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Situation and
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Feed Outlook

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Higher Projected Acreage Boosts Corn Production

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Total U.S. corn supply for 2017/18 is projected at 16.7 billion bushels, 265 million higher than last month's forecast. Planted corn acreage is projected at 90.9 million acres, up nearly 1.0 million. With no change in projected yield, corn production is raised 190 million bushels to 14.3 billion. Feed and residual is raised 50 million bushels this month to 5,475 million. These balance sheet changes result in a 215-million-bushel increase in forecast ending stocks to 2.3 billion bushels, 45 million below last year.

The 2017/18 average price received by farmers for corn is lowered \$0.10 per bushel to \$3.30 per bushel.

Foreign coarse grain supplies for 2017/18 are projected higher with a marginal increase in use, reflecting the dominating U.S. changes, and contributing to a 7.5-million-ton rise in projected global ending stocks to 228.5 million.

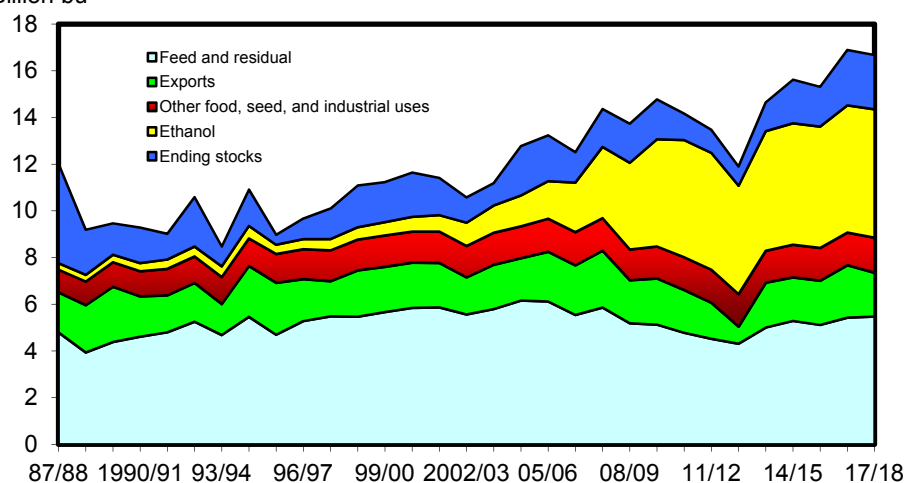
This issue of the *Feed Outlook* contains a special article: "Hay and Forage Situation: The Dakotas and Montana, Early July 2017."

Domestic Outlook

Feed Grain Supplies Up From Last Month and if Realized, Would Be Third Highest on Record

Projected U.S. 2017/18 feed grain supplies are 2 percent below last year's amount at 443.0 million metric tons but are still the third highest after the 2016 and 2015 crops. Beginning stocks are higher than 2016/17, at 64.7 million tons, and imports are expected to be above those of a year ago. Production of 375.1 million tons is projected 27.2 million tons below last year on a smaller corn crop. The smaller expected crop is partly due to some producers moving to soybeans from corn in response to low corn prices.

Figure 1
U.S. corn utilization
Billion bu

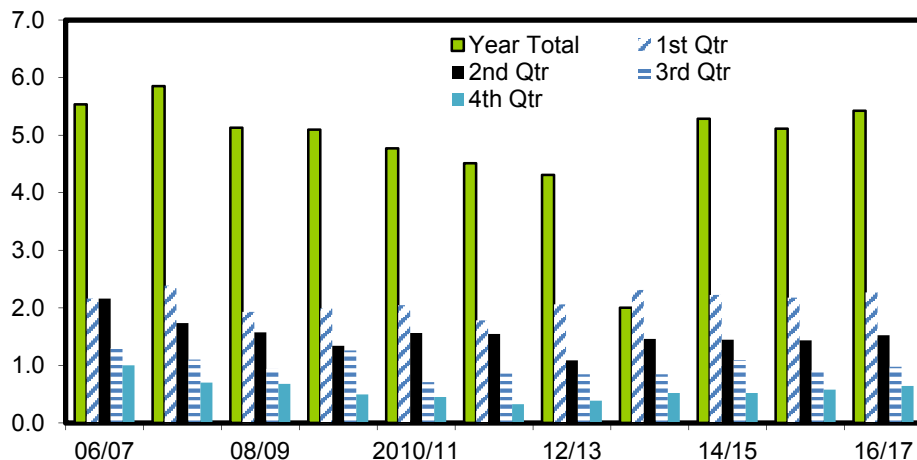


Note: Marketing years 2016/176 and 2017/18 are projected.
Source: USDA, World Agricultural Outlook Board, WASDE.

Projected Feed and Residual Use Up

Projected U.S. 2017/18 feed and residual use for the four feed grains (corn, sorghum, barley, and oats) and wheat is 149.0 million metric tons this month, 2.8 million higher than last year's 146.2 million tons on a September-August marketing year basis.

Figure 2
U.S. corn feed and residual use
 Billion bu

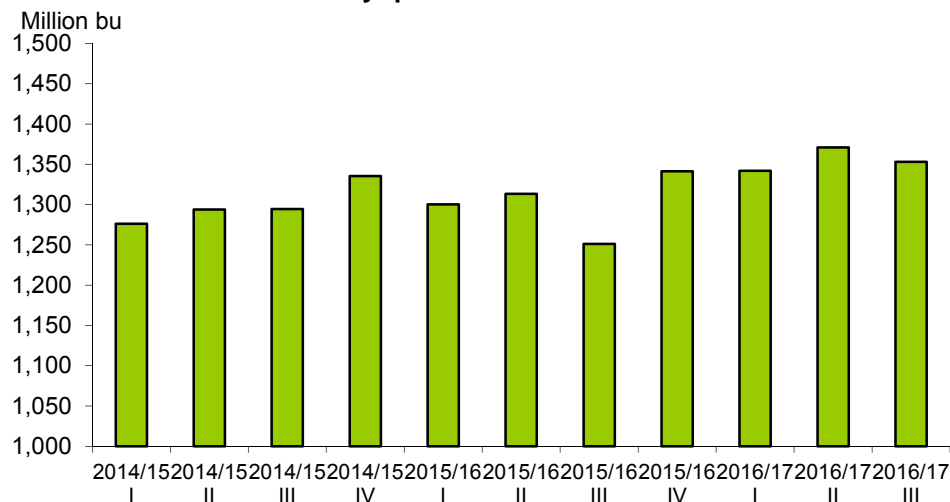


Sources: USDA, Economic Research Service, *Feed Grains Database* and USDA, World Agricultural Outlook Board, *WASDE*.

Grain Consuming Animal Units Projected Higher

Grain consuming animal units (GCAU) for 2017/18 are projected at 96.8 million units, down from last month's 97.3 million. Feed and residual per GCAU is projected at 1.54 tons, 0.02 tons higher than last month and slightly above last year's estimated 1.52 tons. Indices for cattle on feed and hogs were lower than last month while broilers increased.

Figure 3
U.S. corn for ethanol use by quarter
 Million bu



Source: USDA, National Agricultural Statistics Service, *Grains Crushings and Co-Products Production*.

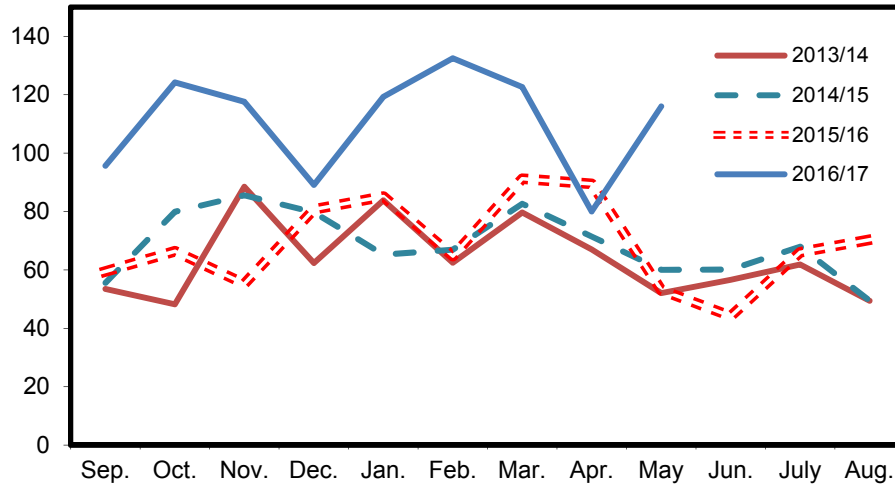
New-Crop Corn Production and Supplies Raised

The June 30 USDA, National Agricultural Statistics Service (NASS) *Acreage* report projects corn planted acreage at 90.9 million acres, 890,000 acres higher than the previous forecast. Adjusting for forecast silage and

nonharvested acres results in a harvest acreage projection of 83.5 million acres. Relative to planting intentions, the largest acreage increases were reported for North Dakota, Nebraska, Michigan, and Iowa. With yield unchanged at 170.7 bushels per acre, projected U.S. 2017/18 corn production is raised 190 million bushels from the previous forecast to 14,255 million bushels, and, if realized, will be the second largest after the 2016 crop.

Large beginning stocks of 2,370 million bushels, the highest since 1988/89, plus production and imports result in the second largest supply on record—16,675 million bushels, surpassed only by 2016/17.

Figure 4
U.S. fuel ethanol exports
 1,000 gal.



Source: USDC, U.S. Census Bureau.

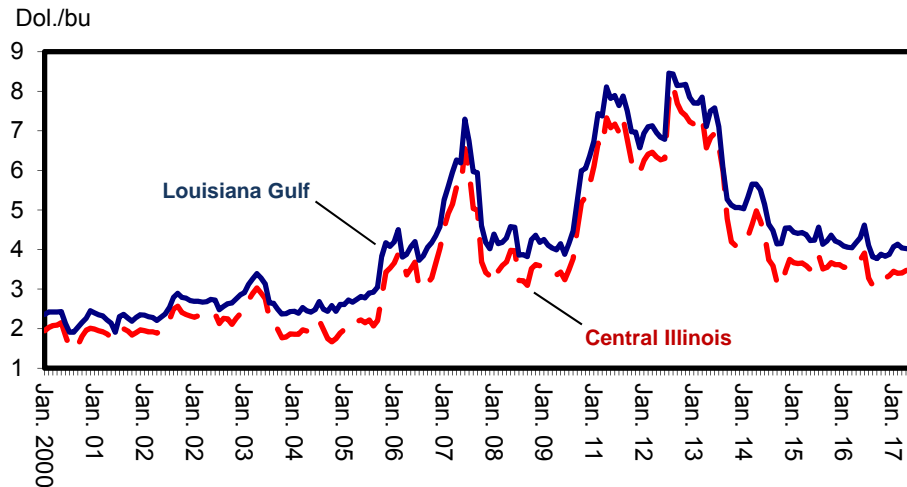
Corn Feed and Residual Raised From Last Month

Corn feed and residual is projected at 5,475 million bushels, 50 million bushels higher than the June forecast on larger production and lower expected prices. The NASS *Grain Stocks* report set June 1 corn stocks at 5,225 million bushels, about 100 million higher than pre-report trade expectations.

