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Situation and Outlook

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Feed Outlook

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2017/18 U.S. Corn Yield Lowered, Sorghum Raised

The next release is September 14, 2017.

Approved by the World Agricultural Outlook Board.

This month, the U.S. feed grain supply for 2017/18 is projected 102 million bushels lower on a 1.2-bushel decline in corn yield to 169.5 bushels per acre. U.S. corn exports are projected down 25 million bushels to 1.9 billion, while a 25-million-bushel cut in feed and residual use brings total use to 14.3 billion. Carryout of 2.3 billion bushels is down 52.0 million bushels. The 2017/18 average corn price received by farmers is unchanged at $3.30 per bushel. Projected sorghum production is raised this month to 369 million bushels on a 2.6-bushel-per-acre increase in yield for 2017/18.

World 2017/18 coarse grain production is projected slightly lower this month. Foreign corn production is reduced but is fully offset by increased output of barley, rye, and millet. Foreign coarse grain trade is projected higher, led by Brazil and Ukraine, while U.S exports prospects are reduced.

Domestic Outlook

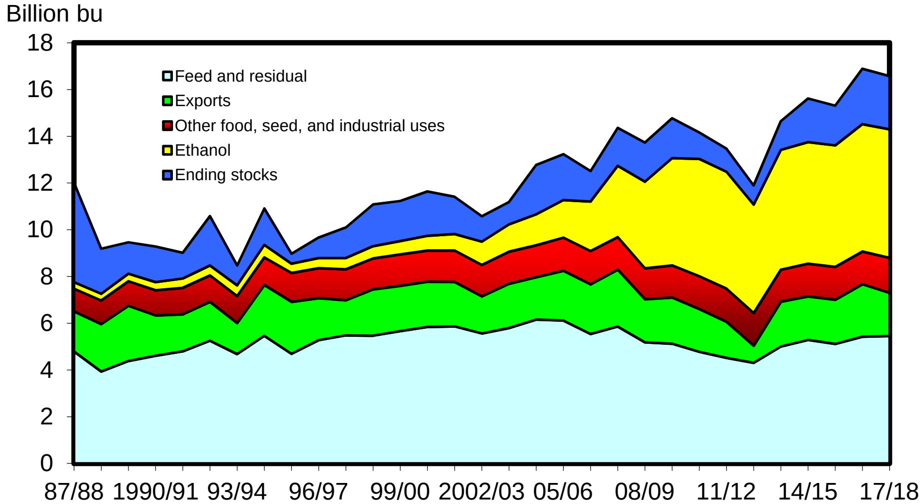
Feed Grain Supplies Lower This Month But Still Second Highest on Record

Projected U.S. 2017/18 feed grain supplies are 2.3 million metric tons below last month's forecast at 440.7 million tons, below the 2016/17 record high. Beginning stocks and imports are unchanged this month. The change in supply is due to lower corn production offsetting higher sorghum production. Production of 372.7 million tons is forecast 2.3 million tons below last month. Both feed and residual and exports are reduced in this month's forecast. Ending stocks are lowered 1.3 million tons to 61.1 million, 3.6 million tons below the 2016/17 estimate.

Feed and Residual Use Down on a Smaller Crop

Projected U.S. 2017/18 feed and residual use for the four feed grains (corn, sorghum, barley, and oats) and wheat is 148.3 million metric tons this month, 0.7 million lower than last month's projection but 1.9 million above the 2016/17 amount of 146.4 million tons on a September-August marketing year basis. Feed and residual per grain consuming animal unit (GCAU) is projected at 1.52 tons, 0.02 tons below last month's estimate.

Figure 1
U.S. corn utilization



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

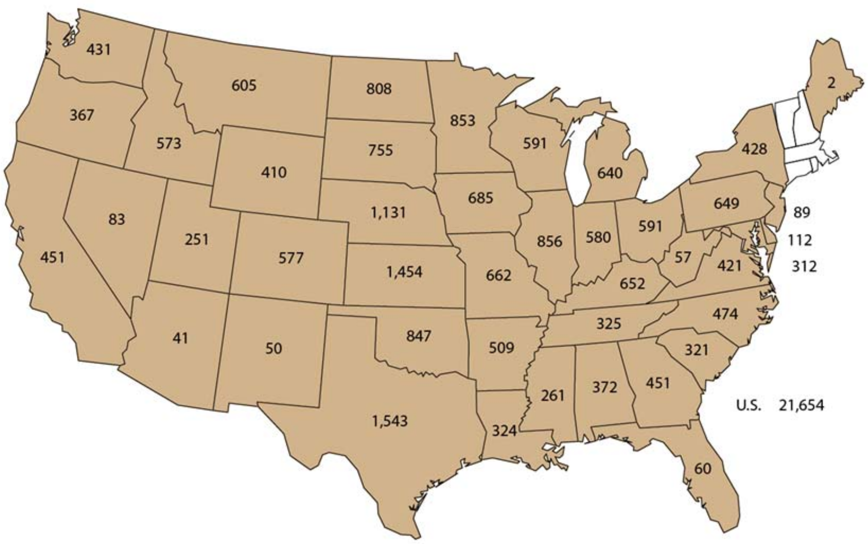
Grain Consuming Animal Units Projected Higher

Grain consuming animal units for 2017/18 are projected at 97.6 million units this month, 0.8 million above last month's forecast. The 2016/17 estimate is 96.8 million units. Cattle placements continue higher for 2017. Pork, poultry, and egg trends are unchanged from last month. Feed and residual use per GCAU is projected at 1.52 tons this month, down 0.02 million from last month and about the same as 2016/17.

