relationships in planted and harvested acreage. Projected yields are based on trend models for barley and oats, an historic average that drops highs and lows for sorghum, and a weather-adjusted trend model that also takes into account May planting progress for corn. Harvested area is projected at 100.5 million acres, up from 96.6 million last season.

Beginning feed grain stocks are projected at 21.9 million tons in 2013/14, the lowest since 1996/97. Total 2013/14 feed grain supply is projected at a record-high 400 million metric tons, slightly over the previous record set in 2009/10.

Total U.S. feed grain use is expected to increase by 49 million tons to 346 million in 2013/14 due to higher feed and residual use; food, seed and industrial (FSI) use; and exports. Year-to-year feed and residual use are projected up 24 million tons, and exports are projected 16 million higher. FSI use is up by 9 million tons. Feed grains used to produce ethanol for fuel is up 7 million tons. Increasing poultry and hog inventories and lower feed prices are expected to boost demand for feed in the livestock industry. The residual component of feed and residual is expected to grow in 2013/14 as production expands sharply. Ending feed grain stocks are projected to advance 33 million tons year-to-year from 2012/13. Average feed grain farm price is expected to decrease 32 percent from this season's record level as supplies grow.

Feed and Residual Likely To Rebound in 2013/14

The 2013/14 feed and residual use for the four feed grains plus wheat on a September-August year is projected at 149.6 million tons, compared with 125.6 million last season. Total grain consuming animal units (GCAUs) are projected 0.25 units lower at 91.9 million units. Higher poultry and hog production was not enough to overcome lower cattle numbers. GCAUs per ton of feed and residual are projected at 1.63 tons per GCAU, compared with 1.37 tons for 2012/13.

Changes to 2012/13 Corn Balance Sheet

Projected corn FSI is increased 48 million bushels as corn used for ethanol is set 50 million bushels higher. Weekly data from the Energy Information Agency shows a resurgence in ethanol production spurred by favorable margins for ethanol producers as corn prices moderate. In addition, corn used for seed was updated,

slightly lowering FSI. Exports are lowered 50 million bushels based on the year-to-date pace. The resulting 2-million-bushel reduction in use increases ending stocks to 759 million bushels.

This month's 2012/13 average farm corn price range is reduced 5 cents on the high end of the range and increased 5 cents on the low end, leaving the projected range at \$6.70 to \$7.10 per bushel.

Record Corn Plantings, Improved Yield Boost Production Forecast

The 2013/14 U.S. crop is projected at a record 14.1 billion bushels, 3.4 billion above last season's drought-stricken crop. Yields are set at 158 bushels per acre, 5.6 bushels below the weather-adjusted trend presented at USDA's Agricultural Outlook Forum in February due to delayed planting through early May. Planting progress by mid-May is expected to remain well below the 10-year average, supporting this month's lower yield projection. As of the May 6 *Crop Progress* report, 12 percent of the corn crop had been planted in the 18 reporting States, compared with 69 percent last year and 47 percent for the 2008-12 average. Unseasonably cold weather, in combination with heavy rains in April, has delayed field work.

Beginning corn stocks for 2013/14 are forecast at 759 million bushels, the smallest since the beginning of the 1996/97 marketing year as stocks have declined over the 3 preceding years. This season's beginning stocks are 230 million bushels below 2012/13. With the largest plantings since 1936, total supply is expected to be 14.9 billion bushels, up 3.0 billion from the current season and also a record high, exceeding the 2009/10 supply estimate by 151 million bushels.

Use Forecast Indicates End to Severe Corn Rationing

Total U.S. corn use for 2013/14 is projected at 12,920 million bushels, 1,785 million over 2012/13 but lower than 2009/10 and 2010/11, when total use exceeded 13 billion bushels. Disappearance is projected higher on increased use for feed and residual, FSI, and exports. Projected feed and residual disappearance is projected at 5,325 million bushels, 925 million over 2012/13. FSI gains 310 million bushels as ethanol takes more corn, and exports are projected up 550 million from the current year projection of 750 million bushels. One indication of an easing of the intense rationing that has characterized the corn market since early last summer is a 1,785-million-bushel gain in total corn used.

Ending stocks of corn for 2013/14 are projected at 2,004 bushels, 1,245 million bushels higher than the 2012/13 projection. At 15.5 percent, the stocks-to-use ratio is projected to recover from very low levels seen since 2009/10.

Price Retreats From Record High Last Season on Greater Supply

The 2013/14 season-average farm price is projected at \$4.30 to \$5.10 per bushel, compared with \$6.70 to \$7.10 for 2012/13. Lower prices are forecast on the basis of higher production, moderately higher use, and record global supplies.

Significant Sorghum Production Increase Forecast for 2013/14

Doubled-digit percentage increases in projected 2013/14 planted area, harvested acres, and yields combine to expand U.S. sorghum production by more than 70 percent relative to 2012/13 figures. At 425 million bushels, forecast sorghum production is 178 million bushels larger than last year's estimated output. Improving market and cultivation conditions have resulted in an 8-percent increase in the 2013/14 production estimate over the initial February 2013 forecast released in *USDA's Agricultural Projections to 2022*.

Much of the anticipated expansion in sorghum production comes from Kansas and Texas, where planted area is projected to collectively represent 77 percent of the U.S. total. Smaller gains in planted area are forecast for a number of the other top 14 sorghum-growing States, including Arkansas, Colorado, Georgia, Missouri, Nebraska, Oklahoma, and South Dakota. Additional contributions to total planted area may come from less likely sources, including Virginia, Florida, and California, where regional demands for sorghum related to hog and ethanol production are expected to encourage increased plantings.

As a result of anticipated expansion in production in a number of States, total supply is expected to increase by 165 million bushels over 2012/13. The projected expansion is the largest year-to-year growth since the 1996/1997 marketing year, when total supplies grew by 283 million bushels. In percentage terms, the 58.5 percent expansion in supplies from 2012/13 to 2013/14 represents the largest year-to-year increase on record.

With production expected to provide sufficient domestic supplies, imports for 2013/14 are forecast to once again be negligible. The 2012/13 imports figure, however, is raised to 12 million bushels, a 9-million-bushel-increase over last month's estimate, on indications of South American shipments. The imported sorghum is anticipated to be used, at least in part, in hog feed rations, and 2012/13 feed and residual use is increased accordingly. Aided by the higher imports, sorghum carry-in for 2012/13 is raised 4 million bushels this month, to 22 million. This ending stock figure is the lowest since 1995/96, when ending stocks totaled 18.

Total use for 2013/14 is boosted by 50 percent over 2012/13; a sizeable portion of the increase is attributable to anticipated growth in sorghum ethanol production. Industry sources indicate that one or more ethanol production facilities will expand the use of sorghum as a feedstock over the coming months. FSI use in 2013/14 is maintained at 2012/13 levels in other categories and reflects expectations of sufficient hybrid seed availability.

Earlier this year, a Texas-based hybrid sorghum seed firm announced agreements with distribution companies based in Colorado and Kansas. The agreements expand availability of premium and highly drought-tolerant sorghum hybrids in the Great Plains area. Improved regional access to high-quality seed supports expanded production in sections of the United States that are prone to hot, dry summers.

U.S. sorghum exports in 2013/14 are projected up 70 million bushels from 2012/13, to 150 million bushels, rebounding to near the 2010/11 level. Sorghum prices are expected to be attractive to Mexican buyers.

U.S. ending stocks for 2013/14 are forecast at 57 million bushels, a 160-percent increase over 2012/13 levels and the highest forecast since 2005/2006, when ending stocks totaled 66 million. The 2012/13 season-average sorghum farm price range is raised \$0.05 on the low-end and lowered by a similar amount on the high-end. The midpoint of the 2012/13 price range remains unchanged at \$6.85 per bushel. In consideration of increased sorghum and corn production, as well as lowered forecast corn prices, the 2013/14 season-average price range is \$3.90 to \$4.70 per bushel, with a midpoint of \$4.30 per bushel.

According to the most recent USDA-NASS *Crop Progress* report, sorghum planting progress is similar to last year's pace in Texas and ahead of pace in Louisiana but behind in Arkansas. Cooler weather resulted in only a 29 percent gain in sowings over the previous week. With 29 percent of the sorghum crop sowed as of May 12, the 11-State planting figures are on par with the 5-year average. Weather damage to the winter wheat crop may facilitate later season plantings of sorghum on some acres.

Barley Production Virtually Unchanged

The U.S. barley crop is projected at 220 million bushels in 2013/14, on par with the estimated 2012/13 crop. Planted area is forecast at 3.6 million acres, with harvested area forecast at 3.2 million; both figures are slightly lower than the previous crop year's estimates. Yields are up 0.9 bushels per acre at 68.8 bushels per acre, compared with 67.9 bushels per acre in 2012/13. Planting delays due to cold, wet conditions in the northern United States have the potential to impact all of the above figures.

Barley beginning stocks are expected to be 74 million bushels in 2013/14, up from 60 million estimated for 2012/13. Imports are forecast to be down by 3 million bushels as fewer foreign supplies are purchased to service domestic needs.

Use categories in 2013/14 are largely expected to be similar to 2012/13 figures. Notably, feed and residual forecast at 75 million bushels is raised 10 million bushels from the 2012/13 figure. If realized, the projected feed and residual use figure will be the highest since 2004/05, when the category totaled 103 million bushels. The increase is supported by expectations of significant barley feeding in the first quarter of the barley marketing year (June-August), as supplies of other feed grains, especially corn, will be tight.

FSI use is unchanged year-to-year at 155 million bushels, as domestic beer demand is expected to be comparable with 2012/13 levels. Exports are projected at 10 million, 1 million bushels higher than the 9 million expected for 2012/13. The 2012/13 export forecast is up 1 million bushels from last month's projection of 8 million.

Prices received by farmers for barley in 2013/14 are expected to average \$5.30 to \$6.30 per bushel with a mid-point of \$5.80 per bushel. This compares with the average \$6.40 per bushel price received by farmers in 2012/13. If planting delays persist, the 2013/14 barley harvest may be correspondingly delayed; increasing the risk of frost exposure and damage. Frost damage is associated with reduced malting quality, and lower quality malting barley will receive lower premiums. Maltsters

may choose to offset risks of reduced quantity and quality by increasing the number and geographic diversity of offered contracts. The net effect on national average prices, if any, will not be clear until much later in the season.