Indicated disappearance for the first three quarters of the 2016/17 marketing year, September through May, was record high at 11,703 million bushels, compared to 10,673 million for the same 9 months last year and 11,015 million during the same period in 2014/15. Feed and residual use for the first three quarters of 2016/17 totaled 4,780 million bushels so far this season, while last year’s feed and residual to date was 5,113 million. Exports during the first three quarters of the marketing year totaled 1,774 million bushels, up sharply from 1,205 million during the same period in 2015/16. Food, seed and industrial use totaled 5.148 million, up from 4,938 million the same period a year ago.

Figure 5

Monthly corn (yellow #2) prices for Central Illinois and Louisiana Gulf



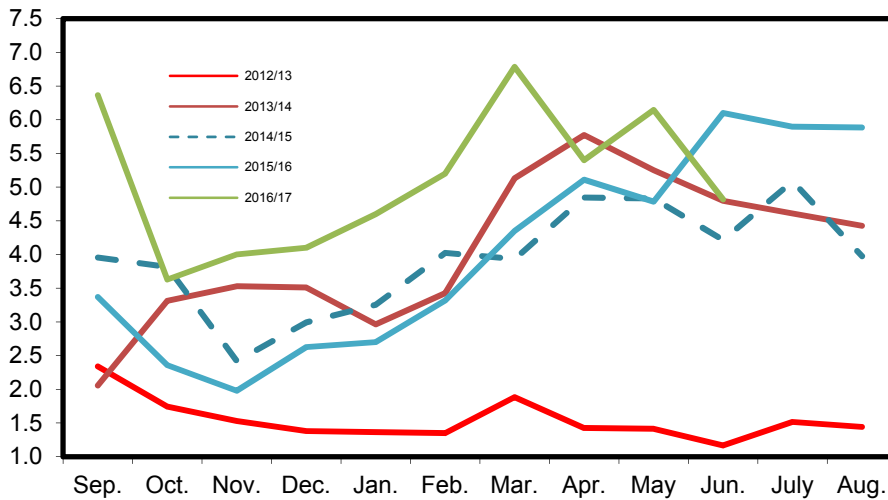
Sources: USDA, Economic Research Service, *Feed Grains Database* and USDA, Agricultural Marketing Service, <http://marketnews.usda.gov/portal/lg>.

With no other changes on the demand side of the balance sheet for 2017/18, ending stocks are raised 215 million bushels, reflecting the increased supplies partly offset by larger feed and residual. Projected ending stocks are 2,325 million bushels, 45 million below last year's amount.

Figure 6

Monthly U.S. corn exports

Mil. metric tons



Source: USD, U.S. Census Bureau, June 2017 *Grain Inspections*.

Projected 2017/17 Corn Price Lowered

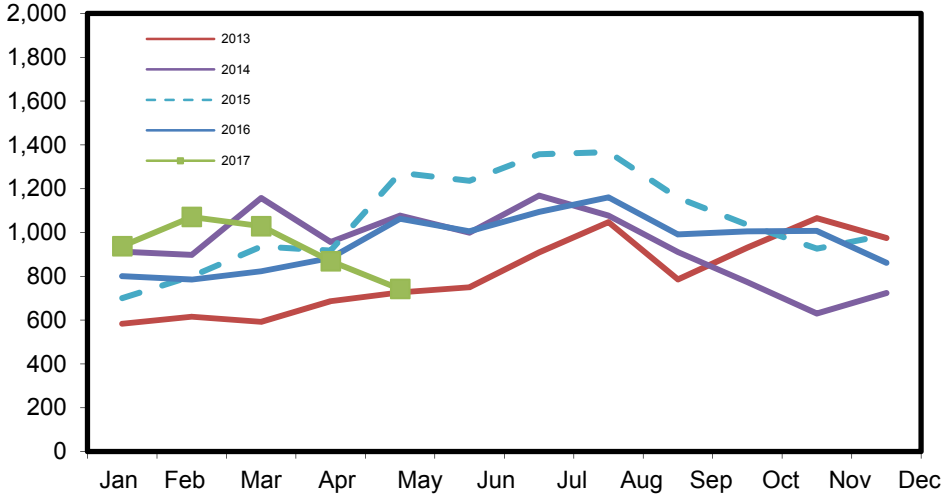
The forecast season-average farm price range for 2017/18 is \$2.90 to \$3.70 per bushel, down \$0.10 on both the low and high ends from last month's forecast, for a midpoint price of \$3.30 per bushel. The projected farm price range for 2016/17 is unchanged this month, with a midpoint of \$3.35 per bushel. This month's projected stocks-to-use ratio is 16.2, compared with 14.8 last month.

Minor Changes to Trade Data Due to Annual Census Revisions

The U.S. Census Bureau issued its annual “13th month” revisions, resulting in mostly small adjustments in trade data, some offsetting, impacting calendar years 2015-16. For 2015/16, corn exports were raised 3.4 million bushels and sorghum raised 1.0 million. During the first two quarters of 2016/17, corn exports are lowered 10.3 million bushels and sorghum are lowered 1.3 million. There were small changes in barley and oat exports for the first half of 2016/17.

Figure 7

U.S. dried distillers grains with solubles exports
1,000 metric tons

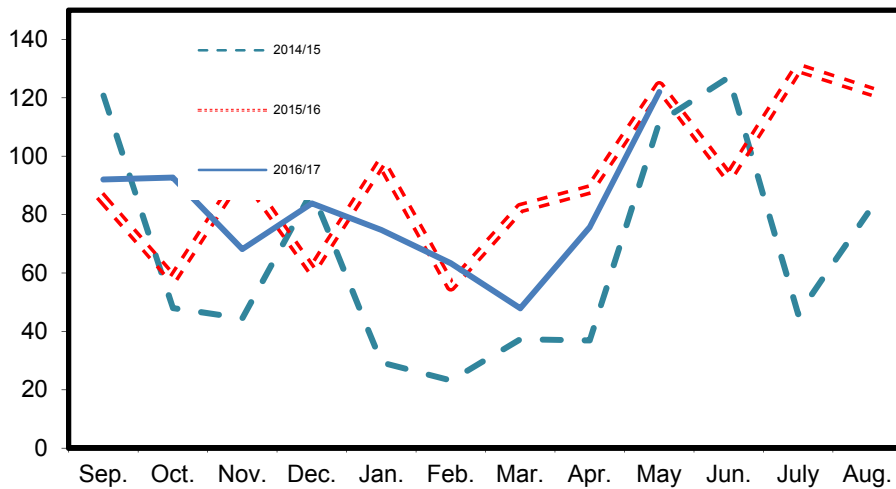


Source: USDC, U.S. Census Bureau.

On the import side, there were fractional increases in 2014/15 and 2015/16 for corn imports. Barley imports were raised by less than 100,000 bushels. For the September-December portion of the 2016/17 marketing year, corn is raised 51,000 bushels. Barley is raised 49,000 bushels, and oats are lowered 312,000 bushels.

Figure 8

U.S. corn gluten feed exports
1,000 metric tons



Source: USDC, U.S. Census Bureau.

Sorghum Area Projected Higher

Total 2017/18 sorghum production is projected 25 million bushels higher this month on larger acreage reported in the NASS *Acreage* report. Planted acreage is projected 0.2 million higher, and harvested acreage is raised 0.4 million. With a slight reduction in sorghum yield reflecting production rounding, the crop is projected at 356 million bushels, 25 million higher than last month's projection. If realized, the crop would be 124 million bushels smaller than last year's 480-million-bushel crop.

Feed and residual is raised 5 million bushels to 60 million this month with the production increase. With no other changes in the demand side of the balance sheet, ending stocks are raised 20 million bushels as the production increase more than offsets the reduction in use.

Sorghum Price Lowered This Month

The projected range for the 2017/18 season-average sorghum price received by farmers is \$2.50 to \$3.30 per bushel, leaving the midpoint of \$2.90, \$0.10 lower than last month's.

Barley Area Declines, Yield Raised

Barley yield for 2017/18 as reported in the NASS July *Crop Production* report is raised 0.9 bushels to 73.5 bushels per acre, which was partly offset by a forecast reduction in harvested area, giving a crop of 142.9 million bushels, 16.0 million smaller than last month's forecast. Larger carryin based on the *Grain Stocks* report combined with lower production results in supply of 266.0 million bushels, 1.4 million below last month's forecast. There are no changes on the demand side of the balance sheet, so the supply reduction is carried through to ending stocks, which are reduced 1.4 million bushels to 73.0 million, 19 million below last year's estimate.

The projected range for the 2017/18 season-average barley price received by farmers is raised \$0.40 on both ends to \$5.05 to \$6.05 per bushel for a midpoint of \$5.55 per bushel, \$0.59 higher than last year. Higher expected prices for malting barley drives the price increase.

Oats Production Lowered for 2017/18

The NASS *Acreage* report estimated 2017/18 oats planted area of 2.5 million acres, 0.2 million acres below March planting intentions. Harvested area is forecast at 0.9 million acres, down 0.1 million. With a 6-bushel reduction in forecast yield to 61.0 bushels per acre, production is pegged at 53.7 million bushels. Combined with a 10-million-bushel increase in beginning stocks from last month based on the *Grain Stocks* report, oats supply is projected at 206.2 million bushels, 2.4 million below last month's forecast. There are no changes to the demand side of the balance sheet for 2017/18. Ending stocks are expected at 34.2 million bushels, 18 million below last season and the lowest since 2013/14.