New-Crop Corn Production Lowered, Dampening Supplies

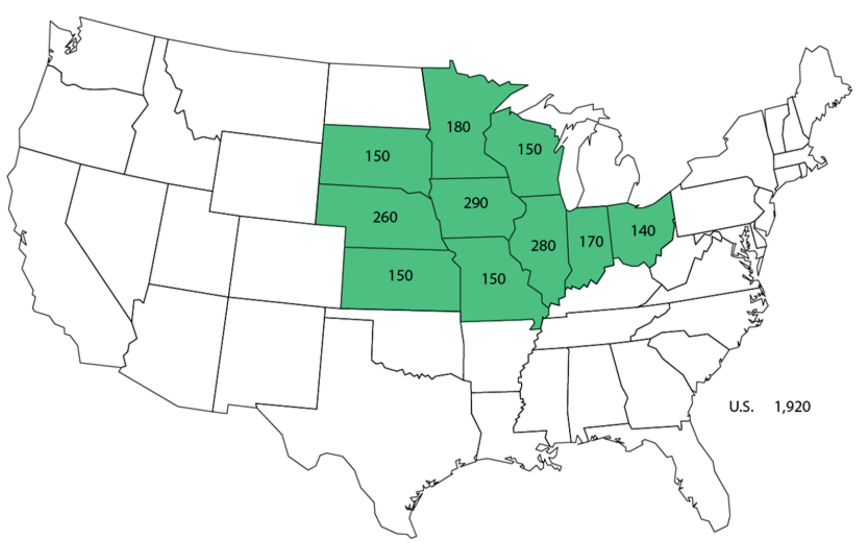
USDA's National Agricultural Statistics Service (NASS) *Crop Production* report provided the season's first survey-based yield forecast for corn of 169.5 bushels per acre, 1.2 bushels lower than last month's trend-based projection. Figures 2 and 3 illustrate the survey sample sizes for the Agricultural Yield Survey and Objective Yield Survey that provide the basis for forecasts in NASS's August *Crop Production* report. Corn production is lowered less than 1 percent from last month to 14,153 million bushels but is still the third highest ever after the 2016 and 2014 crops. Planted and harvested area is unchanged from last month at 90.9 and 83.5 million acres, respectively.

Figure 2
August 2017 agricultural yield survey: Number of samples



Source: USDA, National Agricultural Statistics Service.

Figure 3
2017 corn objective yield sample sizes



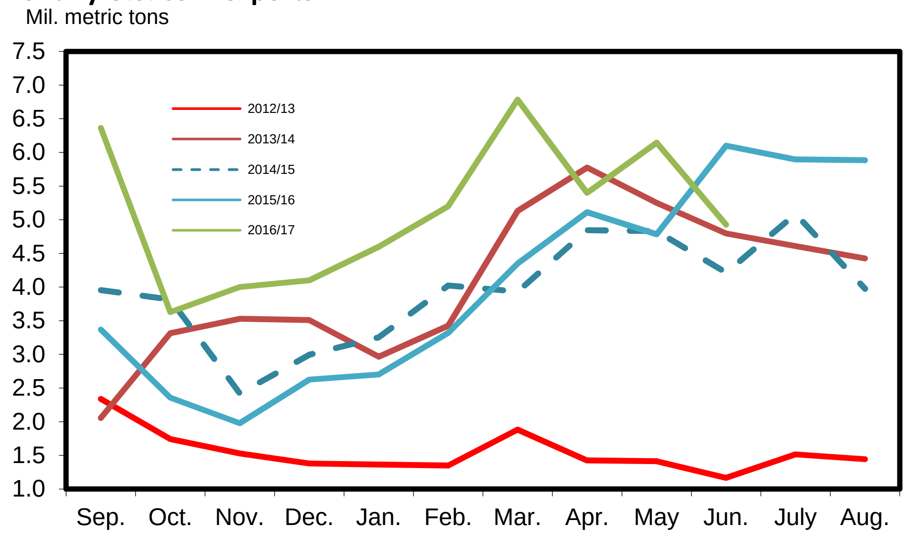
Source: USDA, National Agricultural Statistics Service.

Beginning stocks of 2,295 million bushels are unchanged from last month and the highest since 1988/89. Total supply is the second largest supply on record—16,573 million bushels.

Corn silking is about even with last year. In the 18 States surveyed by NASS, 93 percent of the crop had completed silking as of August 6, compared with 96 percent for the 2016 crop at this point. Average silking for 2012-16 was 94 percent at this point. In Iowa, the largest corn-producing State, silking was 95 percent, 3 percent lower than last year at this time and 2 percent behind the 5-year average.

Figure 4

Monthly U.S. corn exports



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

Corn Exports Slip in 2017/18

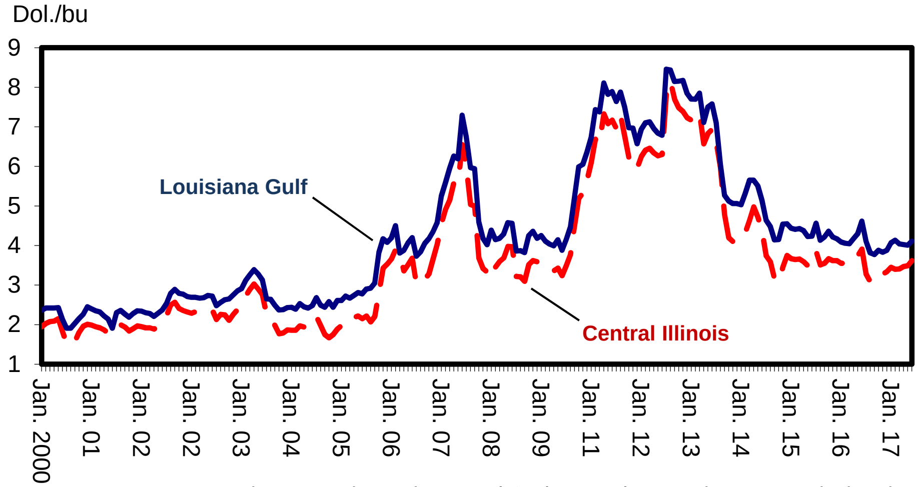
U.S. corn exports are lowered this month by 25 million bushels in September-August 2017/18 to 1,850 million. Competitor corn shipments continue to be forecast higher, dampening U.S. prospects. So far this marketing year, the major buyers of U.S. corn have been Mexico, Japan, and Pakistan. Brazil, Argentina, and the Ukraine continue to ship more than last year, increasing pressure on U.S. exports.