2013/14 Oats Production Forecast To Be Third Smallest on Record

U.S. oats production is projected at 73 million bushels in 2013/14, up from 64 million in 2012/13. According to the March USDA-NASS *Prospective Plantings* report, this increase stems from sizeable growth in planted area for Texas (100,000 acres), North Dakota (60,000 acres), and Nebraska (60,000 acres). Yields per harvested acre are forecast to increase by 2.2 bushels per acre, up from last year's drought-affected estimate of 61.3. Area harvested for grain is expected to increase by approximately 100,000 acres over the 2012/13 estimate of 1.05 million acres.

Forecast carry-in is 32 million bushels for 2013/14 and is the lowest level on record. Imports will augment some of the tightness of domestic supplies, and the figure is projected to be up 5 million bushels from 2012/13 to 95 million. Canada is expected to increase production of heavy white oats. The increase in Canadian supply is likely to contribute to growth in exports to the United States, primarily for use in equine feed and human food industries. Total U.S. oats supply for 2012/13 is estimated at 200 million bushels. Despite the year-to-year expansion in production, historically low beginning stocks result in a record-low projected total supply for 2013/14.

Total 2013/14 oats use is projected at 160 million bushels, down from 177 million in 2012/13. At 80 million bushels, feed and residual use is 20 million bushels lower than the previous year's forecast. FSI use is projected at 77 million bushels, a slight increase from 2012/13. Exports of oats are projected at 3 million bushels. Ending stocks are expected to be quite tight again in 2013/14 though the forecast is 8 million bushels larger than projected for 2012/13. However, at 40 million bushels, the 2013/14 projection is the second lowest on record behind the record low of 32 million realized in 2012/13.

Oats prices for 2013/14 are projected at \$2.70 to \$3.30 per bushel, with a mid-point of \$3.00. This compares with the season-average farm price of \$3.85 per bushel for 2012/13, an increase of \$0.05 cents over the April forecast.

Hay Stocks Report Indicates Tight Supplies

The May 10 USDA-NASS *Crop Production* report indicates that U.S. hay stocks on farms on May 1, 2013, totaled 14.16 million tons. This is the lowest May 1 stocks level on record and is 7.23 million tons lower than the May 1, 2012, stocks level. The December 1, 2012, stocks figure was the lowest mid-season estimate since 1957. Despite low periodic stocks figures, December-May disappearance for the 2012/13 crop year is down almost 7 million tons relative to the 69.3 million that disappeared over the same time period last year. In fact, December-May disappearance for the 2012/13 crop year is the lowest since 1978/79; thus, high prices and tight supplies are working to restrict hay feeding.

Hay prices reflect the scarcity of available supplies; the average all-hay price for April is \$200 per ton, with significantly higher prices reported for premium hay lots in various auction markets around the United States. Unadjusted for inflation, this is the highest April all-hay price on record and is \$59 per ton higher than the average April price in 2008-12.

Prices are likely to remain strong through the beginning of the 2013/14 marketing year and until there is greater clarity on the anticipated size of production. Some alfalfa winterkill has been reported though potential losses may be offset with the addition of acres gained by plantings and production in locations that have seen soil moisture levels rise with the prolonged cool and wet spring.

Record World Coarse Grain Production Expected in 2013/14

The expansion of foreign coarse grain production prospects for 2013/14 is sustained by strong prices supporting plantings and mostly favorable weather for winter grains across most of the Northern Hemisphere. While a cold, late spring has delayed spring grain planting across much of the Northern Hemisphere, moisture conditions in most places are favorable. Global coarse grain production in 2013/14 is projected to increase 125.0 million tons over that in 2012/13, reaching 1.25 billion. While the U.S. is expected to lead the increase, foreign coarse grain production is also expected to reach a record 877.3 million tons, up 35.0 million.

Foreign corn production in 2013/14 is forecast up 4 percent, or 23.5 million tons, to a record 606.8 million tons. Foreign barley is expected to increase slightly faster than corn, up 6 percent, or 8.0 million tons, to 133.1 million; and oats is up 7 percent to 21.4 million, while rye is increasing 7 percent to 15.1 million. Growing more slowly is foreign sorghum, up 2 percent to 51.9 million tons, millet up 1 percent to 33.5 million, and mixed grain up 1 percent to 15.5 million.

China is the largest foreign coarse grain producer, with 2013/14 production projected to reach 218.5 million tons, up 2 percent. Corn dominates with expected record production of 212.0 million tons. Corn harvested area is forecast up 3 percent, supported by government procurement prices and other subsidies. However, the assumed return to normal weather means growing conditions would not be as favorable as a year earlier, and average yields of all coarse grains are projected slightly below a year ago. Production of barley, sorghum, millet, and oats is expected to decline slightly.

EU coarse grain production is projected up 6 percent to 151.6 million tons. Corn and barley harvested area are forecast down slightly due to expanded wheat, mixed grain, and rye area. Most of the increase in expected production is due to corn, up 7.2 million tons to 63.8 million, based on improved yields. A rebound from the previous year's drought across much of Southern Europe is expected in 2013/14. EU barley area is expected to decline 2 percent as expected returns are not as attractive as alternative crops, but the area reduction is expected to be more than offset by good yields supported by favorable winter barley growing conditions. Rain in Spain has been exceptionally good and winter-kill minimal across the EU. However, with reduced area, barley production is projected up only 0.9 million tons to 55.3 million. EU mixed grain, oats, and sorghum production prospects are up slightly, but rye is down fractionally as yields in Poland are not expected to match year-ago levels.

South America's 2013/14 coarse grain crop is projected to reach 125.1 million tons, down 4 percent, mostly due to reduced Brazilian corn and Argentine barley. Planting for Brazil's 2013/14 corn crop starts in September and October 2013 for the first crop, with harvest and the marketing year beginning in March 2014. The second corn crop is planted mostly after soybeans in January and February 2014. By the time those crops are planted, the corn price is expected to drop relative to prices of other crops. Some first-crop corn is likely to shift to soybeans. Moreover, record corn yields are not expected if weather returns to normal. While down 4.0 million tons from record production for the current year, the projected 72.0 million

corn crop is still more than double production of just 9 years ago. Brazil's production prospects for sorghum, oats, and barley are little changed from 2012/13.

Argentina's coarse grain production is projected down slightly in 2013/14 as modest increases for corn and sorghum are more than offset by a drop in barley. Barley will be planted mostly around June 2013 in competition with wheat. However, in 2012/13, producers made better profits on wheat than on barley and a significant shift back to wheat is expected. Barley production is projected to drop 27 percent to 4.0 million tons. Argentina's corn production is expected to increase 0.5 million tons to 27.0 million, with area stable and a small trend yield increase. Argentine sorghum production at 5.4 million tons is projected to be the largest since 1984/85. South America's other important coarse grain producers are Paraguay, projected at 2.9 million tons, down slightly due to a return to normal corn yields; Chile, up fractionally at 2.3 million; Colombia, up slightly to 2.0 million; Peru, increasing to 1.8 million; and Venezuela, down slightly to 1.4 million.

Sub-Saharan Africa's coarse grain production in 2013/14 is projected to reach 101.7 million tons, about the same as in 2012/13, as numerous changes in country-level projections are offsetting. Nigeria is projected to produce 21.9 million tons, up 0.6 million with a rebound in sorghum. Improved corn yields in South Africa are expected to increase coarse grain production 0.8 million tons to 13.5 million. Small yield increases across all coarse grains are boosting Ethiopia's production prospects 0.2 million tons to 11.6 million. However, for Tanzania, Sudan, and several countries across the Sahel, yields are not expected to match those of 2012/13, when rains were better than normal.

The former Soviet Union's (FSU) coarse grain production is expected to rebound from the previous year's drought and winter-killed crop. Production is projected up 19 percent to 82.4 million tons. Russia (36.1 million tons) is forecast slightly higher than Ukraine (34.6 million), a reversal of the previous 3 years. Russia's barley crop is projected up 3.5 million tons to 17.5 million, with yields rebounding 16 percent. Corn area is continuing to expand, and trend yields provide support, boosting projected production 1.3 million tons to 9.5 million. Favorable winter growing conditions boost rye production prospects 1.4 million tons to 3.5 million, with smaller increases for oats and millet.

Ukraine's coarse grain production in 2013/14 is forecast up 17 percent. Corn area is expected to continue to expand, up 8 percent, despite less winter kill of fall-planted crops. Extensive winter kill affected the 2012/13 winter crops, boosting spring plantings a year ago. Area for other 2013/14 spring-planted coarse grains--barley, oats, sorghum, and millet--are expected to decline slightly. Corn yields are expected to rebound from dryness and heat a year ago, boosting production 5.0 million tons to a record 26.0 million, 14 percent above the previous record in 2011/12. A historical series for sorghum production and use has been added as Ukraine has emerged as an exporter.

In Belarus, a return to normal weather implies lower yields for all coarse grains, cutting production 12 percent to 4.7 million tons. However, normal rains would boost barley yields in Kazakhstan and corn in Moldova, boosting coarse grains 0.5 million tons to 2.9 million in Kazakhstan and 1.0 million to 1.7 million in Moldova.

South Asia's coarse grain production is projected up 3 percent to 47.3 million tons. India is increasing a little faster than the rest, up 1.6 million tons to 40.5 million. A normal monsoon season is expected to support a significant rebound in millet area but leave corn little changed. Sorghum yields are forecast up. Expected millet and sorghum production increases, but corn is stable. Pakistan's mostly irrigated coarse grain crop is expected to be stable at 3.6 million tons.

Southeast Asia's coarse grain crop is forecast up 4 percent to 30.6 million tons. The combination of strong world prices and adoption of higher yielding varieties is expected to produce record corn crops across much of the region. Indonesia's corn area and yield are each expected to increase slightly, boosting production 2 percent to a record 9.2 million tons. A trend increase in Philippine corn yields boosts them to record levels, increasing production 0.3 million tons to 7.4 million. Vietnam and Thailand are each expected to produce a record 4.9 million tons of coarse grain (nearly all corn), and Burma a record 2.0 million.