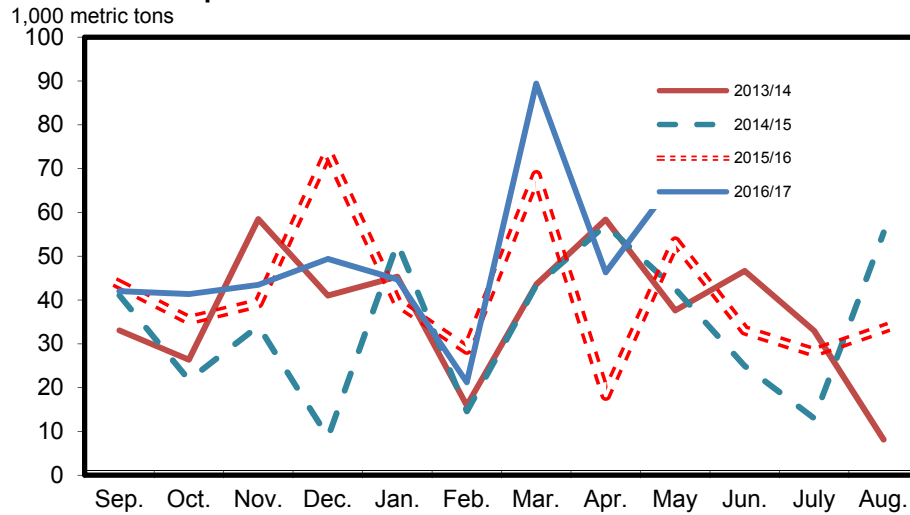
The projected range for the 2017/18 season-average oats price received by farmers is \$2.15 to \$2.65 per bushel for a midpoint of \$2.40 per bushel, \$0.34 above last year. The projected stocks-to-use ratio for oats is lower this season at 19.9, compared with 32.9 last year. During June, futures prices for oats were robust as tight supplies relative to use are expected to support prices during 2017/18.

All Hay Harvested Area Up Marginally in 2017

The NASS June 30 *Acreage* report forecast that producers will increase hay cutting fractionally in 2017 compared with last season. The 53.5 million acres is 0.7 million higher than the March *Prospective Plantings* report

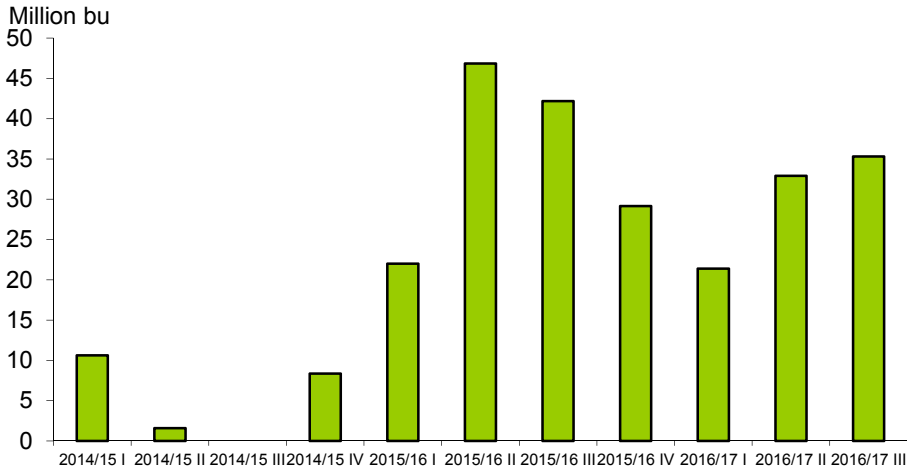
projection of 52.8 million acres. A 0.2-million-acre year-over-year increase in the harvested area for alfalfa (alfalfa and alfalfa mixtures) is projected. Cuttings of other hay are projected to decline. Drought conditions in North and South Dakota and Montana have resulted in increased demand for hay.

Figure 9
U.S. corn oil exports



Source: USDC, U.S. Census Bureau.

Figure 10
U.S. sorghum for ethanol use by quarter



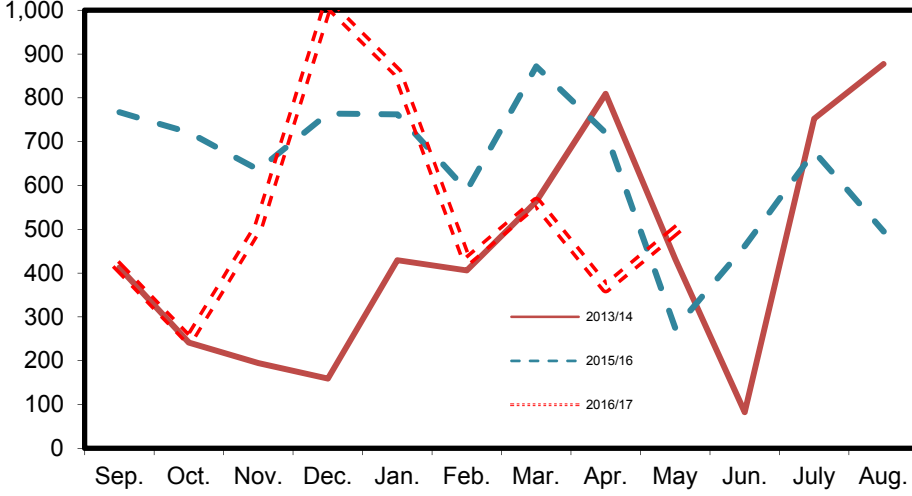
Note: 2014/15 II and III contain months for which data was withheld to avoid disclosing data for individual operations.

Source: USDA, National Agricultural Statistics Service, *Grains Crushings and Co-Products*.

Figure 11

U.S. sorghum exports

1,000 metric tons



Source: USDC, U.S. Census Bureau, March 2017 *Grain Inspections*.

International Outlook

Higher Coarse Grain Production Projected for Both 2016/17 and 2017/18

World coarse grain production is projected to reach 1,316.5 million tons in 2017/18, an increase of 6.2 million from last month's forecast. More than 80 percent of the increase is for the **United States**, while foreign production is forecast up much less, the largest increase being higher barley output projected for **Turkey**. For the 2016/17 projection, coarse grain production is forecast up 2.0 million tons due to an increase in **Argentina, Vietnam, Mexico, and Australia**. The production change and other revisions to 2016/17 supply and demand boost 2017/18 coarse grain beginning stocks (also mainly in the United States) by 3.1 million tons, augmenting supplies.

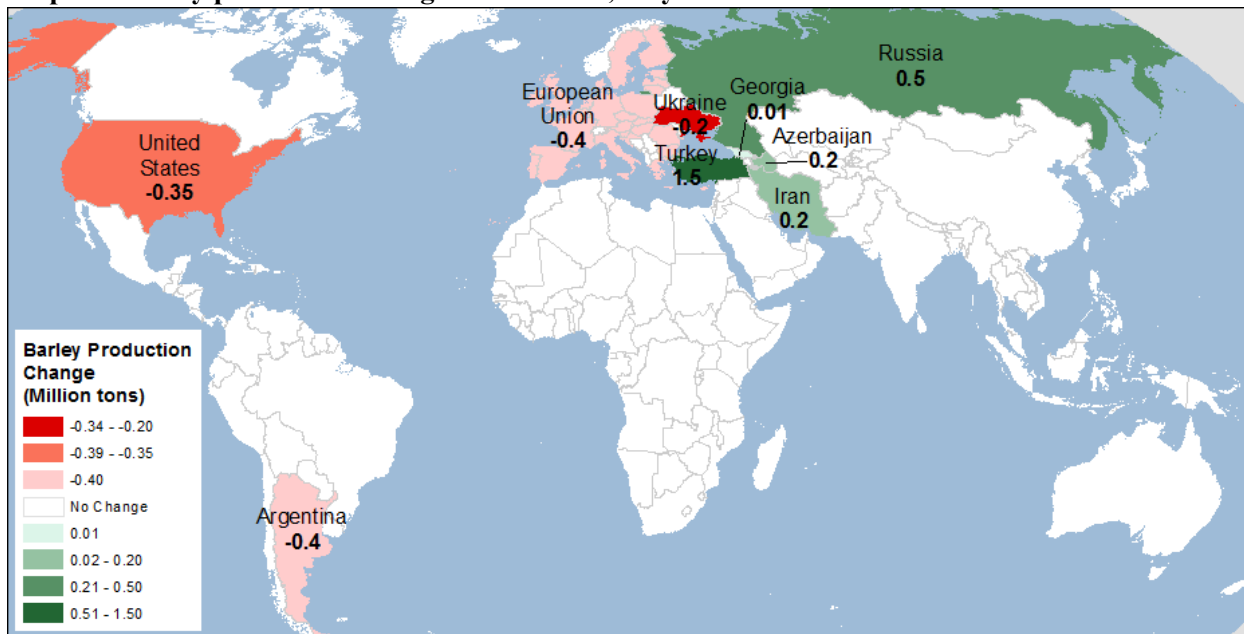
For more information and a visual display of this month's output changes, see table A1 and A2 below.

Table A1 - World and U.S. coarse grain production at a glance (2016/17), July 2017					
	Region or country	Production	Change from previous month ¹	YoY Change ²	Comments
<i>Million tons</i>					
Coarse grain production (total)					
↑	World	1,316.5	+6.1	-45.7	
↑	Foreign	941.1	+1.2	-18.4	Changes are made for several countries and commodities. See table A2.
↑	United States	375.4	+5.0	-27.3	See section on U.S. domestic output.
World production of coarse grains by type of grain					
CORN					
↑	World	1,036.9	+5.0	-31.9	
↑	Foreign	674.8	+0.2	-9.2	Changes in corn production are mostly offsetting. See table A2.
↑	United States	362.1	+4.8	-22.7	See section on U.S. domestic output.
BARLEY					
↑	World	138.5	+1.1	-9.5	
↑	Foreign	135.4	+1.4	-8.3	Changes are made for a number of countries. See table A2.
↓	United States	3.1	-0.3	-1.2	See section on U.S. domestic output.
SORGHUM					
↑	World	59.9	+0.6	-2.7	
	Foreign	50.9	No change	+0.5	Foreign production is virtually unchanged. See table A2.
↑	United States	9.0	+0.6	-3.2	See section on U.S. domestic output.
OATS					
↓	World	22.3	-0.6	-1.0	
↓	Foreign	21.5	-0.4	-0.8	Lower oats output is projected for Australia. See table A2.
↓	United States	0.8	-0.2	-0.2	See section on U.S. domestic output.
¹ Change from previous month. Fractional changes are made for rye and millet; no production changes are made for mixed grains this month.					
² YoY: year over year changes. For changes and notes by country, see table A2.					
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.					