Corn Feed and Residual Use Down For 2017/18

Projected corn feed and residual use for 2017/18 is projected at 5,450 million bushels, 25 million below last month's estimate. Lower production led to the reduced forecast.

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.

Projected Corn Price Unchanged From Last Year

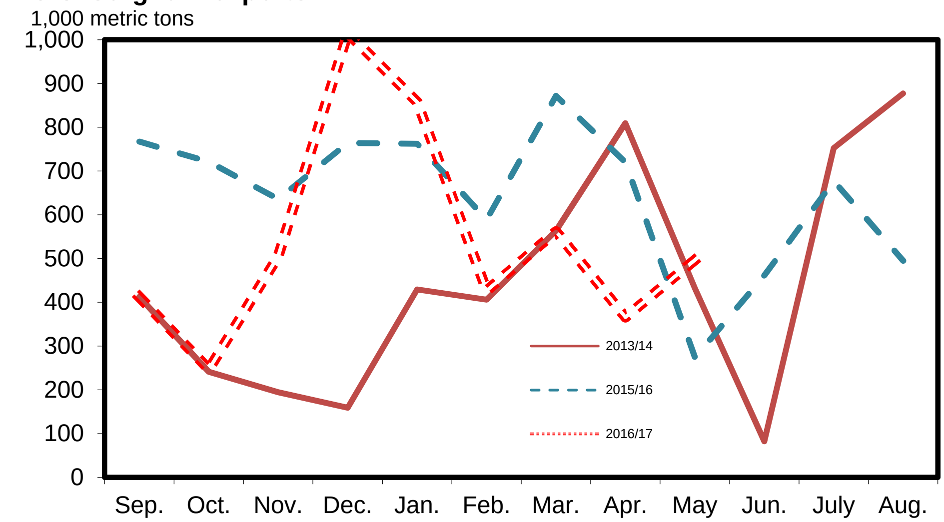
The projected range for the 2017/18 season-average corn price received by farmers is $2.90 to $3.70 per bushel leaving the midpoint unchanged from last month at $3.30 per bushel. For 2016/17, the range is narrowed 5 cents per bushel on both the high and low ends, leaving the midpoint unchanged at $3.35 per bushel.

Sorghum Yield Raised

The U.S. sorghum yield is raised 2.6 bushels from last month's 30-year median projection to 69.6 bushels per acre. Production is projected to increase 13.4 million bushels to 369.4 million, but the crop is 111 million bushels smaller than last year's on an acreage reduction of 0.9 million acres.

Figure 6

U.S. sorghum exports



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

Total 2017/18 sorghum use is projected 10 million bushels higher from last month to 370 million bushels. Exports are projected up 10 million bushels to 210 million on expected increased shipments to China resulting from demand in the feed deficit southern regions. Total use is raised to 370 million bushels this month.

Sorghum ending stocks for 2017/18 are raised 3.4 million bushels to a projected 52.3 million bushels as part of the production increase is passed through to carryout.

Barley Yield Reduced

Barley production is projected at 108 million bushels on a lower forecast yield to 72.1 bushels per acre, 1.4 bushels lower than last month. Relative to last month, yields were reduced for Idaho and Montana.
The projected range for the 2017/18 season-average barley price received by farmers is $4.90 to $5.90 per bushel for a midpoint of $5.40 per bushel, 15 cents below last month's projection.

Oats Production Edges Up for 2017/18

U.S. oats production is projected up 0.05 million bushels to 53.7 million from last month's forecast. Supply is raised 206.2 million bushels.

Oats Disappearance Unchanged

Total disappearance in 2017/18 is projected unchanged from last month's forecast at 172.0 million bushels. As a result, the increased production is passed through to ending stocks, which are forecast at 34.2 million bushels.

Higher-than-expected early season observed prices for 2017/18 boost the season-average oats price received by farmers to $2.35 to $2.85 per bushel for a midpoint of $2.60 per bushel, 20 cents above last month's projection.

Hay Harvested Acres Prospects Lowered for 2017

NASS's August 10 *Crop Production* report projects 2017/18 U.S. hay production at 132.7 million tons, 31.9 million below the previous forecast. Production for alfalfa hay was lowered 2.1 million tons, and other hay was lowered 6.1 million tons.

International Outlook

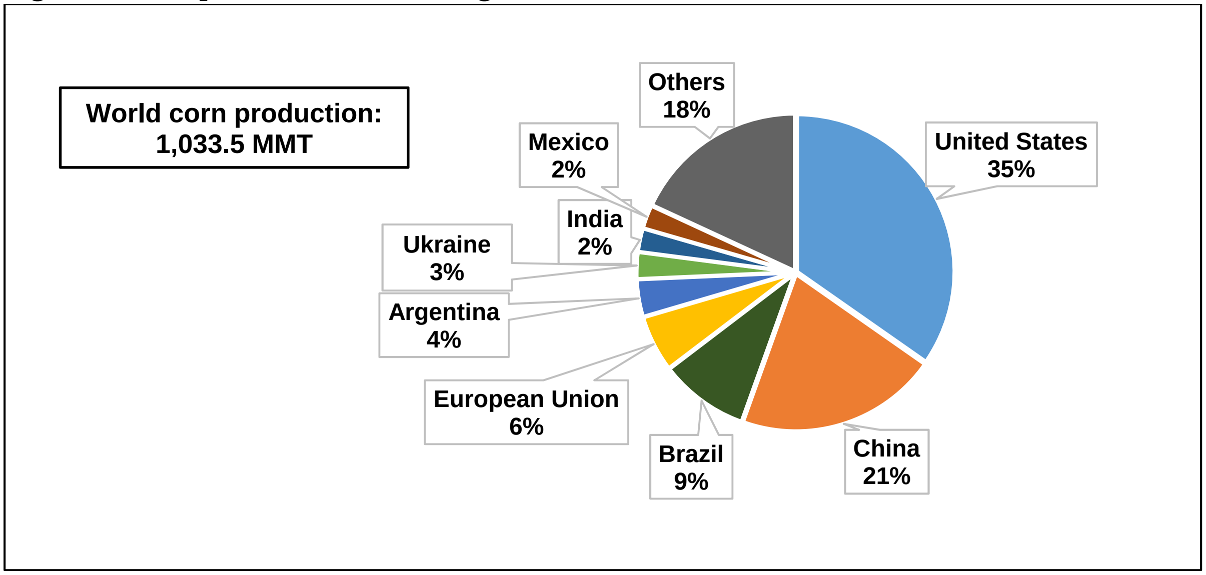
Foreign Coarse Grain Production Changes Fully Offsetting