Mexico's coarse grain production in 2013/14 is projected up 1.4 million tons to 30.5 million. Corn area is expected to increase as water levels in the reservoirs that provide for crop irrigation return to normal. Corn area is expected to rebound to 2010/11 levels. A trend yield increase puts corn yields at a record 3.33 tons per hectare, boosting production 1.5 million tons above those of the previous year. A small reduction in sorghum area and barley yields limits coarse grain production.

Canada's coarse grain crop is projected up 1.5 million tons to 25.8 million. Oats and corn area are expected to expand, and barley yields are forecast to rebound. These factors boost corn production 0.7 million tons to 13.8 million, barley production up 0.5 million to 8.6 million, and oats production up 0.4 million to 3.1 million. These increases more than offset small declines for rye and mixed grain.

Middle East coarse grain production is forecast up 2.0 million tons in 2013/14 to 20.5 million. Fall and winter rains at the end of 2012 and beginning of 2013 were exceptionally abundant across most of the region. Turkey's barley yield is forecast to rebound to near the 2011/12 level, boosting production 1.6 million tons to 7.1 million. Turkey's corn crop, a mostly irrigated summer crop, is projected up 0.1 million tons to 4.5 million. Iran is having another year of favorable growing conditions, but economic problems may limit inputs. Coarse grain production is projected to match the previous year at 5.2 million tons. In Syria, the war creates uncertainty, but growing conditions and satellite imagery confirm a large crop, with barley production expected to increase, boosting coarse grain production to 1.1 million tons. In Iraq, a big barley crop is forecast to more than offset a decline in corn area, boosting coarse grain production to 1.1 million tons.

Other Europe, mostly Serbia, is projected to see a 50-percent growth in coarse grain production in 2013/14 to 12.3 million tons, as corn yields rebound from devastating drought in 2012/13. Corn yields are also expected to rebound in Croatia and Bosnia.

North Africa's coarse grain production is expected to increase 15 percent in 2013/14 to 12.0 million tons. Morocco's barley yields are projected sharply higher with abundant winter rainfall boosting production 1.4 million tons to 2.6 million. Barley yields and production are also up modestly for Algeria and Tunisia, but in

Egypt coarse grain production is projected to decline slightly as some corn area shifts to more profitable rice.

Tight Beginning Stocks Limit Supply Increase in 2013/14

Global coarse grain supplies for 2013/14 are projected up 113.8 million tons to 1,407.6 million. Increased production prospects are partly offset by lower beginning stocks. Most of the increased supplies are in the United States, with foreign supplies up 32.5 million tons.

World coarse grain beginning stocks for 2013/14 are forecast at 154.3 million tons, down 11.3 million from a year earlier. More than half the decline is in the United States, with foreign stocks down 5.4 million tons to 132.4 million. With prevailing coarse grain prices at record highs in most places in 2012/13, it is not surprising that many users drew down stocks, minimizing expensive purchases.

However, there were some important exceptions. China's coarse grain stocks are estimated up 4.1 million tons to 64.3 million. A huge record corn crop in 2012/13 is allowing China to reduce imports and build corn stocks. However, a significant portion of those stocks reportedly have quality problems, so stock levels, storage losses, and other uses are uncertain as China does not publish these figures. What is clear is that corn prices in China remain higher than prevailing international prices, even with reports of demand problems stemming from disease outbreaks in poultry and hogs.

Brazil is forecast to enter 2013/14 with increased corn stocks, up 2.3 million tons to 11.5 million. Brazil is expected to produce another large second-crop corn harvest in 2013, and a significant portion of that crop is likely to remain in stocks when the first-crop harvest for 2013/14 rings in the new crop year in March 2014.

The beginning stocks of 2013/14 are the same as the ending stocks for 2012/13, so significant changes to 2012/13 estimates and forecasts are reflected in the month-to-month change in forecast stocks. Foreign coarse grain ending stocks for 2012/13 are up 0.9 million tons this month to 132.4 million. The EU accounts for most of the increase, up 1.3 million tons to 11.5 million. Most of the increase comes from revised 2011/12 barley production (up) and feed use (down) based on reports from USDA, Foreign Agricultural Service posts. Increased 2012/13 corn production and imports also boosts forecast corn ending stocks 0.2 million tons to 4.5 million.

Brazil's 2012/13 coarse grain ending stocks are forecast down 0.1 million tons this month to 11.8 million due to lower estimated sorghum area and production. However, the most important change to supply and demand was a 2.0-million-ton increase in 2012/13 corn production to a record 76.0 million based on a small increase in reported area and favorable rainfall for the second-crop corn, especially in Mato Grosso. The additional production is expected to be exported, leaving forecast stocks of corn unchanged this month.

Algeria's coarse grain ending stocks for 2012/13 are reduced 0.4 million tons this month, with several years of upward revisions made to estimated use based on an FAS post report. Other significant changes to 2012/13 production and use this month include a 1.8-million-ton production decline for Nigeria, a 0.5-million-

reduction for Venezuela, a 0.4-million trimming for Mozambique, and a 0.3-million reduction for South Africa. Corn production is increased 0.6 million each for Kenya, the EU, and Burkina, and 0.5 million for both India and Tanzania. Corn consumption forecast for 2012/13 is reduced for Nigeria (-1.7 million tons), India (-0.5 million), and Mexico (-0.5 million) but is increased for the EU (+0.9 million), Canada (+0.5million), South Korea (+0.5 million), Tanzania (+0.5 million), Burkina (+0.4 million), and Kenya (+0.4 million).

Record World Coarse Grain Use Projected in 2013/14

Increased competition among exporters and sharply lower prices in 2013/14 are expected to encourage coarse grain use around the globe, with total use projected up 7 percent to 1,221.5 million tons. Foreign coarse grain use is forecast up 5.7 percent to 912.3 million tons. Of the 49.1-million-ton increase in foreign disappearance, about 15 million is caused by the sum of local marketing year exports exceeding imports (unlike 2012/13). Foreign feed and residual use is projected up 4 percent to 576.2 million tons, while food, seed, and industrial (FSI) use is up 3 percent to 328.6 million tons.

China is the largest foreign consumer of coarse grains, projected up 8 percent in 2013/14 to 233.1 million tons. Feed and residual use is forecast up 11.9 million tons to 157.4 million as meat production is expected to expand despite problems with avian influenza in poultry and blue ear and other diseases in hogs. FSI use is expected to grow a bit more slowly than feed use, up 7 percent to 75.7 million. While food use of corn is expected to stagnate, industrial processing for starch and alcohol is expected to grow dynamically despite official attempts to slow that growth.

The EU is projected to use 152.1 million tons of coarse grains in 2013/14, down slightly from the previous year. Feed and residual is forecast down 1.5 million tons to 112.8 million as meat production stagnates. This is partly offset by FSI, up 0.9 million tons to 39.3 million. Corn is expected to continue to be a more attractive input to ethanol production than alternative grains, particularly wheat.

In Sub-Saharan Africa, coarse grain use is forecast virtually unchanged in 2013/14 at 102.2 million tons. Both production and imports by the region are expected to be little changed on net, with many offsetting changes in forecasts for individual countries.

South America's coarse grain use is forecast up 2.4 million tons to 92.0 million in 2013/14. Brazil's feed and residual use is only expected to grow 2 percent. Argentina's feed and residual is projected up 4 percent, supported by expanding poultry production, but slower growth is expected in the rest of the continent.

In the FSU, coarse grain use is projected up 10 percent to 55.4 million tons. Russia's domestic use is projected up 16 percent to 28.9 million tons, with feed and residual increasing 2.4 million tons to 18.6 million. The poultry and hog sectors are expected to continue to expand and modernize. Russia's FSI is projected up 1.6 million tons to 10.3 million, recovering to levels last reached 4 years ago. With increased supplies, rye FSI is projected to rebound sharply. Ukraine's coarse grain use is projected up 1.0 million tons to 15.1 million, with feed increasing 5 percent.

Ukraine's FSI is projected up 12 percent mostly due to increased corn processing. Moldova's feed use is expected to rebound sharply with a recovery in corn production.

South Asia's coarse grain consumption in 2013/14 is projected up 4 percent, with nearly all the growth in India. India's consumption growth is balanced with feed and residual use up 1.0 million tons and FSI up 1.1 million.

Coarse grain use in the Middle East is projected up 4 percent to 41.7 million tons. Barley consumption is projected up 1.0 million tons on sharply increased production in most of the region, but with no growth in Saudi barley consumption expected. Some increase in corn use is projected in several countries.

Mexico's coarse grain use in 2013/14 is projected up 4 percent to 40.2 million tons. Increased corn production and sorghum imports support a modest expansion in food use and 6 percent growth in feed use.

Coarse grain use in Southeast Asia is projected up 5 percent to 37.4 million tons as record corn production in several countries supports increasing poultry production.

North Africa's coarse grain consumption is projected up 7 percent to 25.1 million tons. Barley consumption in the region is projected up 1.1 million tons due to strong production, while corn use is only forecast up 0.5 million tons, with modest expansion in poultry production.

Canada's coarse grain use is expected to stagnate at 21.1 million tons in 2013/14. An increase in FSI for ethanol is offset by reduced feed and residual use due to sluggish meat production. Japan's coarse grain use is projected up 0.5 million tons to 18.7 million as more corn and less wheat is expected to be used in compound feed. A similar shift supports slight growth in South Korea's coarse grain use to 8.5 million tons.

Global Stocks Expected Higher on U.S. Increase

World coarse grain supplies are projected up in 2013/14 more than the increase in forecast use, supporting an increase in global ending stocks of 31.8 million tons to 186.1 million. This would be the largest increase in global stocks since 2004/05. Moreover, the increase is expected to be concentrated in the United States, with foreign coarse grain ending stocks projected down 0.8 million tons to 131.6 million. In general, with supplies abundant, exporters' stocks are expected to build, but importers' stocks remain little changed, as the urgency of securing imports is lulled by lower prices.

Developments in China are crucial to the forecast. Demand for feed grains, especially corn, is expected to grow much more rapidly than production, and while imports are forecast up to record levels, some reduction in massive ending stocks is anticipated. There is reportedly a significant amount of poor quality corn owned by the government that will have to move out of stocks during 2013/14. China's coarse grain ending stocks are forecast down 8 percent to 59.0 million tons. This still represents a stocks-to-use ratio of over 25 percent, or more than 3 months' use.