Table A2 - Coarse grain production by country at a glance, July 2017

	Type of crop	Crop year	Production	Change in forecast ¹	YoY ² change	Comments
<i>Million tons</i>						
Coarse grain production by country and by type of grain (2017/18)						
TURKEY						
↑	Barley	June-May	7.0	+1.5	+2.3	Timely rains during the flowering and grain filling stages of crop development are expected to result in a marked improvement in yields. Vegetation Health Index (VHI) in all crop areas is remarkably high.
RUSSIA						
↑	Barley	Jul-Jun	17.5	+0.5	No change	Cool weather and abundant precipitation are expected to boost spring barley yields further.
VIETNAM						
↑	Corn	May-Apr	5.6	+0.6	No change	Revised corn area based on official crop statistics from the Ministry of Agriculture and Rural Development.
EUROPEAN UNION						
↓	Corn	Oct-Sep	61.6	-0.4	+0.9	Bone-dry weather took an extra toll on all Spanish grains, and yields are projected lower this month.
↓	Barley	Jul-Jun	59.1	-0.4	-0.9	See above statement for corn.
ARGENTINA						
↓	Barley	Dec-Nov	3.0	-0.4	-0.3	Lower barley area is projected as rainy weather complicated planting.
AUSTRALIA						
↓	Oats	Nov-Oct	1.1	-0.5	-0.8	Dry weather in May-June is expected to affect winter crops. Projected area is down 0.2 million hectares in line with new estimates from Australian Bureau of Agricultural and Resource Economics.
EAST AND CENTAL-EAST AFRICA						
↑	Corn	Jul-Jun and May-Apr	12.1	+0.1	+0.5	Kenya, Tanzania, and Zambia are the corn basket of east and central-east Africa. Persisting rain deficits in March-May are expected to reduce corn yields. However, according to the countries' ministries of agriculture, corn area is projected higher enough to boost corn output in Kenya and Zambia, even with lower projected yields. In Tanzania, corn output is projected lower. Corn output has been revised based on official data for the past several years for the above countries and for Uganda.
Coarse grain production by country and by type of grain (2016/17)						
ARGENTINA						
↑	Corn	Mar-Feb	41.0	+1.0	+11.0	The increase moves production to a new record high, almost 40 percent larger than the previous (2015/16) crop. Area is projected higher based on Ministry of Agriculture data. Harvesting of the 2016/17 crop is on the way, with 53 percent completed.
VIETNAM						
↑	Corn	May-Apr	5.6	+0.5	+0.3	Revised corn area based on official Government crop statistics.
MEXICO						
↑	Corn	Oct-Sep	27.4	+0.4	+1.4	Revisions based on official Government data.
↓	Sorghum	Oct-Sep	5.1	-0.4	-0.5	Revisions based on official Government data.
↑	Barley	Jul-Jun	1.0	+0.2	+0.2	Revisions based on official Government data.
¹ Change from previous month. Smaller changes for coarse grain output are made for several countries, see map A for changes in <i>barley</i> . ² YoY: year over year changes.						
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.						

Map A – Barley production changes for 2017/18, July 2017



Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution online database.

Projected Foreign 2017/18 Coarse Grain Use Nearly Unchanged This Month

Despite increased supplies and declining prices, projected world coarse grain use in 2017/18 is up only marginally by 1.7 million tons to a record 1,351.2 million, with most of the increase coming from the **United States**. Projected foreign use is up 0.3 million tons, with stronger feed use in **Turkey** (barley), **Vietnam** (corn), and **Argentina** (corn). Partly offsetting are reductions in feed use for **Ukraine** (corn and barley with lackluster developments in the livestock industry and declining production of combined grain feed, as well as with the expectations of higher grain exports and therefore lower domestic availability) and **Australia** (oats). Other revisions in feed use this month reflect changes in production and trade for specific countries.

For more information on this month’s changes in coarse grain domestic use, see table B; for a visual display of this month’s changes in corn feed use, see map B.

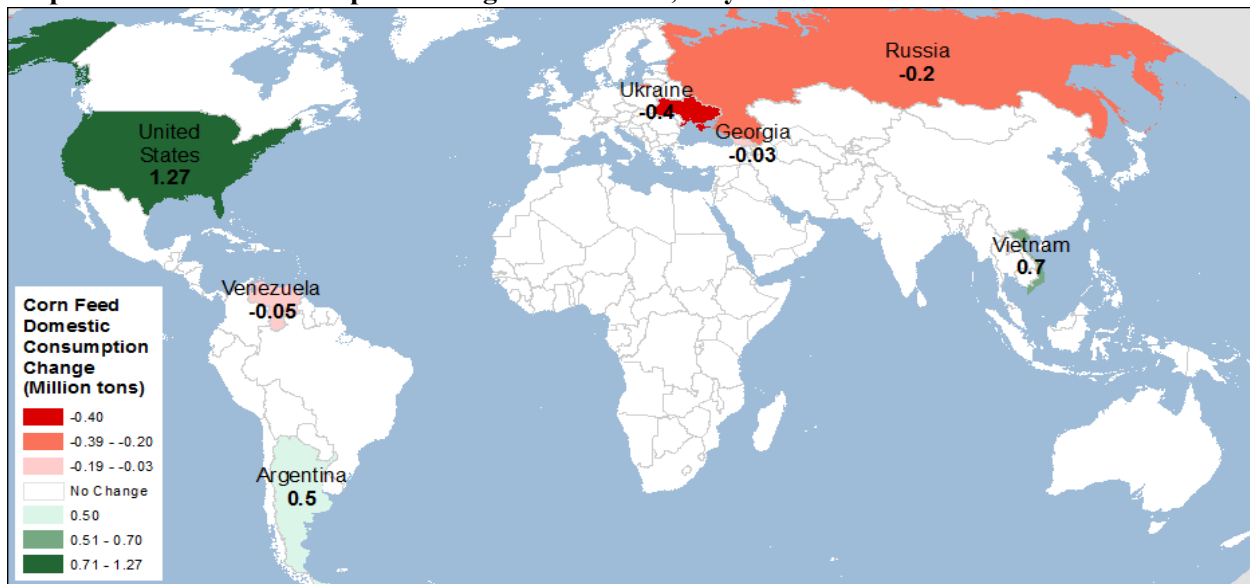
Table B - Coarse grain domestic consumption at a glance (2017/18), July 2017

	Country or region	Domestic consumption	Change ¹	Comments
		<i>Million tons</i>		
↑	World	1,351.2	+1.7	
↑	Foreign	1,023.0	+0.3	Foreign domestic use of corn is raised 0.2 million tons; barley use is up 0.6 million tons, while oats use is down 0.4 million tons; sorghum consumption is fractionally down.
↑	United States	328.3	+1.4	Feed and residual consumption of corn is raised 1.3 million tons while FSI use is unchanged; sorghum feeding is up 0.1 million tons; barley feeding is virtually unchanged. See section on U.S. domestic coarse grains.
↑	Turkey	14.0	+0.9	Based on revised production estimates, barley feed consumption is projected 0.9 million tons higher. See also table A2.
↑	Vietnam	14.6	+0.7	Higher projected corn output for both 2016/17 and 2017/18 and upper revision of corn import estimate for 2016/17 justify further expansion of demand for corn feeding, as robust growth in soybean meal equivalent consumption portends livestock sector expansion.
↑	Argentina	16.8	+0.4	A further increase in corn production prospects for 2016/17 calls for growth in the country's feed and residual use, up 0.5 million tons this month; barley feeding is down 0.1 million tons, reflecting lower projected barley output for 2016/17.
↓	Ukraine	13.1	-0.6	The lackluster developments in Ukrainian livestock (especially in the cattle and hog industry) and the downward trending of production of combined grain feed suggest lower than expected consumption of grain. Feed use for 2017/18 is reduced 0.4 million tons for corn and 0.1 million tons each for barley and sorghum . Downward revisions of feed use are also made for 2016/17 and 2015/16.
↓	Australia	5.7	-0.3	Reduction in oats feed use follows a decline in projected output.

¹Change from previous month. Smaller changes are made for a number of countries; see map B for changes in **corn** domestic consumption.

Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.

Map B – Corn feed consumption changes for 2017/18, July 2017



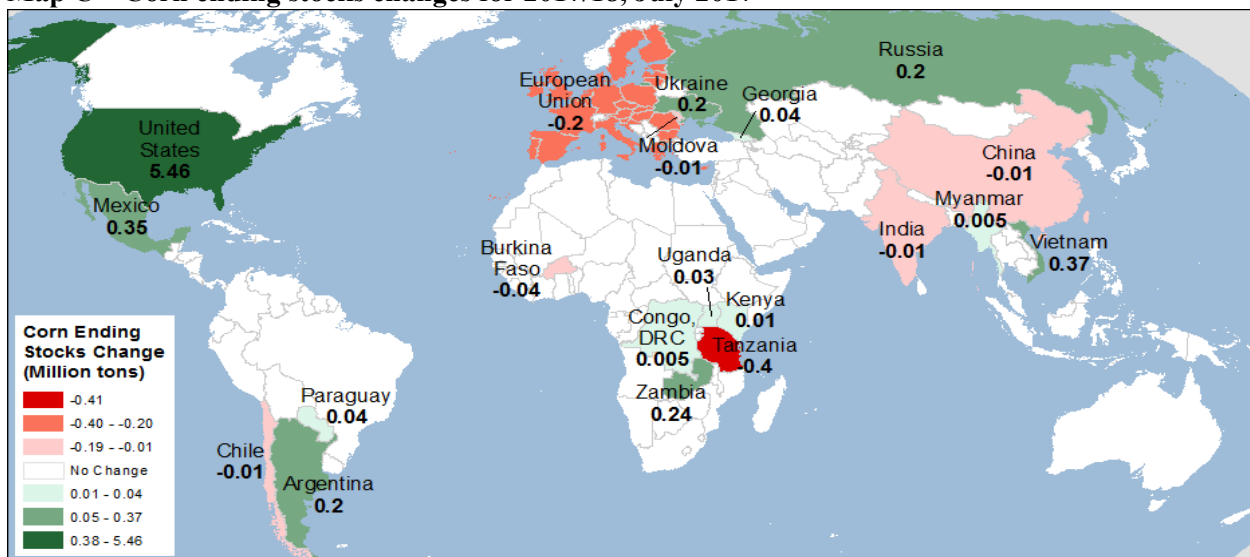
Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution online database.

Global Ending Stocks Projected Higher

Increased 2017/18 coarse grain supplies combine with nearly unchanged use to boost projected world ending stocks 6.9 million tons to 227.9 million, though still the lowest in 4 years. Corn stocks are up 6.5 million tons, with much smaller changes in other coarse grains. Expansion in U.S. stocks represent almost 80 percent of the total increase, while foreign stocks are forecast up 1.0 million tons to 165.5 million. The largest increase in foreign ending stocks this month is for Argentina, up 0.7 million tons, as higher 2016/17 corn production boosts beginning stocks. Other smaller changes are made for a number of countries.

For a visual display of the changes in corn ending stocks, see map C.

Map C – Corn ending stocks changes for 2017/18, July 2017



Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution online database.

World Corn Trade Projections for 2016/17 Are Reduced, 2017/18 Trade Unchanged

Global corn trade for the October-September international trade year 2017/18 is projected up by less than 0.1 million tons to 150.8 million, with a few small changes pretty much offsetting. Brazilian 2017/18 trade year exports are projected 0.5 million tons higher and are partly offset by declines in the EU, Tanzania, and Uganda.