World coarse grain production for 2017/18 is projected down 2.3 million tons this month to 1,314.2 million, with the United States accounting for virtually the whole decline. Foreign coarse grain production is nearly unchanged month-to-month at 941.1 million tons, with increases for Ukraine, Zimbabwe, and Russia offsetting reductions for the European Union (EU) and Canada. Foreign corn production is reduced 0.8 million tons to 674.0 million but is fully offset by increased output of barley, rye, and millet.

The beginning of August is an important time for gathering information about global grain production prospects. In the Northern Hemisphere, winter grain harvests are being tallied while summer crops like corn are going through critical reproductive growth stages. Some Southern Hemisphere crops are still being harvested, while others await planting. This month, for a number of key grain-producing countries, yields for the coarse grains are being revised down for the EU, Serbia, and Canada, while yields for Russia, Ukraine, and Kazakhstan are projected higher. Coarse grain production in the United States is projected down 2.3 million tons this month, a reduction of 29.6 million tons compared to last year (see section on domestic feed grains).

More than 80 percent of world corn is produced by 8 countries; the United States is by far the largest producer with a 35-percent share. China is the next largest producer, with a share of 21 percent (see figure 7).

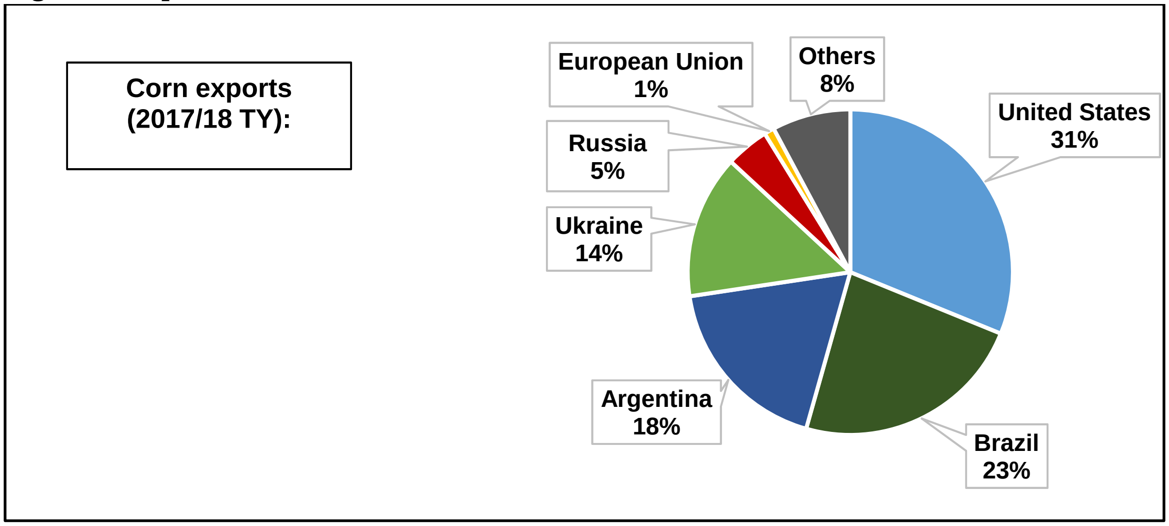
Figure 7: Corn production shares, August 2017/18



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

The United States is also the largest corn exporter, even though it is projected to export only 13 percent of its produced corn. However, some major exporters produce much less corn than the United States but export a much larger share of their corn output because of low domestic use. Brazil, Argentina, and Ukraine are projected to account for 9, 4, and 3 percent of world corn output in 2017/18, while their world corn export shares are much higher at 22, 18, and 14 percent, making them the largest corn exporters after the United States. These three countries are projected to collectively account for more than half (55 percent) of world corn exports (figure 8), supplanting the United States, which used to have more than a 50 percent share in world corn trade. For perspective, at the beginning of this century, Brazil, Argentina, and Ukraine together produced less than 10 percent of world corn, with a collective share in global corn trade of about 20 percent. In the last decade, supported by high world corn prices, combined area in Brazil, Argentina, and Ukraine has tripled.

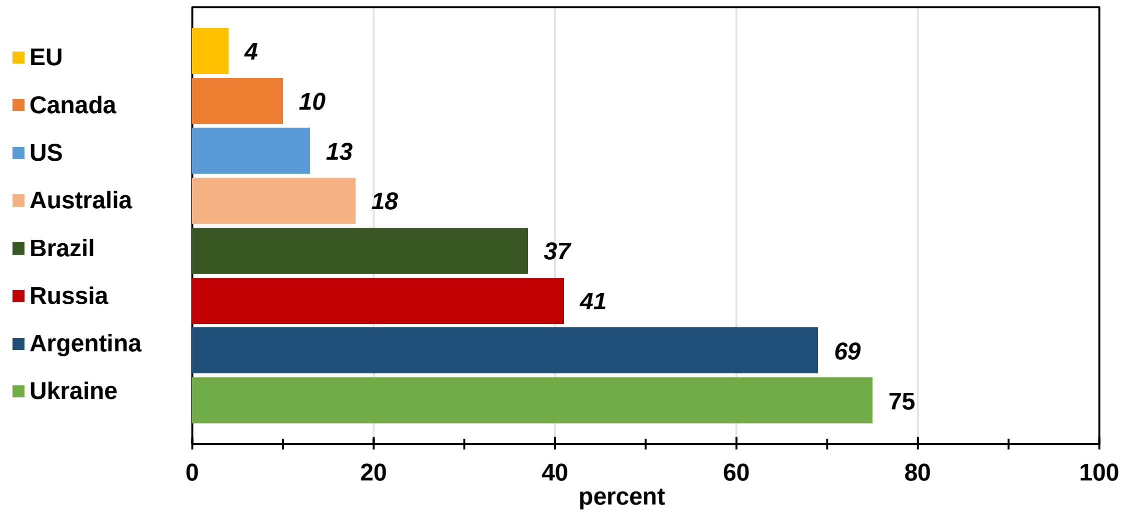
Figure 8: Exporters' shares in world corn trade



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

This point is reinforced by the fact that Ukraine, Argentina, and Brazil are expected to export 75, 69, and 37 percent of their corn output, while Russia's share of exports in corn production is also high at 41 percent (see figure 9).