Brazil is expected to be the second largest foreign holder of coarse grain stocks, with 2013/14 ending stocks projected up 0.9 million tons to a near record 12.6 million. While second crop corn in Mato Grosso can be stored during the dry season, it is difficult to store that corn into and through the wet season in the tropical environment. There is a strong incentive to move the corn during the dry season and before the soybean harvest in 2015. Government support and market intervention programs are designed to facilitate that movement. These factors are expected to limit the buildup of stocks despite huge corn crops.

Coarse grain stocks in the EU are projected up slightly to 11.8 million tons. No government action to acquire coarse grain stocks is expected. Stocks in South Africa, at 3.5 million tons, and Iran, at 3.4 million, are expected to remain large but little changed.

Canada's coarse grain stocks are projected up 0.9 million tons to 3.7 million, Ukraine's stocks are expected up 0.8 million to 2.8 million, Russia's stocks will nearly double to 2.3 million, Argentina is projected up 0.6 million to 2.1 million, and Serbia is up 0.4 million to 0.9 million. With low prices and stiff competition in export markets, these countries are expected to have difficulty moving large production into the world market.

The stockholding activities of importing countries are more diverse, with Turkey and Mexico expected to increase coarse grain stocks with increased production, while Egypt cuts ending stocks due to foreign exchange constraints. Many importers do not have an incentive to change their stock holdings.

World Coarse Grain Trade To Increase in 2013/14

Global coarse grain trade in 2013/14 is projected to increase 5.0 million tons from 2012/13 to 130.9 million but remain below the 2011/12 record. Sharply reduced prices will encourage consumption in importing countries, but it will take some time to accelerate growth in meat production and reduce meat prices to consumers.

World corn trade is projected up 4 percent to 101.8 million tons. China is forecast up 4.0 million tons to a record 7.0 million, the maximum import quota available. As international corn prices drop, it will be very attractive to import corn to China where corn prices remained above prices traded in world markets even when U.S. prices hit record levels in 2012/13. However, China appears intent on maintaining strong support for corn producers and is not expected to import enough corn to cause corn prices in China to drop significantly.

Egypt's corn imports are projected to rebound 0.9 million tons to 4.9 million. This is a significant increase from 2012/13 but is below that of the previous 4 years. While foreign exchange constraints are expected to ease under some arrangement, they will still be a limiting factor. Iran is expected to increase corn imports 0.6 million tons to 4.1 million to slow the decline in ending stocks. Japan's corn imports are projected up 0.5 million tons as a shift away from wheat for feed is expected. Colombia's corn imports are forecast up 0.4 million tons to 3.6 million to support increased consumption and maintain stocks. Malaysia and Morocco are each expected to increase corn imports 0.3 million tons, and numerous other

countries are also projected to increase corn imports by smaller amounts to support increased consumption.

However, a few countries are projected to cut corn imports significantly, limiting the increase in world corn trade in 2013/14. EU corn imports are forecast down 3.5 million tons to 7.0 million. Increased domestic production of corn and feed-quality wheat will limit import needs. Moreover, ample supplies of feed-quality wheat are expected to be available from the Black Sea to fill the lower quality import quota. The pricing and timing of wheat and corn exports by Ukraine will influence the mix of EU wheat and corn imports.

U.S. corn imports are expected to drop dramatically (down 2.3 million tons to 0.7 million) from record levels in 2012/13. Once the U.S. corn harvest begins, prices are expected to drop, limiting imports to the normal cross border trade with Canada, routine seed imports, and shipments to Puerto Rico, where foreign ocean freight rates favor imports.

Mexico's corn imports are projected to drop 1.0 million tons to 6.5 million, the lowest in 9 years. Domestic production is up, limiting import demand, and with the U.S. sorghum crop much larger, Mexico is expected to import more sorghum and less corn.

U.S. Corn Exports To Rebound in 2013/14 But Remain Below Average

U.S. corn exports in the October-September 2013/14 trade year are projected to reach 33.0 million tons, up sharply from 19.5 in 2012/13 but lower than in any other year since 1985/86. (U.S. 2013/14 September-August marketing year exports are projected at 1.3 billion bushels, up 550 million.) Several factors are expected to limit U.S. exports despite record large production. The late-planted U.S. crop is likely to be harvested later than usual, limiting early season exports. Competition from Brazil will be especially strong early in the year. Record-large Brazilian soybean exports from April 2013 through August 2013, and ensuing port congestion, will leave most of the large second-crop corn from 2012/13 to be exported out of Brazil between September 2013 and February 2014, right in the teeth of the U.S. harvest. Also Ukraine, with an important freight advantage to Mediterranean and Mideast markets, is expected to harvest a record corn crop. These exporters and Argentina are expected to act as price takers, cutting export prices to a discount to U.S. prices to move stocks they cannot afford to hold.

Brazil's corn exports during trade year 2013/14 are projected down 32 percent from 2012/13 to 18.0 million tons. While exportable supplies will remain large, the incentive to produce will be reduced by lower prices. A shift to soybeans from first-crop corn is expected, and high transportation costs and limited budgets to subsidize exports may limit exports from the second crop in 2013/14.

Ukraine's corn exports are projected to reach a record 16.5 million tons, up 3.0 million, based on a crop significantly higher than any previous record. Corn ending stocks are projected to more than double, but most of the corn will likely move into exports.

Argentina's corn exports are forecast to reach 16.0 million tons in 2013/14, down 6.0 million from the previous year. Argentina is expected to have a record-large corn crop but with sharply lower prices will be slower to export it.

India's corn exports are forecast down 1.0 million tons to 3.0 million in 2013/14. Low international prices are expected to encourage use of a larger share of the crop to support expansion in domestic broiler and egg production.

EU corn exports are projected to rebound 1.5 million tons to 2.5 million in 2013/14. Much larger crops in Southern and Eastern EU countries will be in a position to be exported to markets outside the EU. Russia, with record corn production, is expected to boost exports 0.2 million tons to 2.5 million, mostly to corn-deficit neighboring countries. Paraguay, with a small reduction in expected production, is projected to export 2.3 million tons of corn in 2013/14, down 0.1 million.

Serbia's corn exports are projected to rebound 1.5 million tons to 2.0 million as production rebounds from last year's devastating drought. Most of the exports will go to the EU. South Africa, with increased production, is expected to increase exports 0.1 million tons to 1.8 million. Corn exports by Zambia and Malawi are projected to decline by 0.2 million tons each. Most other corn exporters are much smaller and are not expected to have dramatic changes in export prospects.

Global Barley Trade Projected Down Slightly in 2013/14

World barley trade for October-September 2013/14 is projected at 18.3 million tons, down 2 percent from the previous year. Imports are forecast down slightly for China, the United States, and several other countries. Saudi imports are projected unchanged from a year earlier at 7.5 million tons. However, significant shifts are projected between exporters. With increased production in Russia and Australia, exports a forecast up 1.5 and 0.3 million tons, respectively. Meanwhile, reduced production in Argentina is expected to drop exports 1.7 million tons. Tight supplies and competition is likely to reduce barley exports 0.2 million tons each for the EU and Ukraine.

World Sorghum Trade in 2013/14 to Be the Highest in 6 Years

Global sorghum trade in 2013/14 is projected to reach 8.2 million tons, up 1.0 million from the previous year and the largest in 6 years. Increased U.S. production and large supplies in Argentina and Australia are expected to make sorghum an attractive alternative to corn, especially for Mexico. Mexico's sorghum imports are projected at 3.5 million tons, up 1.3 million from 2012/13, and the largest in 12 years. Most other importers are expected to maintain imports unchanged on the year, but with ample domestic grains, EU imports are expected to decline 0.2 million tons.

U.S. 2013/14 sorghum exports are projected up 81 percent year to year to 3.8 million tons (150 million bushels for the 2013/14 local marketing year), slightly less than exported in 2009/10 and 2010/11. With a large U.S. crop, sorghum is expected to be sold at an increasing discount to corn, attracting Mexican buyers. Despite increased production, exports by Argentina and Australia are expected to be constrained by U.S. competition. Argentina's sorghum exports are projected down

0.4 million tons to 3.0 million but would still be the second largest since 1985/86. Australia's exports are forecast down 0.1 million tons to 0.9 million.

Global oats trade and rye trade in 2013/14 are projected little changed from the previous year, with a small increase in U.S. oats imports and Canada oats exports.

U.S. 2012/13 Corn Exports Reduced Further, Competitors Raised

World corn trade for 2012/13 is raised 1.1 million tons this month to 97.6 million. Based on revised demand and the pace of purchases, corn imports are raised 0.5 million tons each for the EU, South Korea, and Venezuela, with smaller increases for Saudi Arabia and Thailand. Partly offsetting is a reduction of 0.5 million tons for Mexico and smaller declines for Kenya, Lebanon, and other countries.

Argentina's projected corn exports for the October-September 2012/13 trade year are raised 2.0 million tons to a record 22.0 million tons. The local marketing year 2012/13 corn exports remain forecast at 19.0 million tons, but there is a strong incentive for Argentina to ship corn before October 2013 when the U.S. harvest is expected to depress prices. Brazil's 2012/13 trade year corn exports are forecast up 1.5 million tons this month to a record 26.5 million. With a huge crop, Brazil's local marketing year exports are raised more, up 2.0 million tons, but due to port congestion, a portion of that increase is expected to occur after October 1, 2013. Based on increased production and the pace of shipments, India's trade year corn exports are boosted 1.0 million tons this month to 4.0 million. World prices are high enough to bid corn away from India's broiler and egg producers.

Corn export prospects for 2012/13 are reduced this month for Canada (slow pace), down 0.5 million tons to 1.0 million; for South Africa (reduced production), trimmed 0.3 million to 1.7 million; and for Thailand (very slow pace), cut 0.1 million to 0.1 million.

The largest adjustment to 2012/13 export forecasts is for the United States, down 2.5 million tons to 19.5 million (down 50 million bushels to 750 million for the local marketing year). The pace of shipments in recent weeks has been slower than expected and sales have not picked up. U.S. export prices remain far above competitors' price quotes for shipment in 2012/13. Moreover, with the U.S. corn crop planted late, the early harvest is likely to be limited, implying that corn exports in September 2013 are unlikely to be strong, dragging down the October-September trade year more than the September-August local marketing year. According to Census data, U.S. corn exports for October 2012 to March 2013 were only 9.2 million tons, and April export inspections continued sluggish at 1.3 million. As of May 2, 2013, outstanding sales of corn were only 4.2 million tons. Summing the Census trade, April inspections, and outstanding sales at the beginning of May reveals commitments of less than 15 million tons. At this time last year, these commitments equaled 93 percent of final exports. So to reach the 19.5-million-ton forecast, U.S. export sales and shipments need to increase over those of recent weeks.