For the current 2016/17 trade year, global corn trade is reduced by 1.7 million tons to reach 144.5 million tons, reflecting several major changes. While the forecast for Brazilian corn exports for the October-September 2017/18 trade year is up (see previous paragraph), Brazil's 2016/17 trade year exports are reduced by 1.0 million tons this month to 22.0 million (Brazilian local-year corn exports (March-February) are left unchanged). The 2016/17 season Brazilian corn is currently being harvested, and while the country is expected to become awash in corn in the near future and its May and June exports were record-high for those months, the exported amounts of corn are not sufficient to reach the current 2016/17 projection. This year's (2016/17) Brazilian soybean harvest is also record-high, although producers are likely to hold onto soybeans given their higher value and export corn first.

Ukrainian corn exports are projected 1.5 million tons higher this month to 20.5 million. The country's pace of corn exports has been brisk, and Ukraine is expanding its export reach far and wide—to Egypt, the European Union (Spain and Netherlands), Vietnam, South Korea, South Africa, Iran, and many other countries—apparently replacing Brazil as a supplier in the world corn market after the latter's unfortunate 2016/17 corn harvest.

U.S. corn exports in 2017/18 are projected to reach 47.5 million tons, unchanged this month. While U.S. supply prospects are increased and the U.S. price projection is reduced, competitors' supplies are also mounting. The 2016/17 corn harvests and exports from the Southern Hemisphere (Argentina and Brazil), coupled with large Northern Hemisphere harvests, imply intense competition for corn exports early in late 2016/17 and into 2017/18.

U.S. 2016/17 corn exports for the October-September international trade year are reduced this month by 1.0 million tons to 55.0 million tons. A projection for the September-August 2016/17 local marketing year is left unchanged at 2.225 billion bushels, a forecast that has not been changed since October 2016, w/hen the pace of U.S. corn exports was still very high. Though June inspections are robust, U.S. corn exports are slowing down as competitors—corn producers in the Southern Hemisphere—enter the market and expand their exports. This supports an assessment of declining U.S. exports in the last quarter of the 2016/17 trade year (July-September), and especially in September, the month when Brazilian corn exports are expected to escalate.

Hay and Forage Situation: The Dakotas and Montana, Early July 2017

By Peter Riley and Tom Capehart¹

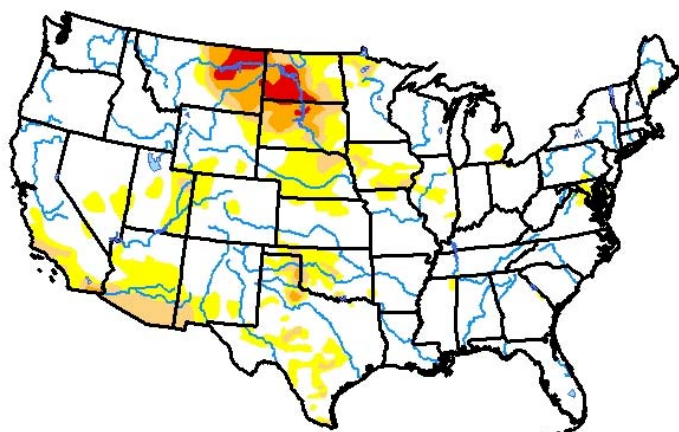
Summary: Demand for hay in the United States has increased substantially in the last several weeks as drought has rapidly worsened in South Dakota, North Dakota, and Montana (see map below; appendix 1 illustrates the rapid increase in drought conditions). However, hay supplies are tight for two reasons. First is the time frame, as producers are cutting or just finishing early cuttings and putting up the hay, not selling it. Second is the presumed poor yields because of the drought. The availability of Conservation Reserve Program acres for grazing will help but is of limited value in the hardest-hit areas, where water-starved native grass has little feed value. Compounding problems are the low levels of beginning stocks going into the 2017/18 marketing year—the lowest since 2013 in Montana and North Dakota and since 2014 in South Dakota.² According to data from USDA’s Agricultural Marketing Service (AMS), hay prices have risen sharply since last year at this time, particularly in South Dakota. If rains do not resume soon, many producers will need to liquidate herds, move cattle to other regions, or buy hay (or other supplemental feeds) from distant locations at high cost.

¹ Peter Riley is an economist with USDA Farm Service Agency and Tom Capehart is the coordinator of the Feed Outlook report.

² As reported as of May 1, 2017. USDA’s National Agricultural Statistics Service only reports hay stocks twice a year, as of May and as of December 1. The hay marketing year starts June 1 in this region.

U.S. Drought Monitor Continental U.S. (CONUS)

July 4, 2017
(Released Thursday, Jul. 6, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	77.65	22.35	8.45	3.83	1.43	0.00
Last Week <i>06-27-2017</i>	78.40	21.60	8.04	3.26	0.97	0.00
3 Months Ago <i>04-04-2017</i>	70.27	29.73	9.83	1.50	0.10	0.00
Start of Calendar Year <i>01-03-2017</i>	53.89	46.11	22.53	8.63	3.15	0.96
Start of Water Year <i>09-27-2016</i>	53.60	46.40	18.96	8.10	3.20	1.16
One Year Ago <i>07-05-2016</i>	55.76	44.24	17.77	6.03	2.51	1.11

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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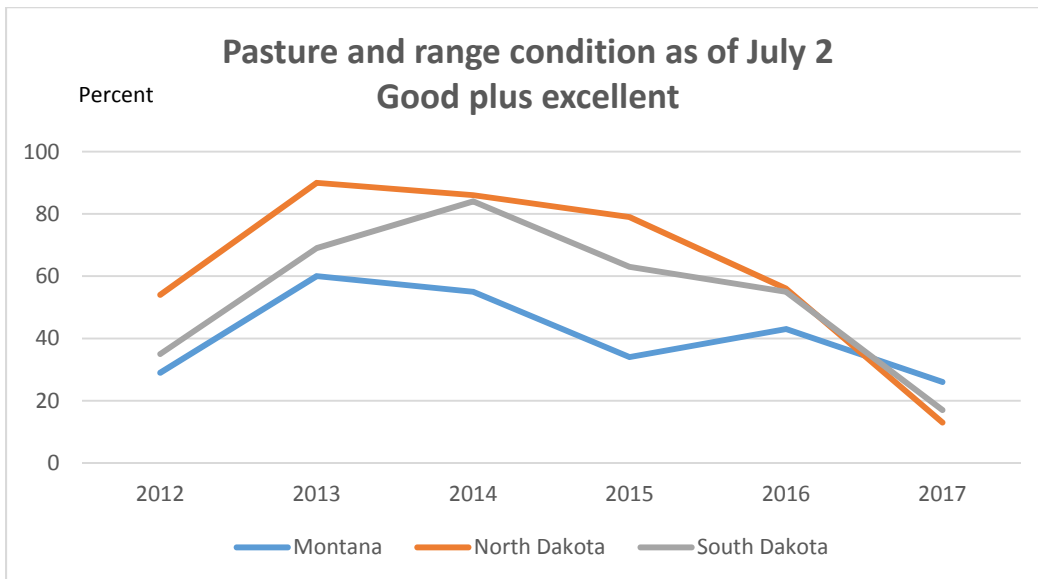
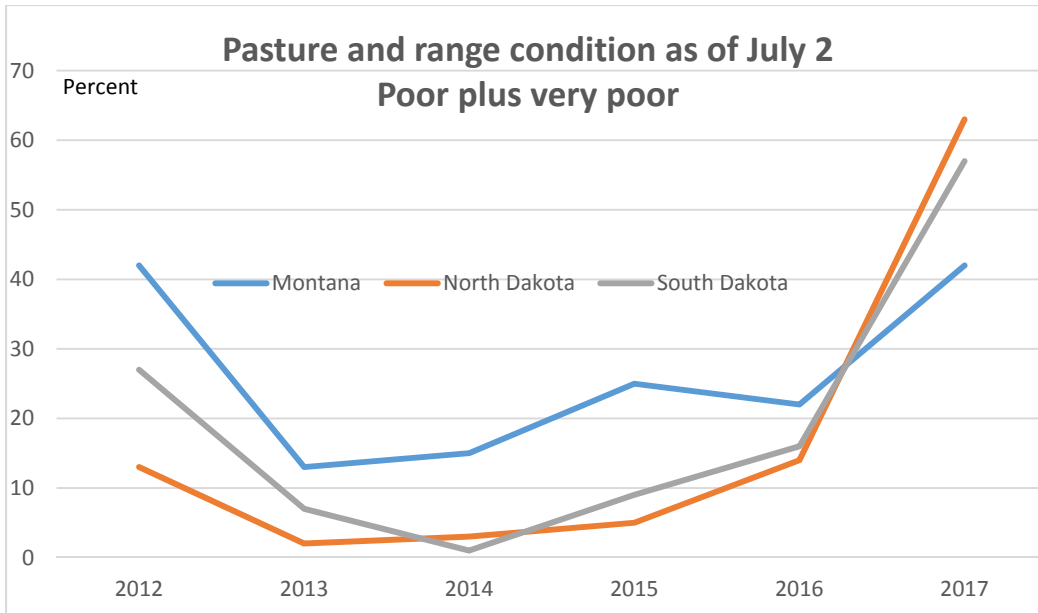
<http://droughtmonitor.unl.edu/>

Cattle Inventories

All three States depend heavily on cattle ranching. South Dakota has the largest herd. As of January 2017, its inventory is ranked eighth nationally. Montana is ranked eleventh, and North Dakota is ranked sixteenth. Cattle inventories in 2017 are about unchanged in Montana and South Dakota from 2016 but are up 6 percent in North Dakota, which is facing the most serious drought among the three States.

Pasture and Range Conditions

Pasture and range conditions have deteriorated sharply in recent weeks. The figures that follow illustrate the current situation compared with early July conditions for the previous 5 years. Note that Statewide ratings mask significant variation within each State.



Because of poor crop conditions in much of the region, a larger share of planted acreage is likely to be grazed out instead of harvested for grain, adding to forage supplies. The nutritional value of distressed crops is compromised, so they could also be of limited value.

Hay Availability

Hay supplies are tightening considerably in the region, but it is impossible to determine how much, particularly since the drought is far from uniform. All three States produce large amounts of hay each year, with South Dakota ranked eighth nationally in 2016 all-hay output, down from third and fourth in the previous 2 years as its production declined. Hay production in Montana and North Dakota ranked ninth and twelfth, respectively, in 2016.