Figure 9: Share of exports in major corn exporters' output



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

The United States is also the leader in sorghum production and exports, producing in the range of 15-20 percent of the world crop, with an average share in global sorghum exports of 70 percent.

The United States has a much smaller role in world production and trade of the other coarse grains. The EU and Russia produce more than half of world barley and oats and the vast bulk of rye; India, Nigeria, and Niger lead in milllet production; and the EU produces almost all mixed grains.

For more information about this month's output changes, see tables A1 (for global, foreign, and the U.S. changes), table A2 (for 2017/18 specific countries' changes), and table A3 (for 2016/17 country changes); see map A for a visual presentation of this month's changes in corn production. For a visual display of this month's output changes see map A.

Table A1 - World and U.S. coarse grain production at a glance (2016/17), August 2017

	Region or country	Production	Change from previous month[1]	YoY[2] change	Comments
		Million tons			
Coarse grain production (total)					
↑	World	1,314.2	-2.3	-49.7	
	Foreign	941.1	No change	-20.1	Fully offsetting changes are made for a number of countries and commodities. See table A2.
↑	United States	373.0	-2.3	-29.6	See section on U.S. domestic output.
World production of coarse grains by type of grain					
			CORN		
↑	World	1,033.5	-3.4	-37.0	
↓	Foreign	674.0	-0.8	-11.8	Changes are made for a number of countries. See table A2.
↑	United States	359.5	-2.6	-25.3	See section on U.S. domestic output.
			BARLEY		
↑	World	140.1	+1.5	-7.9	
↑	Foreign	137.0	+1.6	-6.6	Changes are made for a number of countries. See table A2.
↓	United States	3.0	-0.1	-1.3	See section on U.S. domestic output.
			SORGHUM		
↑	World	60.3	+0.3	-2.3	
	Foreign	50.9	No change	+0.5	Foreign production is virtually unchanged.
↑	United States	9.4	+0.3	-2.8	See section on U.S. domestic output.
			RYE		
↓	World	12.7	-0.5	+0.1	
↓	Foreign	12.4	-0.5	+0.2	Lower rye output is projected for Russia and the EU. See table A2.
	United States	0.3	No change	No change	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 foreign production by country at a glance, August 2017						
	Type of crop	Crop year	Production	Change in forecast[1]	YoY[2] change	Comments
			Million tons			
Coarse grain production by country and by type of grain (2017/18)						
EUROPEAN UNION (EU)[3]						
	Corn	*Oct-Sep*	**60.0**	**-1.6**	**-1.1**	Dry weather took an extra toll on **French, Romanian (west), Polish**, and several other countries' corn, and yields are projected lower this month.
	Barley	*Jul-Jun*	**58.6**	**-0.5**	**-1.2**	Harvest reports indicate lower-than-projected yields for **France, Spain,** and **Germany** and higher yields for **Romania**. Smaller changes are made for a number of EU countries.
	Rye	*Jul-Jun*	**7.7**	**-0.2**	**+0.2**	Harvest reports indicate lower-than-projected yields mainly in **Germany**, while fractional changes are made for a number of countries in the EU.
SERBIA						
	Corn	*Oct-Sep*	**6.6**	**-0.4**	**-1.0**	Corn suffered from severe temperatures and dryness at least as bad or worse than that for its EU neighbors.
CANADA[4]						
	Corn	*Sep-Aug*	**3.0**	**-0.5**	**+0.7**	Lower corn area is projected, as rainy weather and flooding complicated planting and hampered crop establishment in eastern Canada (Ontario and Quebec).
	Barley	*Aug-July*	**7.0**	**-0.6**	**-1.8**	Crop development in all three Prairie provinces has been hurt by heat and persistent dryness, and yields are projected 8 percent lower.
	Oats	*Aug-July*	**3.2**	**-0.1**	**+0.2**	A hardy crop, oats' development is still hurt by persistent dryness, and yields are projected 3 percent lower.
RUSSIA[5]						
	Corn	*Oct-Sep*	**16.5**	**+0.5**	**+1.2**	Planted corn area is reportedly higher and yield is left unchanged from last month. Vegetation health Index (VHI) suggests good to excellent conditions for corn in major producing areas of the South, North Caucasus, and Central districts.
	Barley	*Jul-Jun*	**18.5**	**+1.0**	**+1.0**	Barley yield is projected to reach a new record level; output is projected higher despite lower area reported by the Russian state statistical agency. Reported yields are at a new record, while the normalized difference vegetation index (NDVI) suggests excellent yields for crops in the main producing regions of Volga and Siberia.
	Rye	*Jul-Jun*	**2.5**	**-0.3**	**Unchanged**	Yield increase to near-record level is more than offset by lower area.
UKRAINE						
	Barley	*Jul-Jun*	**8.7**	**+1.5**	**+1.2**	Projected yields are increased based on improved weather conditions in July and harvest reports.
ZIMBABWE						
	Corn	*Apr-Mar*	**2.2**	**+1.2**	**+1.6**	Exceptional rainfall boosted both corn area and yields, with yields reaching 1.1 tons per hectare for the first time since a presidential decree permitting the expropriation of virtually all White-owned farms in Zimbabwe without compensation. Corn output is projected to more than double.

[1]Change from previous month. Smaller changes for coarse grain output are made for several countries, see map A for changes in ***corn***.