Contacts and Links

Contact Information

Thomas Capehart (domestic), (202)-694-5313, tcaphart@ers.usda.gov
Edward Allen (international), (202)-694-5288, ewallen@ers.usda.gov
Jennifer Bond, (economist), (202)-694-5326, jbond@ers.usda.gov
Verna Daniels (Web publishing), (202)-694-5301, vblake@ers.usda.gov

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(<http://ers.usda.gov/data-products/feed-grains-database.aspx>) 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

Feed Outlook

(<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1273> WASDE)

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

Grain Circular

(<http://www.fas.usda.gov/grain/Current/default.asp>)

World Agricultural Production

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

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Tables

Table 1--Feed grains: U.S. quarterly supply and disappearance (million bushels), 5/14/2013

Commodity, market year, and quarter 1/			Beginning stocks	Production	Imports	Total supply	Food, seed, and industrial use	Feed and residual use	Exports	Total disappearance	Ending stocks	Farm price 2/ (dollars per bushel)
Corn	2010/11	Sep-Nov	1,708	12,447	5	14,160	1,582	2,067	454	4,103	10,057	4.30
		Dec-Feb	10,057		8	10,065	1,577	1,562	403	3,542	6,523	5.07
		Mar-May	6,523		10	6,534	1,638	715	511	2,864	3,670	6.01
		Jun-Aug	3,670		4	3,673	1,628	451	467	2,546	1,128	6.51
		Mkt yr	1,708	12,447	28	14,182	6,426	4,795	1,834	13,055	1,128	5.18
	2011/12	Sep-Nov	1,128	12,360	4	13,491	1,613	1,825	406	3,844	9,647	5.87
		Dec-Feb	9,647		4	9,651	1,641	1,540	446	3,627	6,023	6.06
		Mar-May	6,023		11	6,034	1,630	858	398	2,886	3,148	6.34
		Jun-Aug	3,148		10	3,159	1,555	322	293	2,170	989	7.02
		Mkt yr	1,128	12,360	29	13,516	6,439	4,545	1,543	12,527	989	6.22
	2012/13	Sep-Nov	989	10,780	29	11,798	1,481	2,064	221	3,766	8,033	6.89
		Dec-Feb	8,033		51	8,084	1,440	1,082	163	2,685	5,399	6.95
		Mkt yr	989	10,780	125	11,894	5,985	4,400	750	11,135	759	6.70-7.10
	2013/14	Mkt yr	759	14,140	25	14,924	6,295	5,325	1,300	12,920	2,004	4.30-5.10
Sorghum	2010/11	Sep-Nov	41.24	345.63	0.01	386.87	23.60	89.69	35.91	149.21	237.67	4.43
		Dec-Feb	237.67		0.02	237.69	24.85	16.21	25.58	66.64	171.05	5.21
		Mar-May	171.05		0.00	171.05	26.79	12.90	51.32	91.02	80.03	6.32
		Jun-Aug	80.03			80.03	9.76	3.94	38.88	52.58	27.45	5.90
		Mkt yr	41.24	345.63	0.03	386.90	85.00	122.74	151.70	359.45	27.45	5.02
	2011/12	Sep-Nov	27.45	214.44	0.00	241.89	24.50	44.31	22.13	90.94	150.95	5.98
		Dec-Feb	150.95		0.05	151.00	25.51	5.70	11.72	42.93	108.07	5.97
		Mar-May	108.07		0.05	108.12	26.51	15.35	7.73	49.59	58.53	6.00
		Jun-Aug	58.53		0.01	58.53	8.47	5.29	21.81	35.58	22.95	6.02
		Mkt yr	27.45	214.44	0.11	242.00	85.00	70.65	63.40	219.05	22.95	5.99
	2012/13	Sep-Nov	22.95	246.93	1.09	270.97	25.06	78.73	27.34	131.13	139.85	6.86
		Dec-Feb	139.85		0.06	139.91	20.06	9.61	18.85	48.51	91.39	6.78
		Mkt yr	22.95	246.93	12.00	281.88	80.00	100.00	80.00	260.00	21.88	6.65-7.05
	2013/14	Mkt yr	21.88	425.00		446.88	120.00	120.00	150.00	390.00	56.88	3.90-4.70

Table 1--Feed grains: U.S. quarterly supply and disappearance, cont. (million bushels), 5/14/2013

Commodity, market year, and quarter 1/			Beginning stocks	Production	Imports	Total supply	Food, seed, and industrial use	Feed and residual use	Exports	Total disappear- ance	Ending stocks	Farm price 2/ (dollars per bushel)
Barley	2010/11	Jun-Aug	115	180	3	299	42	33	1	75	224	3.71
		Sep-Nov	224		3	227	40	2	5	46	180	3.72
		Dec-Feb	180		2	182	35	7	1	44	138	3.89
		Mar-May	138		2	140	41	8	1	50	89	4.30
		Mkt yr	115	180	9	305	159	50	8	216	89	3.86
	2011/12	Jun-Aug	89	156	1	246	41	26	3	71	175	5.14
		Sep-Nov	175		4	179	39	-2	3	40	139	5.46
		Dec-Feb	139		7	145	38	12	1	52	94	5.44
		Mar-May	94		5	99	37	1	1	39	60	5.52
		Mkt yr	89	156	16	261	155	38	9	201	60	5.35
	2012/13	Jun-Aug	60	220	5	285	40	45	3	89	197	6.26
		Sep-Nov	197		6	203	38	3	3	45	158	6.44
		Dec-Feb	158		6	164	37	10	1	48	116	6.44
		Mkt yr	60	220	23	303	155	65	9	229	74	6.40
	2013/14	Mkt yr	74	220	20	314	155	75	10	240	74	5.30-6.30
Oats	2010/11	Jun-Aug	80	81	24	186	18	50	1	69	117	2.10
		Sep-Nov	117		24	140	18	21	1	39	101	2.59
		Dec-Feb	101		19	120	17	16	1	34	86	3.13
		Mar-May	86		18	105	22	15	1	37	68	3.44
		Mkt yr	80	81	85	247	74	102	3	179	68	2.52
	2011/12	Jun-Aug	68	54	18	139	17	43	1	61	78	3.27
		Sep-Nov	78		36	114	18	17	1	35	79	3.62
		Dec-Feb	79		24	103	17	11	0	29	75	3.53
		Mar-May	75		16	91	25	11	0	36	55	3.95
		Mkt yr	68	54	94	215	76	82	2	160	55	3.49
	2012/13	Jun-Aug	55	64	29	148	17	46	0	63	85	3.77
		Sep-Nov	85		27	112	18	21	0	39	73	3.85
		Dec-Feb	73		17	90	17	21	0	38	53	4.02
		Mkt yr	55	64	90	209	76	100	1	177	32	3.85
	2013/14	Mkt yr	32	73	95	200	77	80	3	160	40	2.70-3.30

Latest market year is projected; previous market year is estimated. Totals may not add due to rounding.

1/ Corn and sorghum, September 1-August 31 marketing year; Barley and oats, June 1-May 31 marketing year.

2/ Average price received by farmers based on monthly price weighted by monthly marketings. For the latest market year, quarterly prices are calculated by using the current monthly prices weighted by the monthly marketings for those months for the previous 5 years divided by the sum of marketings for those months.

Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Data run: 5/13/2013

Table 2--Feed and residual use of wheat and coarse grains, 5/14/2013

Market year and quarter 1/		Corn (million metric tons)	Sorghum (million metric tons)	Barley (million metric tons)	Oats (million metric tons)	Feed grains (million metric tons)	Wheat (million metric tons)	Energy feeds (million metric tons)	Grain consuming animal units (millions)	Energy feeds per grain consuming animal unit (tons)
2011/12	Q1 Sep-Nov	46.4	1.1	-0.0	0.3	47.8	-0.4	47.3		
	Q2 Dec-Feb	39.1	0.1	0.3	0.2	39.8	1.2	41.0		
	Q3 Mar-May	21.8	0.4	0.0	0.2	22.4	-1.9	20.5		
	Q4 Jun-Aug	8.2	0.1	1.0	0.7	10.0	11.7	21.7		
	MY Sep-Aug	115.5	1.8	1.2	1.5	120.0	10.6	130.6	92.6	1.4
2012/13	Q1 Sep-Nov	52.4	2.0	0.1	0.4	54.9	-0.8	54.0		
	Q2 Dec-Feb	27.5	0.2	0.2	0.3	28.3	0.2	28.5		
	MY Sep-Aug	111.8	2.5	1.9	1.6	117.8	7.9	125.8	91.9	1.4
2013/14	MY Sep-Aug	135.3	3.0	1.3	1.8	141.4	8.2	149.6	91.7	1.6

1/ Corn and sorghum, September 1-August 31 marketing year; Barley and oats, June 1-May 31 marketing year.

Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Table 3--Cash feed grain prices, 5/14/2013

Mkt year and month 1/	Corn, No. 2 yellow, Central IL (dollars per bushel)			Corn, No. 2 yellow, Gulf ports, LA (dollars per bushel)			yellow, Plainview to Muleshoe, TX		Sorghum, No. 2 yellow, Gulf ports, LA (dollars per cwt)		
	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2010/11	2011/12	2012/13
Sep	4.51	6.77	7.70	5.23	7.50	8.15	7.74	11.48	9.79	12.88	12.97
Oct	5.19	6.23	7.48	5.99	6.98	8.16	8.54	10.73	10.40	12.08	13.20
Nov	5.33	6.26	7.39	6.05	6.97	8.18	8.78	10.96	10.75	12.44	13.10
Dec	5.65	5.96	7.23	6.36	6.57	7.85	9.62	10.50	11.10	11.82	13.14
Jan	6.10	6.25	7.17	6.73	6.94	7.70	10.46		11.91	12.20	13.13
Feb	6.69	6.41	7.15	7.44	7.10	7.70	11.42		12.63	12.09	13.12
Mar	6.59	6.46	7.33	7.38	7.13	7.85	11.45		12.64	12.04	13.32
Apr	7.33	6.34	6.57	8.11	6.96	7.11	12.78		13.68	11.94	12.18
May	7.08	6.27		7.82	6.84		12.22				
Jun	7.17	6.30		7.89	6.79		12.21				
Jul	6.96	7.85		7.64	8.46		10.69		12.65		
Aug	7.30	8.15		7.88	8.44		11.47		13.71	13.47	
Mkt year	6.33	6.60		7.04	7.22		10.62	10.92	11.92	12.33	
	Barley, No. 2 feed, Minneapolis, MN (dollars per bushel)			Barley, No. 3 malting, Minneapolis, MN (dollars per bushel)			Oats, No. 2 white heavy, Minneapolis, MN (dollars per bushel)				
	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13		
Jun	2.23	5.06	5.15	3.20	7.40	7.03	2.39	3.68	3.37		
Jul	2.06	5.18	5.52		7.72	6.89	2.58	3.68	3.95		
Aug	2.54	5.25	5.78		7.83	6.95	2.69	3.69	3.99		
Sep	2.99	5.14	5.58		7.76	6.99	3.14	3.72	3.89		
Oct	3.32	5.16	5.51		7.64	7.11	3.56	3.51	3.98		
Nov	3.57	5.29	5.49	4.70	7.60	7.23	3.54	3.36	3.85		
Dec	3.89	5.17	5.29	5.16	7.32	7.22	3.88	3.30	3.94		
Jan	4.15	5.24	5.08	5.58	7.20	7.09	3.93	3.16	3.79		
Feb	4.62	5.26	5.16	5.91	7.07	7.04	4.08	3.46	4.07		
Mar	4.74	5.37	5.22	5.92	7.05	6.87	3.55	3.48	4.26		
Apr	5.05	5.18	5.00	6.20	7.03	6.37	3.83	3.55	4.13		
May	4.83	5.21		6.43	7.00		3.55	3.48			
Mkt year	3.67	5.21		5.39	7.38		3.39	3.50			

1/ Corn and sorghum, September 1-August 31 marketing year; Barley and oats, June 1-May 31 marketing year. Simple average of monthly prices for the marketing year.

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

Data run: 5/13/2013

Table 4--Selected feed and feed byproduct prices (dollars per ton), 5/14/2013

Mkt year and month 1/	Soybean meal, high protein, Central Illinois, IL			Cottonseed meal, 41% solvent, Memphis, TN			Corn gluten feed, 21% protein, Midwest			Corn gluten meal, 60% protein, Midwest		
	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13
Oct	321.92	301.45	488.46	225.31	255.63	343.00	129.75	173.75	226.50	501.88	524.38	753.50
Nov	341.78	292.22	466.16	235.00	240.50	376.88	141.80	168.20	209.75	518.00	487.00	716.25
Dec	351.93	281.66	460.09	240.63	220.63	345.00	136.25	155.00	203.34	520.00	441.25	673.34
Jan	368.54	310.65	431.39	245.63	213.00	327.50	138.88	138.00	204.10	524.06	433.50	599.50
Feb	358.59	330.37	440.67	258.75	190.00	279.38	149.25	133.75	209.88	533.75	448.75	584.38
Mar	345.43	365.96	437.33	256.50	225.00	301.88	150.10	129.38	204.13	543.30	487.50	581.88
Apr	335.87	394.30	431.39	240.00	240.63	314.50	151.13	128.75	187.33	556.25	498.75	540.50
May	342.30	415.17		275.50	270.00		149.40	137.80		556.00	533.00	
Jun	347.45	422.60		307.50	294.38		149.75	138.00		567.50	579.00	
Jul	346.52	515.83		313.13	350.50		148.89	192.20		556.25	629.00	
Aug	349.60	564.69		342.50	407.50		160.60	252.50		559.00	718.75	
Sep	336.32	529.37		345.63	393.75		183.25	243.38		550.63	721.88	
Mkt yr	345.52	393.69		273.84	275.13		149.09	165.89		540.55	541.90	
	Meat and bone meal, Central US			Distillers dried grains, Central Illinois, IL			Wheat middlings, Kansas City, MO			Alfalfa hay, weighted-average farm price 2/		
	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13	2010/11	2011/12	2012/13
Oct	293.26	299.02	463.59	155.38	207.50	278.00	134.69	185.69	208.57	118.00	204.00	212.00
Nov	314.64	284.24	380.38	166.70	216.10	259.00	141.88	198.55	193.60	117.00	193.00	215.00
Dec	304.05	280.76	320.42	172.25	192.25	261.67	164.31	196.24	217.37	121.00	195.00	217.00
Jan	304.39	285.08	338.16	180.63	194.20	264.90	157.33	138.58	196.38	121.00	193.00	217.00
Feb	317.37	289.60	410.39	199.88	203.00	271.13	145.13	136.35	197.47	129.00	194.00	218.00
Mar	354.50	337.49	474.92	203.70	213.88	270.88	151.35	126.71	196.93	142.00	200.00	219.00
Apr	405.38	421.08	424.37	214.50	213.88	242.40	151.38	108.05	183.64	161.00	210.00	215.00
May	429.50	439.82		204.80	223.40		171.31	136.28		191.00	217.00	
Jun	395.05	393.29		214.25	220.63		158.80	144.36		185.00	201.00	
Jul	367.30	414.07		208.50	272.90		174.80	212.28		198.00	198.00	
Aug	337.26	444.80		207.00	301.63		199.93	256.13		196.00	203.00	
Sep	333.17	490.16		207.13	293.38		219.69	216.21		198.00	205.00	
Mkt yr	346.32	364.95		194.56	229.39		164.22	171.28		123.00	196.00	211.00

1/ October 1-September 30 except for hay. Simple average of monthly prices for the marketing year except for hay.

Source: USDA, Agricultural Marketing Service, <http://marketnews.usda.gov/portal/ig>, and USDA, National Agricultural Statistics Service, http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp.

Table 5--Corn: Food, seed, and industrial use (million bushels), 5/14/2013

Mkt year and qtr 1/	High-fructose corn syrup (HFCS)		Glucose and dextrose	Starch	Alcohol for fuel	Alcohol for beverages and manufacturing	Cereals and other products	Seed	Total food, seed, and industrial use
2011/12	Q1 Sep-Nov	119.64	77.97	64.65	1,266.69	33.30	50.73	0.00	1,612.98
	Q2 Dec-Feb	115.00	73.34	62.03	1,304.81	34.93	50.73	0.00	1,640.83
	Q3 Mar-May	136.83	72.98	62.14	1,247.78	36.59	50.53	23.57	1,630.40
	Q4 Jun-Aug	141.89	72.33	65.15	1,191.75	31.68	51.23	0.96	1,555.01
	MY Sep-Aug	513.36	296.61	253.97	5,011.03	136.50	203.23	24.53	6,439.22
2012/13	Q1 Sep-Nov	122.76	70.37	63.79	1,141.52	32.94	49.90	0.00	1,481.28
	Q2 Dec-Feb	113.44	65.35	58.68	1,118.17	34.55	49.79	0.00	1,439.98
	MY Sep-Aug	495.00	280.00	250.00	4,600.00	135.00	200.39	24.62	5,985.00
2013/14	MY Sep-Aug	500.00	300.00	280.00	4,850.00	135.00	205.00	24.00	6,294.00

1/ September-August. Latest data may be preliminary or projected.

Source: Calculated by USDA, Economic Research Service.

Date run: 5/13/2013

Table 6--Wholesale corn milling product and byproduct prices, 5/14/2013

Mkt year and month 1/	Corn meal, yellow, Chicago, IL (dollars per cwt)		Corn meal, yellow, New York, NY (dollars per cwt)		Corn starch, Midwest 3/ (dollars per cwt)		Dextrose, Midwest (cents per pound)		High-fructose corn syrup (42%), Midwest (cents per pound)	
	2011/12	2012/13	2011/12	2012/13	2011/12	2012/13	2011/12	2012/13	2011/12	2012/13
Sep	27.99	29.21	30.30	31.03	23.26	24.22	30.85	34.85	21.38	23.38
Oct	26.78	28.56	29.09	30.39	22.63	23.05	30.85	34.85	21.38	23.38
Nov	26.90	28.34	29.20	30.17	20.05	22.24	30.85	35.35	21.38	23.38
Dec	25.74	28.01	28.05	29.84	20.89	22.27	30.85	35.10	21.38	23.38
Jan	24.86	27.93	26.56	29.76	19.90	22.78	34.85	35.35	23.38	25.88
Feb	26.40	27.63	30.37	29.46	21.40	22.27	33.85	35.35	23.38	25.88
Mar	26.17	27.79	27.92	29.61	21.79	22.81	35.85	35.35	23.38	25.88
Apr	25.52	27.19	27.55	29.07	22.09	23.08	34.85	35.35	23.38	25.88
May	24.49		26.77		21.34		34.85		23.38	
Jun	24.30		26.00		21.25		34.85		23.38	
Jul	28.35		30.05		20.65		35.35		23.38	
Aug	29.86		31.56		24.10		34.85		23.38	
Mkt year 2/	26.44		28.62		21.61		33.56		22.71	

1/ September-August. Latest month is preliminary.

2/ Simple average of monthly prices for the marketing year.

3/ Bulk-industrial, unmodified.

Source: Milling and Baking News, except for corn starch which is from private industry.

Date run: 5/13/2013

Table 7--U.S. feed grain imports by selected sources (1,000 metric tons) 1/, 5/14/2013

		----- 2010/11 -----		----- 2011/12 -----		2012/13
Import and country/region		Mkt year	Jun-Mar	Mkt year	Jun-Mar	Jun-Mar
Oats	Canada	1,393	1,178	1,556	1,373	1,369
	Finland	74	74	35	35	
	Jamaica	0	0	0	0	
	All other countries	0	0	30	29	1
	Total 2/	1,468	1,252	1,621	1,437	1,370
Malting barley	Canada	175	162	264	216	294
	All other countries	0	0	0	0	0
	Total 2/	175	162	264	216	294
Other barley 3/	Canada	31	19	89	77	132
	All other countries	1	1	1	1	3
	Total 2/	32	20	90	78	135

1/ Grain only. Market year (June-May) and market year to date.