South Dakota hay producers indicated in the March 2017 *Planting Intentions* report from USDA's National Agricultural Statistics Service (NASS) that they would increase harvested acres by 3 percent in 2017. North Dakota area was unchanged, and Montana was down 2 percent. In its June *Acreage* report, relative to planting intentions, NASS forecast hay harvested acres to increase 50,000 acres in both North Dakota and South Dakota and 100,000 acres in Montana. Some small grain producers may also opt to cut their crops for hay rather than harvest them for grain, depending on conditions in the next few weeks.

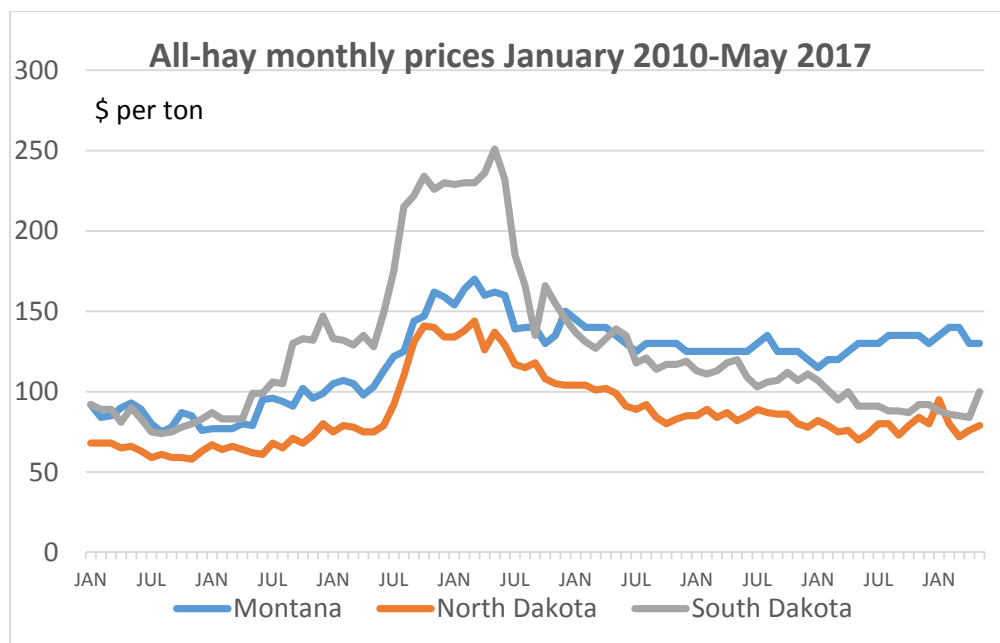
Unfortunately, hay stocks reported on May 1, 2017, were the lowest since 2013 in Montana and North Dakota and since 2014 in South Dakota. These stocks were the equivalent of 17 percent, 25 percent, and 34 percent of 2016 production, respectively, in the three States. NASS estimates hay stocks twice per year, in December and May.

Hay stocks on farm, May 1

	Montana	North Dakota	South Dakota
		<i>Million tons</i>	
2010	0.72	1.31	2.19
2011	1.30	1.25	1.85
2012	1.55	1.70	2.40
2013	0.86	0.88	0.85
2014	0.88	1.20	1.48
2015	1.30	1.52	2.30
2016	1.03	1.45	2.20
2017	0.87	1.09	1.85

Prices

NASS reports monthly average prices by State, but as of May 2017, the most recent month available, prices had not risen much, and they remain well below the peak levels reached in early 2013. This partly reflects reporting before the drought intensified.



AMS provides more current price reports, reflecting local auctions and other bids; these reports provide evidence of rising (but not yet stratospheric) prices. The tables below compare early July AMS data with that of a year ago for Montana and South Dakota. There are no reports with North Dakota data. As shown below, South Dakota hay prices have increased particularly sharply. Note that AMS publishes a limited number of quotes for this region, and recent sales are reported to be light.

Montana hay price, \$ per ton, July 7			South Dakota hay price, \$ per ton, July 5		
	2016	2017		2016	2017
Alfalfa, good			Alfalfa, good		
large squares	125	140	large rounds	86.25	125.25
Alfalfa, fair			Grass, good		
large rounds	100	137.50	large rounds	83.75	121.25
Timothy, premium					
small squares	210	240			
Source: BL_GR310			Source: SF_GR315		

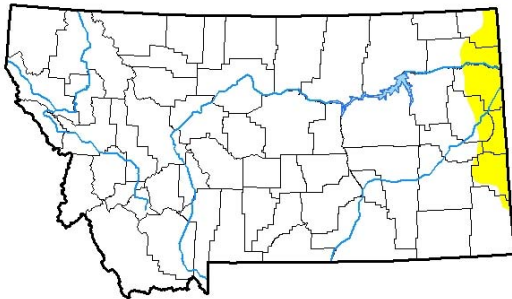
For the latest information on drought-impacted areas, as well as updates on observed weather and current pasture, range, and soil moisture conditions, please see USDA's *Weekly Weather and Crop Bulletin* report:

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1393>

Appendix 1: Comparisons of Drought Conditions

MONTANA: Drought monitor comparisons, May 23 versus July 4, 2017

U.S. Drought Monitor Montana



May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.12	4.88	0.00	0.00	0.00	0.00
Last Week <i>05-16-2017</i>	98.45	1.55	0.00	0.00	0.00	0.00
3 Months Ago <i>02-21-2017</i>	82.26	17.74	2.73	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	74.25	25.75	4.87	0.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	55.14	44.86	25.49	5.86	0.33	0.00
One Year Ago <i>05-24-2016</i>	77.72	22.28	7.84	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

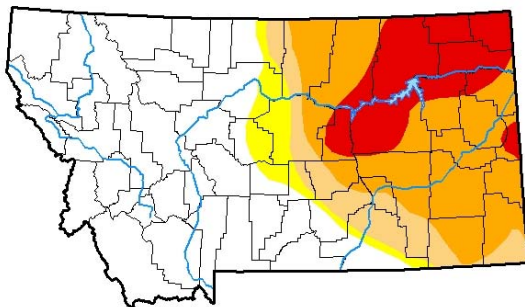
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<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Montana



July 4, 2017

(Released Thursday, Jul. 6, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.28	47.72	42.94	34.93	12.89	0.00
Last Week <i>06-27-2017</i>	52.28	47.72	42.11	25.17	6.77	0.00
3 Months Ago <i>04-04-2017</i>	86.71	13.29	1.11	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	74.25	25.75	4.87	0.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	55.14	44.86	25.49	5.86	0.33	0.00
One Year Ago <i>07-05-2016</i>	68.81	31.19	8.69	0.27	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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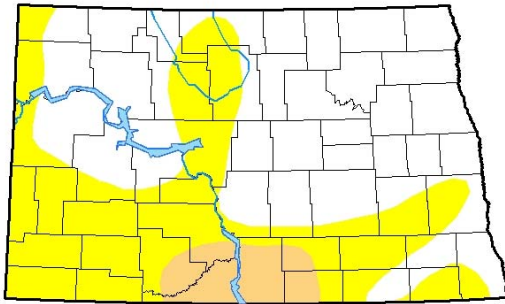
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NORTH DAKOTA: Drought monitor comparisons, May 23 versus July 4, 2017

U.S. Drought Monitor North Dakota



May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	56.39	43.61	6.35	0.00	0.00	0.00
Last Week 05-16-2017	63.79	36.21	0.00	0.00	0.00	0.00
3 Months Ago 02-21-2017	93.81	6.19	0.00	0.00	0.00	0.00
Start of Calendar Year 01-03-2017	93.87	6.13	0.00	0.00	0.00	0.00
Start of Water Year 09-27-2016	96.70	3.30	0.41	0.00	0.00	0.00
One Year Ago 05-24-2016	78.88	21.12	0.00	0.00	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

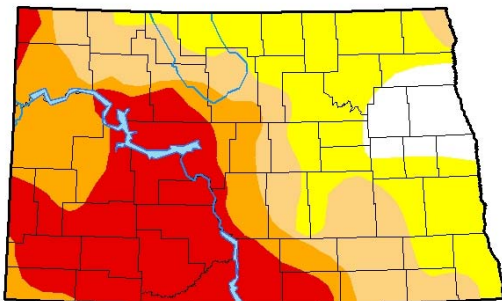
Author:

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U.S. Drought Monitor North Dakota



July 4, 2017

(Released Thursday, Jul. 6, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	6.32	93.68	66.77	46.99	29.29	0.00
Last Week 06-27-2017	0.02	99.98	66.77	46.90	25.06	0.00
3 Months Ago 04-04-2017	93.83	6.17	0.00	0.00	0.00	0.00
Start of Calendar Year 01-03-2017	93.87	6.13	0.00	0.00	0.00	0.00
Start of Water Year 09-27-2016	96.70	3.30	0.41	0.00	0.00	0.00
One Year Ago 07-05-2016	80.53	19.47	4.94	0.48	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

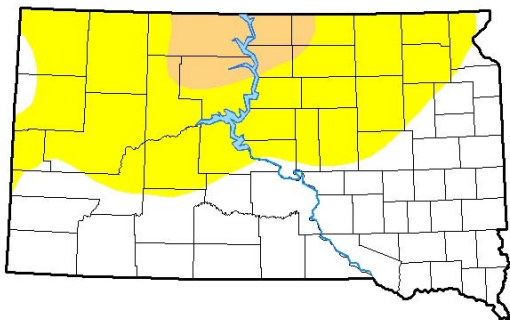
David Simeral
Western Regional Climate Center



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SOUTH DAKOTA: Drought monitor comparisons, May 23 versus July 4, 2017

U.S. Drought Monitor South Dakota



May 23, 2017

(Released Thursday, May. 25, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.79	50.21	6.79	0.00	0.00	0.00
Last Week <i>05-16-2017</i>	65.78	34.22	0.00	0.00	0.00	0.00
3 Months Ago <i>02-21-2017</i>	61.17	38.83	26.01	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	61.22	38.78	26.01	6.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	47.50	52.50	20.95	4.93	1.09	0.00
One Year Ago <i>05-24-2016</i>	91.69	8.31	0.53	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

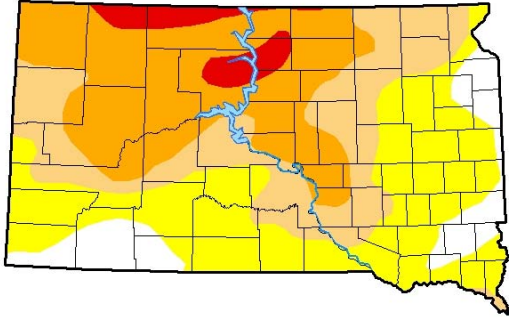
Brad Rippey
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

**U.S. Drought Monitor
South Dakota**

July 4, 2017
(Released Thursday, Jul. 6, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.32	90.68	57.73	34.14	4.30	0.00
Last Week <i>06-27-2017</i>	9.32	90.68	56.69	31.35	2.09	0.00
3 Months Ago <i>04-04-2017</i>	69.93	30.07	16.62	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	61.22	38.78	26.01	6.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	47.50	52.50	20.95	4.93	1.09	0.00
One Year Ago <i>07-05-2016</i>	40.45	59.55	38.36	5.62	0.81	0.00

Intensity:

<p>Yellow: D0 Abnormally Dry</p> <p>Light Orange: D1 Moderate Drought</p> <p>Orange: D2 Severe Drought</p>	<p>Red: D3 Extreme Drought</p> <p>Dark Red: D4 Exceptional Drought</p>
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The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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<http://droughtmonitor.unl.edu/>

Appendix 2: Selected Comments From the Latest NASS Weekly Crop Progress and Condition Reports

Montana, for the week ending July 2, 2017

Crop conditions continue to deteriorate due to the hot, dry weather. Soil moisture conditions continue to decline, with 80 percent of topsoil rated very short to short and 77 percent of subsoil rated very short to short. Last year, 35 percent of topsoil rated very short to short and 38 percent of subsoil rated very short to short.