[2] YoY: year over year changes. [3] For 2016/17 EU production of corn, barley, oats, and rye is slightly revised. [4] A fractional change is made for Canadian mixed grains. [5] Multiple smaller changes are also made for every grain in Russia based on newly reported area.

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

Brazil corn production for the previous crop year 2016/17 is projected up 1.5 million tons to 98.5 million. This Southern Hemisphere country is currently in the midst of its second-crop corn harvest, and harvest reports suggest both higher corn area and yield. The Brazilian Ministry of Agriculture, CONAB, published survey-based production estimates that confirmed larger harvested area for the 2016/17 second-crop corn and further increased record yields.

See table A3 for more information on this month's coarse grain output changes for the previous crop year 2016/17.

Table A3 - Coarse grain foreign production by country at a glance, August 2017

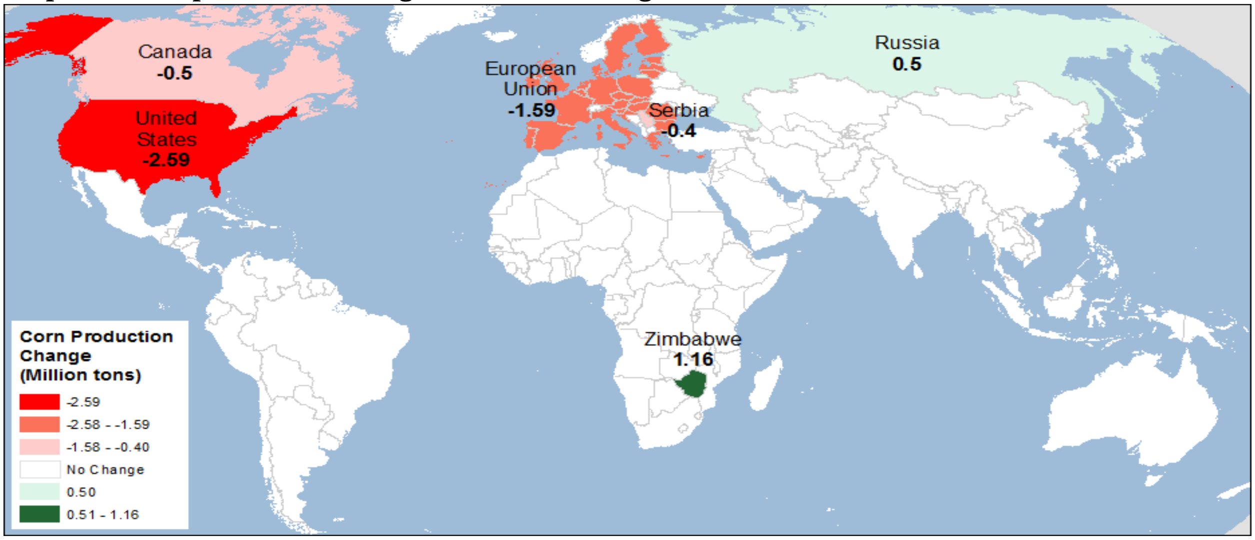
	Type of crop	Crop year	Production	Change in forecast[1]	YoY[2] change	Comments
			Million tons			
Coarse grain production by country and by type of grain (2016/17)						
			BRAZIL			
	Corn	*Mar-Feb*	**98.5**	**+1.5**	**+31.5**	The increase is based on harvest reports and moves production to a new record high, almost 50 percent larger than the previous (2015/16) unfortunate crop. Both corn area and yields are projected higher. Harvesting of the 2016/17 crop is on the way, with virtually all first-crop corn and about 70 percent of second-crop corn completed.
			SOUTH AFRICA			
	Corn	*May-Apr*	**16.7**	**+0.3**	**+8.5**	The increase moves the production record further, as the South African Crop Estimates Committee (CEC) recently updated the production forecast.
			EUROPEAN UNION (EU)[3]			
	Corn	*Oct-Sep*	**61.1**	**+0.3**	**+2.4**	Revisions are made for **Germany** and **Croatia**, as well as for several other countries.
	Barley	*Jul-Jun*	**59.8**	**-0.2**	**-3.3**	Revisions are made for **Ireland, Germany, France** and a number of other EU countries.
			EQUADOR			
	Corn	*May-Apr*	**1.4**	**+0.4**	**-0.4**	A series revision based on the available data from the Ministry of Agriculture.
			MALAWI			
	Corn	*May-Apr*	**2.4**	**-0.8**	**-0.4**	A series revision for 2012-16 based on the Government reports.

[1]Change from previous month. Smaller changes for coarse grain output are made for several countries.

[2] YoY: year over year changes.

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

Map A – Corn production changes for 2017/18, August 2017



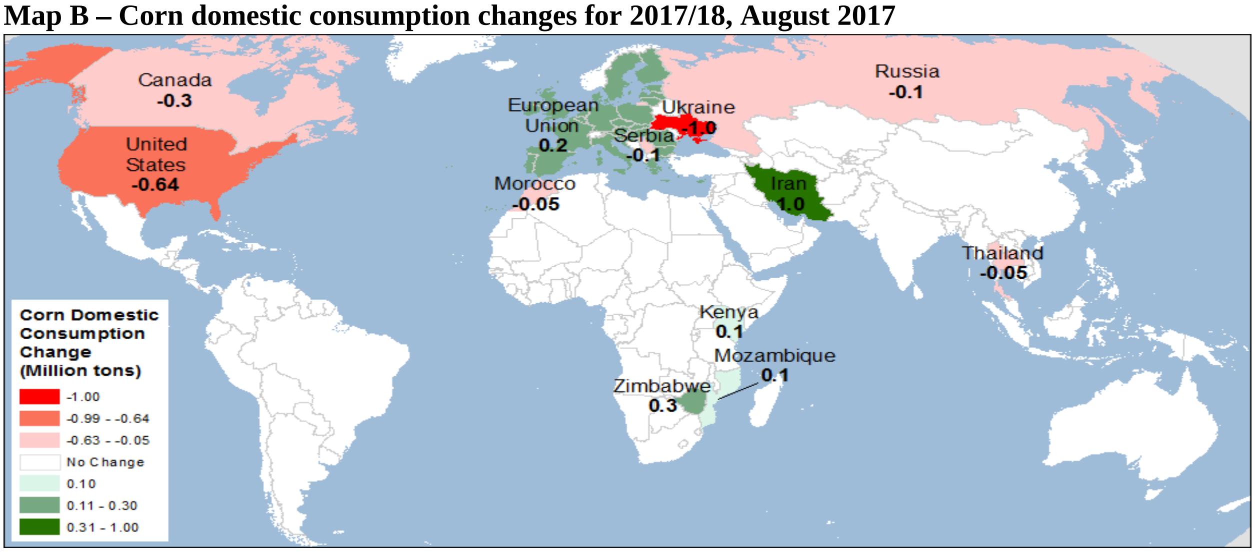
Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution online database.