2/ Totals may not add due to rounding.

3/ Grain for purposes other than malting, such as feed and seed use.

Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Statistics.

Date run: 5/13/2013

Table 8--U.S. feed grain exports by selected destinations (1,000 metric tons) 1/, 5/14/2013

Export and country/region		----- 2010/11 -----		----- 2011/12 -----		2012/13
		Mkt year	Sep-Mar	Mkt year	Sep-Mar	Sep-Mar
Corn	Japan	14,014	8,008	11,503	7,219	4,058
	Mexico	7,484	3,640	10,133	6,220	2,432
	South Korea	6,123	3,600	3,601	2,780	385
	Egypt	3,405	2,166	495	414	0.221
	China (Taiwan)	2,737	1,497	1,554	1,124	351
	European Union-27	1,008	393	9	7	12
	China (Mainland)	980	314	5,146	2,746	2,302
	Syria	960	740	0.114		
	Canada	958	492	870	527	244
	Venezuela	856	263	1,336	692	451
	Israel	804	523	57	28	0.420
	Dominican Republic	756	467	363	340	8
	Costa Rica	712	412	575	388	61
	Guatemala	687	369	591	410	147
	Saudi Arabia	576	392	362	298	206
	Indonesia	548	490	42	42	
	Colombia	506	374	274	197	102
	El Salvador	491	240	381	290	79
	Cuba	454	216	478	347	222
	Honduras	443	232	359	223	95
	Jamaica	283	158	253	145	154
	Panama	263	158	209	186	41
	Lebanon	249	128	0.003		0.010
	Ecuador	214	183	30	30	0.070
	Morocco	182	145	59	59	0.069
	All other countries	899	544	505	325	145
	Total 2/	46,590	26,145	39,184	25,037	11,495
Sorghum	Mexico	2,383	857	1,168	638	1,008
	European Union-27	628	562	4	3	81
	Japan	340	241	96	85	119
	Sub-Saharan Africa	252	224	335	234	128
	All other countries	250	201	8	4	8
	Total 2/	3,853	2,085	1,610	965	1,344
		----- 2010/11 -----		----- 2011/12 -----		2012/13
		Mkt year	Jun-Mar	Mkt year	Jun-Mar	Jun-Mar
Barley	Tunisia	61	61			
	Canada	38	27	26	26	6
	Mexico	34	31	56	44	27
	Morocco	12	12	25	25	
	All other countries	20	19	86	84	149
	Total 2/	165	150	192	178	182

1/ Grain only. Market year (September-August for corn and sorghum, June-May for barley) and market year to date.

2/ Totals may not add due to rounding.

Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Statistics.

Date run: 5/13/2013



Feed Outlook: Special Article

Animal Unit Calculations— First Projections for the 2013/14 Crop Year

Tom Capehart, tcapehart@ers.usda.gov

Approved by the
World Agricultural
Outlook Board

The first animal unit projections for the new crop are reported each year in the May issue of the Feed Outlook report. This article explains the estimation process for each of the four animal units calculated by ERS—grain consuming animal units (GCAU), high protein animal units (HPAU), roughage consuming animal units (RCAU), and grain and roughage consuming animal units (G&RCAU)—and presents the initial 2013/14 estimates.

Feed use of individual grains is a component of the “feed and residual use” category in USDA supply-and-use tables. Feed and residual use represents the remaining disappearance after accounting for other uses that are directly measured, including food, seed, industrial (FSI) use, exports, and stocks. Supply-and-use estimates for corn and other feed grains are compiled using data from many sources. USDA’s National Agricultural Statistics Service (NASS) regularly conducts surveys of farmers and grain handlers to estimate annual production volumes and the level of stocks (i.e., inventories) held throughout the year; U.S. Census Bureau provides official estimates of imports and exports; and FSI use (including use by ethanol producers) can be estimated using data from several Federal agencies, including the U.S. Department of Energy. However, there is no survey or other direct measurement available for the volume of grains fed to livestock. As a result, feed use becomes part of the “residual” category of use after total supply and all other directly measurable usage categories have been estimated and accounted for in supply-and-use tables.

As a result, along with the implied volume used for feed, the feed and residual category also includes measurement errors or inconsistencies in the estimates of the other supply-and-use categories, such as production, stocks, food, seed and industrial use, and trade. Several factors may contribute to measurement error, including shrinkage due to changes in moisture content; waste and spillage during shipping and handling; volume in transit that is not reported as stocks in hand; and human error associated with data collection and reporting that can affect estimates.

Animal Unit Estimates as an Indicator of Feed Use

To provide an indicator of implied feed use, ERS calculates standardized estimates of the size of the U.S. livestock herd and poultry flock. The estimates are an effort to account for differences in the volume of feed consumed across species (i.e., hogs, cattle, broilers, etc.) to arrive at a single aggregate metric for four animal unit categories--the number of GCAUs, HPAUs, RCAUs, and G&RCAUs. Each of these animal unit measures incorporates weights that reflect estimated feed use by each species relative to the consumption of a dairy cow. The results are standardized indices of livestock populations that can be used as general indicators of feed use. The indexing procedure uses weights developed in 1969-71 (the time of the last survey). To calculate the various animal unit measures, animal numbers routinely reported by NASS are used along with estimates of horses and mules constructed by ERS (since NASS does not report these numbers). NASS reports of January 1 inventories for each livestock type are multiplied by the respective weighting factor to calculate the indices. For time periods when NASS data are not yet available, proxies are used. For instance, for some types of poultry, reports of egg production serve as a proxy to estimate the current poultry inventory.

Inventory sources vary by livestock category. NASS January 1 inventory data are used for dairy cattle, other dairy cattle, cattle on feed, other beef cattle, and sheep and goats. Poultry inventories are based on numbers of poultry raised. To be consistent with the crop production and marketing cycle, all poultry and egg production numbers are converted to a September-August year.

Calculating Animal Unit Indices

In general, the various animal unit calculations are simply the January 1 inventory for a given crop year multiplied by the appropriate factor for the livestock type. In the case of calculations for broilers and turkeys, the inventory is based on monthly data and so adjusted by using 25 percent of the previous year and 75 percent of the current year's calculated inventory, to reflect the fact that the September-November feed use quarter falls in one calendar year while most of the last three feed use quarters (December-August) fall in the following calendar year. In the case of hogs, GCAUs are based on the spring and fall pig crops, using 20 percent of the previous year's spring pig crop, 100 percent of the fall pig crop, and 80 percent of the current year's pig crop to reflect the number of pigs that are consuming feed in the marketing year.

By way of example, the GCAU calculation for dairy cattle for 2012/13 is equal to the 9.150 million dairy cows projected on hand on January 1, 2013, multiplied by the appropriate factor 1.0475, to give 9.515 million GCAUs. A similar procedure is used for other livestock types, and the GCAUs are summed to provide the total GCAU for the period. Table 1 shows the various factors applied to animal inventories to calculate animal units.

Table 1--Factors used for animal unit calculations, 5/12/2013

Animal Types	Factor			
	GCAU	HPAU	RCAU	G&RCAU
Cattle				
Dairy				
Cows	1.0475	1.0475	1.0354	1.0397
Heifers	0.1761	0.2296	0.8150	0.5662
Beef				
Cattle on feed	1.5323	0.8889	0.1585	0.6860
Other	0.0547	0.0942	0.7358	0.4729
Sheep	0.0194	0.0954	0.1715	0.1078
Goats			0.2301	0.0611
Horses and mules	0.2043		0.3953	0.3197
Poultry				
Layers	0.0217	0.0345	0.0008	0.0090
Broilers	0.0020	0.0056		0.0007
Pullets	0.0054	0.0181		0.0021
Turkey	0.0155	0.0551	0.0011	0.0074
Hogs	0.2285	0.2903	0.0294	0.1064

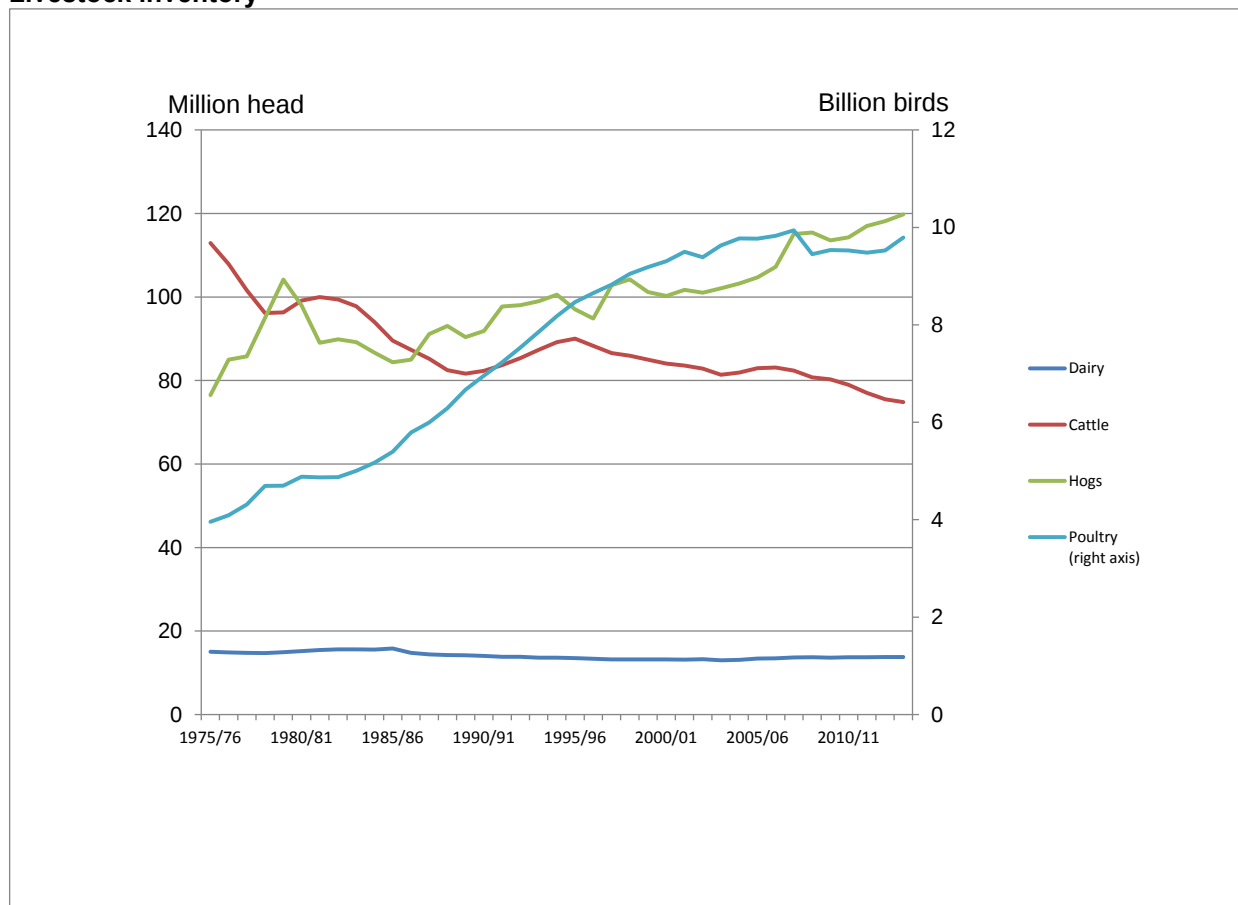
Note: The factors shown in each of the columns are those applied to inventory numbers to derive the corresponding animal unit statistic. For HPAUs, historically, dating back to the 1970s, different (although equivalent) factors were used that were applied to GCAUs instead of inventory numbers. These factors are dairy cows, 1.0000; dairy heifers, 1.3038; cattle on feed, 0.5801; other beef, 1.7216; sheep, 4.9195; layers, 1.5896; broilers, 2.7932; pullets, 3.3596; turkeys, 3.5520; and hogs, 1.2703.