North Dakota, for the week ending July 2, 2017

Dry conditions persisted over much of the State, especially in the western and southern parts. Much-needed moisture was received in central and eastern North Dakota, with rainfall amounts ranging from 1 to 2 inches. There were some reports of producers in the western part of the State baling wheat because of drought conditions.

South Dakota, for the week ending July 2, 2017

Mostly dry conditions continued to lower soil moisture ratings and stress crops in much of the State. Scattered showers and thunderstorms moved across the southeast and west early in the week. Rainfall amounts were light, with the driest parts of the State receiving no rainfall. Producers began winter

wheat harvest, while second cutting of alfalfa was ongoing. There were 6.1 days suitable for fieldwork. Topsoil moisture supplies rated 32 percent very short, 36 percent short, 30 percent adequate, and 2 percent surplus. Subsoil moisture supplies rated 28 percent very short, 35 percent short, 36 percent adequate, and 1 percent surplus.

Contacts and Links

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Olga Liefert,(international), (202)-694-5155, oliefert@ers.usda.gov

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Data

Feed Grains Database

(<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.

Related Websites

Feed Outlook

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

World Agricultural Supply and Demand Estimates (WASDE)

<https://www.usda.gov/oce/commodity/wasde/>

Grain Circular

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

FAS World Agricultural Production

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

ERS Corn Topic Page

(<http://ers.usda.gov/topics/crops/corn.aspx>)

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Table 1--Feed grains: U.S. quarterly supply and disappearance (million bushels), 7/14/2017

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)	
Corn	2014/15	Sep-Nov	1,232	14,216	5	15,452	1,615	2,225	401	4,241	11,211	3.57	
		Dec-Feb	11,211		6	11,217	1,622	1,445	400	3,468	7,750	3.80	
		Mar-May	7,750		10	7,760	1,673	1,094	540	3,307	4,453	3.75	
		Jun-Aug	4,453		11	4,464	1,687	520	526	2,733	1,731	3.69	
		Mkt yr	1,232	14,216	32	15,479	6,597	5,284	1,867	13,748	1,731	3.70	
	2015/16	Sep-Nov	1,731	13,602	13	15,346	1,631	2,178	301	4,111	11,235	3.65	
		Dec-Feb	11,235		18	11,253	1,652	1,438	341	3,431	7,822	3.64	
		Mar-May	7,822		21	7,843	1,655	914	563	3,132	4,711	3.60	
		Jun-Aug	4,711		16	4,727	1,712	582	696	2,990	1,737	3.55	
		Mkt yr	1,731	13,602	68	15,401	6,650	5,113	1,901	13,664	1,737	3.61	
	2016/17	Sep-Nov	1,737	15,148	14	16,899	1,691	2,275	548	4,514	12,386	3.25	
		Dec-Feb	12,386		12	12,398	1,710	1,529	537	3,777	8,621	3.39	
		Mar-May	8,621		17	8,638	1,747	976	689	3,413	5,225	3.46	
		Mkt yr	1,737	15,148	55	16,940	6,920	5,425	2,225	14,570	2,370	3.25-3.45	
	2017/18	Mkt yr	2,370	14,255	50	16,675	7,000	5,475	1,875	14,350	2,325	2.90-3.70	
	Sorghum	2014/15	Sep-Nov	34.03	432.58	0.21	466.82	10.60	149.98	83.64	244.23	222.59	3.63
			Dec-Feb	222.59		0.12	222.71	1.80	2.37	98.69	102.86	119.86	4.17
			Mar-May	119.86		0.00	119.86	1.43	-14.99	99.13	85.57	34.29	4.41
			Jun-Aug	34.29		0.04	34.33	1.18	-55.54	70.28	15.92	18.41	
			Mkt yr	34.03	432.58	0.38	466.98	15.01	81.82	351.75	448.57	18.41	4.03
2015/16		Sep-Nov	18.41	596.75	3.60	618.76	22.14	159.65	114.44	296.23	322.54	3.54	
		Dec-Feb	322.54		0.98	323.51	41.77	-6.14	86.30	121.93	201.58	3.17	
		Mar-May	201.58		0.01	201.59	43.31	-5.53	73.46	111.24	90.35	3.10	
		Jun-Aug	90.35		0.01	90.36	29.73	-41.39	65.38	53.73	36.63	3.33	
		Mkt yr	18.41	596.75	4.59	619.75	136.95	106.58	339.58	583.12	36.63	3.31	
2016/17		Sep-Nov	36.63	480.26	0.00	516.90	21.65	142.68	44.43	208.75	308.15	2.62	
		Dec-Feb	308.15		0.00	308.15	33.06	3.77	90.79	127.62	180.53	2.69	
		Mar-May	180.53		0.00	180.53	35.33	2.23	57.48	95.03	85.50	2.77	
		Mkt yr	36.63	480.26	1.00	517.89	110.00	130.00	225.00	465.00	52.89	2.60-2.70	
2017/18		Mkt yr	52.89	356.00		408.89	100.00	60.00	200.00	360.00	48.89	2.50-3.30	

Table 1--Feed grains: U.S. quarterly supply and disappearance, cont. (million bushels), 7/14/2017

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	2014/15	Jun-Aug	82	182	7	271	39	48	4	91	180	5.69	
		Sep-Nov	180		5	184	38	-14	4	28	156	5.25	
		Dec-Feb	156		6	163	37	5	3	44	118	5.07	
		Mar-May	118		6	124	37	4	4	45	79	4.86	
		Mkt yr	82	182	24	287	152	43	14	209	79	5.30	
	2015/16	Jun-Aug	79	218	4	301	40	38	3	82	219	5.39	
		Sep-Nov	219		4	223	38	0	4	43	180	5.52	
		Dec-Feb	180		7	187	37	10	3	50	138	5.66	
		Mar-May	138		4	141	38	1	1	39	102	5.43	
		Mkt yr	79	218	19	315	153	50	11	213	102	5.52	
	2016/17	Jun-Aug	102	199	2	304	40	32	1	73	230	4.99	
		Sep-Nov	230		2	232	39	0	1	40	193	4.78	
		Dec-Feb	193		2	195	37	12	1	50	145	5.04	
		Mar-May	145		3	148	37	1	2	40	108	4.96	
		Mkt yr	102	199	10	311	153	46	4	203	108	4.96	
	2017/18	Mkt yr	108	143	15	266	153	35	5	193	73	5.05-6.05	
	Oats	2014/15	Jun-Aug	25	70	27	122	18	30	1	48	74	3.34
			Sep-Nov	74		25	99	18	14	0	32	67	3.16
			Dec-Feb	67		32	99	17	22	0	40	59	3.08
			Mar-May	59		25	84	24	6	1	31	54	2.89
Mkt yr			25	70	109	204	77	71	2	150	54	3.21	
2015/16		Jun-Aug	54	90	18	161	18	49	0	68	94	2.15	
		Sep-Nov	94		26	120	18	19	1	37	83	2.08	
		Dec-Feb	83		25	108	17	15	0	33	75	2.09	
		Mar-May	75		16	91	24	10	1	34	57	2.11	
		Mkt yr	54	90	86	229	77	93	2	172	57	2.12	
2016/17		Jun-Aug	57	65	21	142	18	44	1	64	79	1.87	
		Sep-Nov	79		28	106	19	11	1	31	75	2.03	
		Dec-Feb	75		24	100	18	18	1	37	63	2.35	
		Mar-May	63		18	81	23	4	1	29	52	2.42	
		Mkt yr	57	65	90	212	78	78	3	159	52	2.06	
2017/18		Mkt yr	52	54	100	206	80	90	2	172	34	2.15-2.65	

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: 7/14/2017

Table 2--Feed and residual use of wheat and coarse grains, 7/14/2017

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)
2015/16	Q1 Sep-Nov	55.3	4.1	0.0	0.3	59.7	-2.9	56.8		
	Q2 Dec-Feb	36.5	-0.2	0.2	0.3	36.9	0.1	37.0		
	Q3 Mar-May	23.2	-0.1	0.0	0.2	23.3	-1.2	22.1		
	Q4 Jun-Aug	14.8	-1.1	0.7	0.7	15.2	7.3	22.4		
	MY Sep-Aug	129.9	2.7	1.0	1.5	135.0	3.2	138.3	94.2	1.5
2016/17	Q1 Sep-Nov	57.8	3.6	0.0	0.2	61.7	-0.8	60.9		
	Q2 Dec-Feb	38.8	0.1	0.3	0.3	39.5	-0.6	38.9		
	Q3 Mar-May	24.8	0.1	0.0	0.1	25.0	-1.9	23.1		
	MY Sep-Aug	137.8	3.3	1.0	1.4	143.4	2.8	146.2	95.9	1.5
2017/18	MY Sep-Aug	139.1	1.5	1.1	1.6	143.2	5.8	149.0	96.8	1.5

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, 7/14/2017

Mkt year and month 1/	Corn, No. 2 yellow, Central IL (dollars per bushel)			Corn, No. 2 yellow, Gulf ports, LA (dollars per bushel)			Sorghum, No. 2 yellow, Gulf ports, LA (dollars per cwt)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Sep	3.16	3.55	3.09	4.14	4.22	3.78	7.91	8.08	
Oct	3.09	3.67	3.27	4.15	4.36	3.88	8.52	8.23	
Nov	3.45	3.62	3.28	4.54	4.22	3.83	9.04	7.89	
Dec	3.75	3.62	3.34	4.55	4.17	3.88	9.85		
Jan	3.67	3.55	3.45	4.44	4.09	4.07	10.41		
Feb	3.65	3.56	3.51	4.41	4.06	4.14	10.70		
Mar	3.66	3.54	3.40	4.43	4.05	4.04			
Apr	3.59	3.61	3.41	4.38	4.17	3.98	9.97		
May	3.49	3.74	3.47	4.23	4.30	4.03	7.44		
Jun	3.52	3.91	3.49	4.24	4.62	4.01			7.56
Jul	3.85	3.28		4.56	4.11				
Aug	3.51	3.09		4.14	3.82		8.09		
Mkt year	3.53	3.56		4.35	4.18		9.10	8.07	
	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)		
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18
Jun	2.59	2.36	2.05			4.70	2.89	2.58	2.95
Jul	2.70	2.33					2.82	2.61	
Aug	2.41	2.08					2.63	2.34	
Sep	2.39	1.95		4.95			2.70	2.29	
Oct	2.57	2.00		4.95			2.58	2.67	
Nov	2.60	2.00					2.67	2.84	
Dec	2.60	2.00					2.64	2.92	
Jan	2.58	2.00					2.60	2.97	
Feb	2.50	2.00					2.60	3.07	
Mar	2.46	2.02			4.70		2.43	2.90	
Apr	2.45	2.05					2.49	2.86	
May	2.44	2.05					2.49	2.88	
Mkt year	2.52	2.07		4.95			2.63	2.74	

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>.