Projected World Coarse Grain Use Virtually Unchanged

Global coarse grain use in 2017/18 is projected down slightly this month but still rounds to 1,349.3 million tons. However, this stability in world consumption hides numerous offsetting changes. The largest change to 2017/18 feed and residual disappearance is for Iran, up 1.0 million tons for corn due to expansion of its poultry industry supported by growing corn imports and robust increases in soybean meal equivalent disappearance. Russian barley feed and residual is up 0.7 million tons on higher production, while Ukrainian corn feeding is cut 1.0 million tons based on a combination of reportedly stagnating meat production and on revisions made to historical stock estimates. Canadian corn and barley feed use are trimmed 0.3 and 0.4 million tons because of lower projected output. Smaller changes are made for a number of countries.

For additional information on this month's changes in corn domestic consumption, see map B.

Map B – Corn domestic consumption changes for 2017/18, August 2017



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

Foreign Corn Trade Increased, U.S. Export Prospects Declining

Foreign corn trade for the international 2017/18 trade year (October-September) is projected up 1.9 million tons, while global trade is up 1.4 million, pushing the record further to 152.2 million. A 1.0-million-ton increase is projected in EU corn imports. Demand for corn in two major EU feed-importing countries – Spain and Italy – is expected to be met by increases in grain imports from outside the EU, as French and Romanian corn output is expected to be reduced (see above). Projected expansion of the Iranian poultry industry and its demand for feed is expected to boost Iranian corn imports by 1.0 million tons to reach a new mark of 10.0 million tons.

Ukraine and Russia are expected to share the opportunity offered by the projected increase in EU and Iranian corn imports; for both countries, corn exports are projected up this month, by 1.0 million tons for Ukraine and by 0.5 million tons for Russia. Ukrainian corn exports are also projected higher for the current 2016/17 trade year, up 1.0 million tons to 21.5 million, making the country for the first time the third largest corn exporter, slightly outpacing Brazil.

Corn export prospects for Brazil are up sharply this month by 1.5 million tons to 35 million, as increased 2016/17 second-crop corn will mostly be shipped early in trade year 2017/18. Although exports in the months of May and June are usually fairly low in Brazil, corn exports this year were at an all-time high during these 2 months and were followed by record-high shipments during July; reported commitments are at a level unheard of.

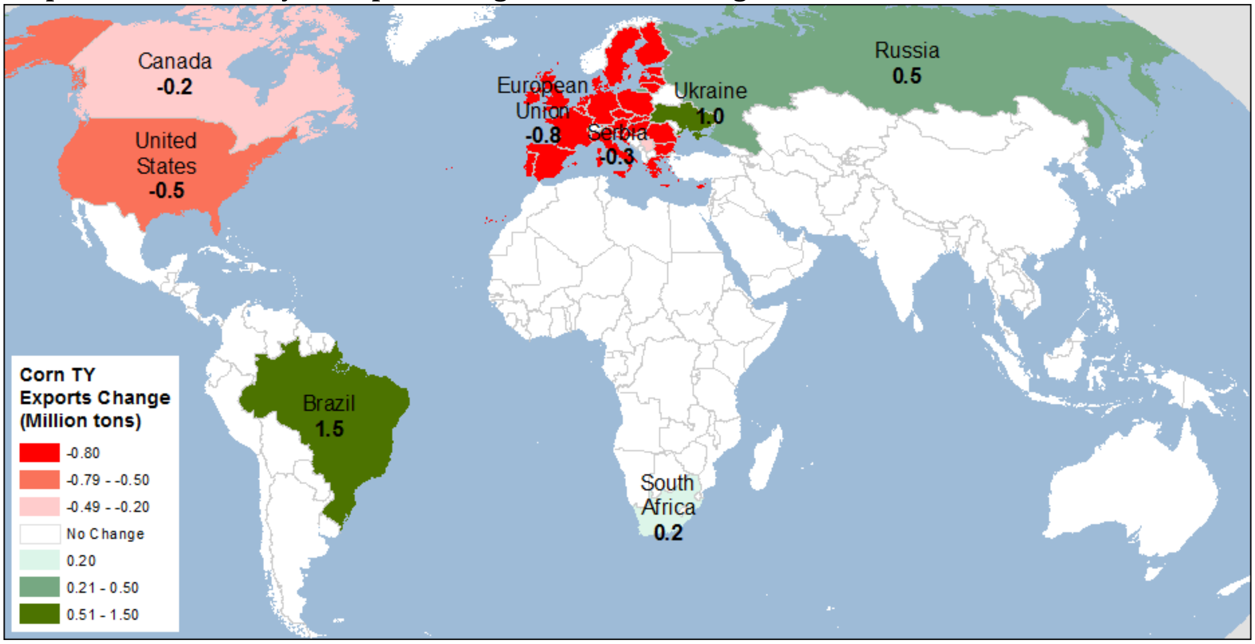
However, for the current 2016/17 trade year, Brazilian corn exports are reduced 1.0 million tons to 21.0 million. The international trade year ends in September, and the country has not accumulated sufficient corn exports to fulfil the forecast, even with record-high exports in August-September. Brazilian 2016/17 local marketing year (March-February) exports are projected 1.0 million tons higher to 35.0 million as the country will have ample time to ship out abundant corn supplies, especially given the expansion of Brazilian port capacities.