Source: USDA, Economic Research Service, and supporting materials.

Livestock Inventory Trends

Livestock and poultry inventory trends are useful in tracking long-term changes in grain use for feeding. Figure 1 shows long-term inventory trends for cattle, dairy, poultry, and hogs. The changing structure of the livestock sector is apparent in the gradual decline in cattle juxtaposed to the long-term ascendancy of hogs and poultry. These trends are reflected in each livestock category's share of the various animal unit indices.

Figure 1
Livestock inventory



Note: Other includes sheep, goats, and horses.

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

Projected GCAUs for 2013/14

For 2013/14, the total number of GCAUs is projected at 91.69 million units, down from 91.94 million units in 2012/13 for a decline of 0.3 percent. Of the GCAU components, poultry is expected to show the strongest advance, gaining 0.70 million units, or 2.3 percent, followed by hogs with a gain of 0.38 million, or 1.4 percent. Dairy declines by 0.03 units, or 0.3 percent, cattle fall by 1.30 units, or 5.5 percent, and other livestock are unchanged. Lower forecast feed prices will enable livestock producers to increase numbers, especially for hogs and poultry, which respond more quickly to market signals due to shorter biological reproduction cycles.

U.S. feed and residual use for the four feed grains plus feed wheat for 2013/14 on a September-August year is projected at 149.6 million metric tons, up almost 24 million tons from the previous year due to lower expected feed prices reflecting an expected increase in production with higher yields than last year, particularly for corn (table 2). Feed and residual use per grain-consuming animal unit (GCAU) is projected at 1.63 tons in 2013/14, compared with 1.37 tons last year. Figure 2 shows the relationship between feed used per GCAU over time. Because of increasing efficiency in the livestock sector, feed per GCAU has decreased steadily over time. However, rises in feed prices can alter short-term trends in feed per GCAU by encouraging livestock producers to slaughter animals at a lighter weight and put more animals (in the case of cattle) on pasture. When feed prices decline, feed use per GCAU climbs as more animals are fed for a longer period and moved to feedlots.

Table 2--Feed and residual use of wheat and coarse grains, 5/14/2013

Market year and quarter		Corn (million metric tons)	Sorghum (million metric tons)	Barley (million metric tons)	Oats (million metric tons)	Feed grains (million metric tons)	Wheat (million metric tons)	Energy feeds (million metric tons)	Grain consuming animal units (millions)	Energy feeds per grain consuming animal unit (tons)
1/										
2011/12	Q1 Sep-Nov	46.4	1.1	-0.0	0.3	47.8	-0.4	47.3		
	Q2 Dec-Feb	39.1	0.1	0.3	0.2	39.8	1.2	41.0		
	Q3 Mar-May	21.8	0.4	0.0	0.2	22.4	-1.9	20.5		
	Q4 Jun-Aug	8.2	0.1	1.0	0.7	10.0	11.7	21.7		
	MY Sep-Aug	115.5	1.8	1.2	1.5	120.0	10.6	130.6	92.6	1.4
2012/13	Q1 Sep-Nov	52.4	2.0	0.1	0.4	54.9	-0.8	54.0		
	Q2 Dec-Feb	27.5	0.2	0.2	0.3	28.3	0.2	28.5		
	MY Sep-Aug	111.8	2.5	1.9	1.6	117.8	7.9	125.8	91.9	1.4
2013/14	MY Sep-Aug	135.3	3.0	1.3	1.8	141.4	8.2	149.6	91.7	1.6

1/ Corn and sorghum, September 1-August 31 marketing year; Barley and oats, June 1-May 31 marketing year.

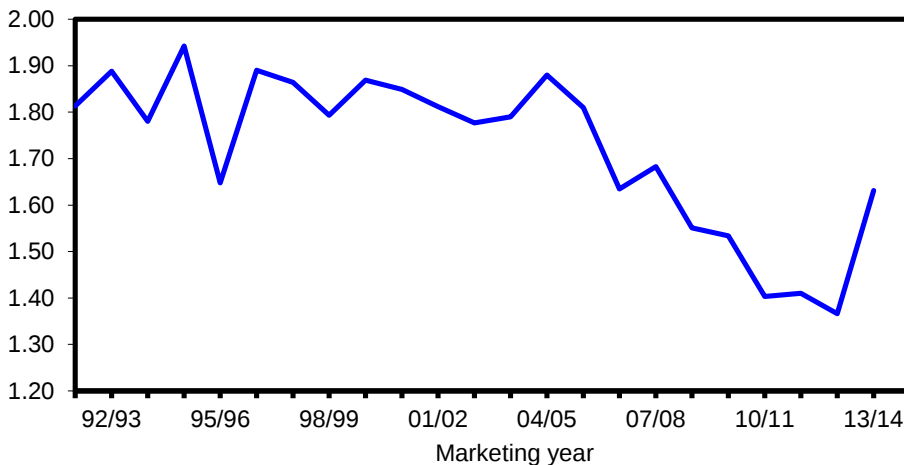
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Data run: 5/13/2013

Figure 2

U.S. feed and residual use of corn, sorghum, barley, oats, and wheat per GCAU

Tons per GCAU



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

Other animal units

HPAU are forecast at 144.27 units for 2013/14, an increase of 1.64 from 2012/13, mostly reflecting increases in hogs and broilers (table 3). RCAU at 67.32 units increase by only 0.04 million as higher numbers for other cattle, hogs, and poultry offset declines for other categories. G&RCAUs decline by 0.08 units to 76.20 as hogs and poultry advances offset declines in cattle on feed. Animal unit data are reported in table 3.

Table 3--Indexes of feed consuming animal units (millions)

Unit 1/		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Grain	Dairy	10.47	10.55	10.31	10.39	10.48	10.46	10.43
	Cattle on feed	22.72	21.23	20.90	21.47	21.64	20.46	19.15
	Other cattle	3.69	3.66	3.64	3.55	3.43	3.40	3.41
	Hogs	26.29	26.38	25.95	26.12	26.74	27.00	27.38
	Poultry	31.30	30.29	30.16	30.21	29.71	30.00	30.70
	Other livestock	0.63	0.63	0.63	0.63	0.62	0.62	0.62
	Total	95.12	92.75	91.60	92.37	92.64	91.94	91.69
High protein	Dairy	10.71	10.79	10.56	10.63	10.73	10.70	10.68
	Cattle on feed	13.18	12.32	12.13	12.46	12.55	11.87	11.11
	Other cattle	6.36	6.30	6.27	6.12	5.91	5.86	5.88
	Hogs	33.40	33.52	32.96	33.18	33.97	34.29	34.78
	Poultry	82.68	79.74	79.24	79.43	78.63	79.40	81.33
	Other livestock	0.57	0.55	0.54	0.52	0.51	0.51	0.50
	Total	146.90	143.21	141.69	142.34	142.31	142.63	144.27
Roughage	Dairy	13.18	13.26	13.10	13.20	13.32	13.26	13.23
	Cattle on feed	2.35	2.20	2.16	2.22	2.24	2.12	1.98
	Other cattle	49.69	49.24	49.02	47.79	46.21	45.75	45.91
	Hogs	3.38	3.39	3.34	3.36	3.44	3.47	3.52
	Poultry	0.57	0.55	0.54	0.54	0.53	0.54	0.56
	Other livestock	2.30	2.25	2.22	2.20	2.15	2.14	2.12
	Total	71.48	70.89	70.39	69.31	67.89	67.28	67.32
Grain and roughage	Dairy	12.12	12.20	12.01	12.10	12.21	12.16	12.14
	Cattle on feed	10.17	9.51	9.36	9.61	9.69	9.16	8.57
	Other cattle	31.94	31.65	31.51	30.72	29.70	29.40	29.50
	Hogs	12.24	12.29	12.08	12.16	12.45	12.57	12.75
	Poultry	12.04	11.64	11.59	11.61	11.41	11.54	11.81
	Other livestock	1.53	1.50	1.49	1.47	1.45	1.45	1.44
	Total	80.04	78.78	78.03	77.67	76.91	76.28	76.20

1/ Index is based on the dry-weight quantity of feed consumed by the average milk cow during marketing years 1969/70-71/72. Market year is September-August. Latest data may be preliminary or projected.

Source: Calculated by USDA, Economic Research Service from animal inventory numbers published by USDA, National Agricultural Statistics Service in Cattle; Sheep and Goats; Hogs and Pigs; Chickens and Eggs; and Turkeys Raised; and from horse and mule inventory numbers published in the Census of Agriculture.

Date run: 5/13/2013