Table 4--Selected feed and feed byproduct prices (dollars per ton), 7/14/2017

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		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
	Oct	381.50	327.97	323.26	346.88	292.50	241.88	90.13	96.00	77.00	549.38	509.38
Nov	441.40	308.60	322.42	313.13	291.88	221.00	105.13	109.63	83.50	581.88	477.50	477.50
Dec	431.74	289.78	321.03	334.38	265.00	217.50	143.30	113.13	92.83	613.50	482.25	501.67
Jan	380.03	279.57	332.34	313.75	248.75	223.50	135.25	109.63	97.50	632.50	452.50	502.50
Feb	370.39	273.61	334.32	302.50	238.13	221.88	117.25	102.38	88.13	631.25	457.50	516.50
Mar	357.83	276.23	320.34	310.50	216.50	210.63	107.20	87.00	87.13	613.00	445.50	505.63
Apr	336.61	303.81	305.67	288.13	207.50	195.00	83.13	73.25	75.00	575.63	434.00	501.13
May	320.23	376.36	293.68	274.38	242.50	179.50	72.25	87.00	71.00	549.38	464.10	485.30
Jun	335.03	408.58		281.00	284.00	179.38	74.40	107.13	68.38	571.60	568.13	475.75
Jul	375.48	371.49		299.38	280.00		91.25	95.01		560.00	573.13	
Aug	357.85	340.80		295.63	280.00		88.75	90.30		550.63	507.20	
Sep	333.63	337.95		293.50	285.00		95.50	85.38		525.00	469.38	
Mkt yr	368.48	324.56		304.43	260.98		100.29	96.32		579.48	486.71	

Mkt year and month 2/	Meat and bone meal, Central US			Distillers dried grains, Central Illinois, IL			Wheat middlings, Kansas City, MO			Alfalfa hay, weighted-average farm price 2/	
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2015/16	2016/17
	Oct	385.00	291.88	237.50	96.00	123.13	116.25	111.48	105.93	79.43	155.00
Nov	383.79	266.25	229.00	113.13	132.63	111.70	106.87	106.53	85.53	147.00	130.00
Dec	424.22	221.67	211.67	159.30	133.13	104.84	135.83	99.55	101.62	149.00	129.00
Jan	382.49	200.13	255.60	186.50	132.50	96.30	140.93	104.16	98.25	141.00	128.00
Feb	370.63	193.75	285.00	187.13	136.63	98.88	124.85	97.89	84.66	137.00	129.00
Mar	376.00	261.00	284.38	189.50	134.50	98.25	1,118.55	68.64	80.76	139.00	135.00
Apr	390.63	316.25	266.25	191.00	122.38	99.25	81.93	65.12	58.03	154.00	148.00
May	368.75	310.10	245.50	178.50	141.10	100.50	64.25	60.72	48.41	147.00	155.00
Jun	313.50	345.00		157.50	170.50	105.25	60.27	57.94		142.00	
Jul	333.75	381.67		153.50	149.38		77.96	61.48		140.00	
Aug	388.75	347.00		115.13	130.90		92.72	60.61		138.00	
Sep	344.00	285.63		139.30	127.75		112.67	64.43		137.00	
Mkt yr	371.79	285.03		155.54	136.21		185.69	79.42		158.00	138.00

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

2/ May 1-April 30 marketing year. U.S. season-average price based on monthly price received by farmers weighted by monthly marketings.

Source: 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, seed, and industrial use (million bushels), 7/14/2017

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
	Q2 Dec-Feb	108.82	81.39	58.34	1,316.28	36.58	50.43	0.00	1,651.83
	Q3 Mar-May	125.18	89.99	57.84	1,264.80	38.27	50.92	27.93	1,654.93
	Q4 Jun-Aug	127.30	93.74	61.68	1,342.34	33.27	51.13	2.63	1,712.09
	MY Sep-Aug	472.11	337.45	240.17	5,223.61	143.00	203.10	30.56	6,650.00
2016/17	Q1 Sep-Nov	113.17	88.81	59.93	1,343.08	35.78	49.92	0.00	1,690.67
	Q2 Dec-Feb	106.39	87.76	56.08	1,371.14	36.35	52.33	0.00	1,710.05
	Q3 Mar-May	119.64	96.14	59.72	1,353.58	36.72	54.45	27.20	1,747.44
	MY Sep-Aug	480.00	360.00	250.00	5,450.00	146.00	204.30	29.70	6,920.00
2017/18	MY Sep-Aug	490.00	370.00	255.00	5,500.00	149.00	206.50	29.50	7,000.00

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

Source: Calculated by USDA, Economic Research Service.

Date run: 7/13/2017

Table 6--Wholesale corn milling product and byproduct prices, 7/14/2017

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)	
	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17
	Sep	17.80	16.71	19.47	18.38	14.20	13.21	37.00	39.00	23.25
Oct	17.96	17.06	19.63	18.73	14.29	13.39	37.00	39.00	23.25	26.75
Nov	17.53	16.89	19.20	18.56	14.95	13.87	37.00	39.00	23.25	26.75
Dec	17.50	16.84	19.17	18.51	14.80	14.23	37.00	39.00	23.25	26.75
Jan	17.42	17.07	19.09	18.74	14.62	14.05	39.00	39.00	26.75	28.25
Feb	17.44	17.13	19.11	18.80	14.35	14.20	39.00	39.00	26.75	28.25
Mar	17.13	17.06	18.92	18.40	14.71	14.41	39.00	39.00	26.75	28.25
Apr	17.70	16.99	19.37	18.58	14.71	14.29	39.00	39.00	26.75	28.25
May	18.21	16.91	19.88	18.58	15.10	14.38	39.00	39.00	26.75	28.25
Jun	18.27	16.89	19.94	18.56	15.40	14.74	39.00	39.00	26.75	28.25
Jul	17.03		18.70		15.43		39.00		26.75	
Aug	16.64		18.31		13.63		39.00		26.75	
Mkt year 2/	17.55		19.23		14.68		38.33		25.58	

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: 7/13/2017

Table 7--U.S. feed grain imports by selected sources (1,000 metric tons) 1/, 7/14/2017

Import and country/region	----- 2014/15 -----		----- 2015/16 -----		----- 2016/17 -----		
	Mkt year	Jun-May	Mkt year	Jun-May	Mkt year	Jun-May	
Oats	Canada	1,731	1,731	1,378	1,378	1,508	1,508
	Sweden	72	72	62	62	27	27
	Finland	62	62	34	34	21	21
	All other countries	12	12	0	0	0	0
	Total 2/	1,876	1,876	1,475	1,475	1,556	1,556
Malting barley	Canada	334	334	285	285	103	103
	All other countries	28	28	0	0	17	17
	Total 2/	362	362	285	285	119	119
Other barley 3/	Canada	147	147	116	116	89	89
	All other countries	4	4	4	4	2	2
	Total 2/	152	152	119	119	90	90

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: 7/13/2017

Table 8--U.S. feed grain exports by selected destinations (1,000 metric tons) 1/, 7/14/2017

Export and country/region		----- 2014/15 -----		----- 2015/16 -----		2016/17
		Mkt year	Sep-May	Mkt year	Sep-May	Sep-May
Corn	Japan	12,003	8,436	10,439	6,481	10,222
	Mexico	11,333	8,116	13,337	9,804	10,014
	Colombia	4,371	3,644	4,548	4,008	3,829
	South Korea	3,934	2,705	2,964	1,223	4,786
	Peru	2,555	1,985	2,383	1,653	2,288
	China (Taiwan)	1,839	1,331	2,038	975	2,641
	Canada	1,490	1,138	1,014	743	551
	Egypt	1,235	679	852	300	277
	Saudi Arabia	1,185	790	1,389	689	1,994
	Guatemala	852	545	906	654	715
	Costa Rica	774	559	552	346	598
	China (Mainland)	747	427	321	262	155
	Venezuela	710	485	1,155	553	226
	Dominican Republic	607	456	253	134	674
	El Salvador	538	402	631	476	398
	Panama	450	313	392	272	395
	Honduras	428	298	550	402	380
	European Union-27	361	151	413	73	387
	Morocco	298	289	450	209	852
	Jamaica	282	220	283	197	196
	Algeria	239	180	663	168	91
	Nicaragua	191	141	258	154	235
Iran	138	73	0.095	0.095	0.031	
New Zealand, No Islands	106	78	55	55	12	
Trinidad And Tobago	89	59	92	70	61	
All other countries	666	565	2,349	712	3,097	
Total 2/	47,421	34,065	48,288	30,613	45,073	
Sorghum	China (Mainland)	8,328	6,661	7,034	5,733	3,815
	Sub-Saharan Africa	486	386	593	474	392
	Japan	83	73	79	60	200
	Mexico	21	16	625	432	464
	All other countries	17	13	296	267	23
	Total 2/	8,935	7,150	8,626	6,965	4,895
Barley			----- 2015/16 -----		----- 2016/17 -----	
			Mkt year	Jun-May	Mkt year	Jun-May
	Mexico		142	142	2	2
	Canada		52	52	63	63
	Morocco		14	14		
	China (Taiwan)		7	7	4	4
	All other countries		21	21	26	26
Total 2/		235	235	95	95	

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: 7/13/2017