For the current 2016/17 trade year, global corn trade is projected slightly higher at 144.7 million tons, with a 1.0-million-ton increase in Ukrainian exports (see above, higher pace of sales) offset by the already mentioned 1.0-million-ton reduction for Brazil (see above). Small changes are made for several countries (see maps D1 for export changes and D2 for import changes).

U.S. 2017/18 corn export prospects are reduced 0.5 million tons to 47.0 million (down 25 million bushels to 1.85 billion for the September-August local marketing year). While U.S. corn supplies are still ample, export prices are significantly lower for Argentina, Brazil, and Ukraine. At the end of July 2015, U.S. outstanding export sales for the next marketing year were only 4.1 million tons, down sharply from 7.7 million a year ago. U.S. 2016/17 corn exports are forecast unchanged this month at 55.0 million tons.

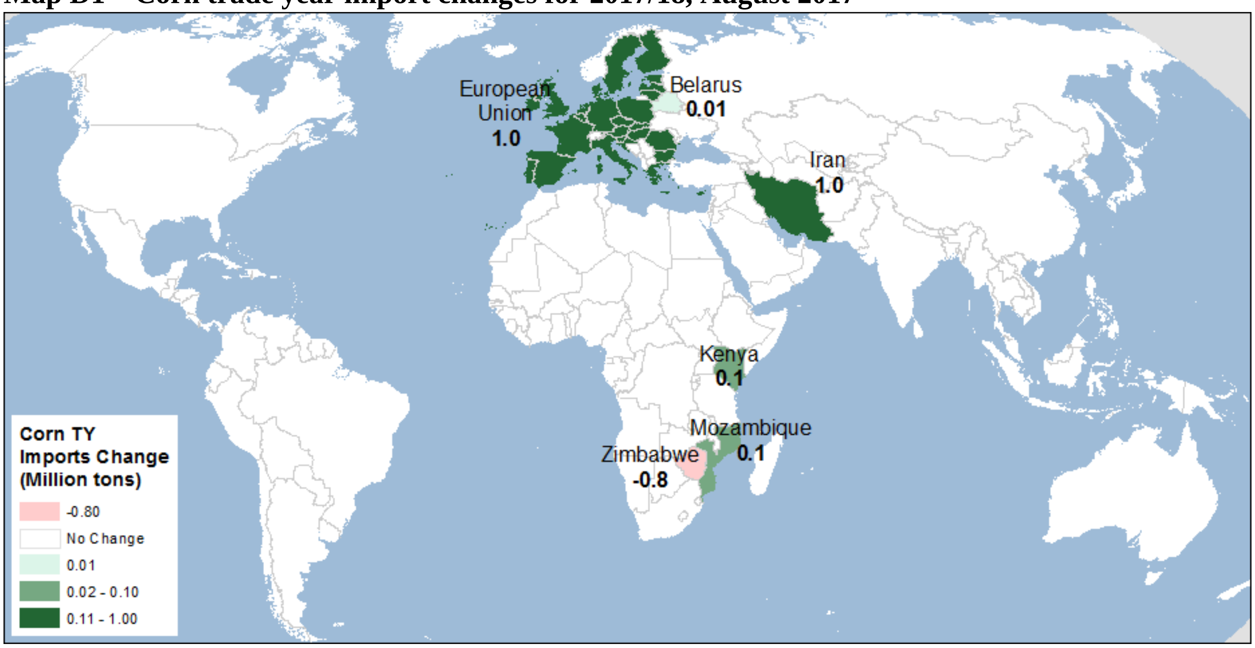
For the 2016/17 local marketing year, the export forecast of 2.225 billion bushels is unchanged from last month; as of August 3, total export commitments (outstanding sales plus shipments) of 2.221 billion are just fractionally below the current export projection. An assumption of sharply declining U.S. exports during August and September, as competing corn producers in the Southern Hemisphere enter the market and expand their exports, was factored into the corn export projection 9 months ago.

Map D1 – Corn trade year export changes for 2017/18, August 2017



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

Map D1 – Corn trade year import changes for 2017/18, August 2017



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

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Data

Feed Grains Database 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.

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Table 1--Feed grains: U.S. quarterly supply and disappearance (million bushels), 8/14/2017

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	3.30-3.40
	2017/18	Mkt yr	2,370	14,153	50	16,573	7,000	5,450	1,850	14,300	2,273	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	2.70-2.80
	2017/18	Mkt yr	52.89	369.41		422.30	100.00	60.00	210.00	370.00	52.30	2.50-3.30

Table 1--Feed grains: U.S. quarterly supply and disappearance, cont. (million bushels), 8/14/2017

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	140	15	263	153	35	5	193	70	4.90-5.90
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	2.35-2.85

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: 8/14/2017

Table 2--Feed and residual use of wheat and coarse grains, 8/14/2017

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	-1.7	23.3		
	MY Sep-Aug	137.8	3.3	1.0	1.4	143.4	3.0	146.4	95.9	1.5
2017/18	MY Sep-Aug	138.4	1.5	1.1	1.6	142.6	5.7	148.3	97.6	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, 8/14/2017

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	3.51	4.56	4.11	4.00			
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	2.05			4.67	2.82	2.61	3.17
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.

Data run: 8/11/2017

Table 4--Selected feed and feed byproduct prices (dollars per ton), 8/14/2017

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	466.13
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	258.75	281.00	284.00	179.38	74.40	107.13	68.38	571.60	568.13	475.75
Jul	375.48	371.49	326.04	299.38	280.00	200.84	91.25	95.01	71.35	560.00	573.13	467.88
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	

	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	135.00
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	248.13	157.50	170.50	105.25	60.27	57.94	60.39	142.00	152.00
Jul	333.75	381.67	276.25	153.50	149.38	106.25	77.96	61.48	67.10	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), 8/14/2017

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
2015/16	Q1 Sep-Nov	110.81	72.33	62.30	1,300.20	34.89	50.62	0.00	1,631.15
	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	1,353.63	36.72	54.45	27.20	1,747.49
	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: 8/11/2017

Table 6--Wholesale corn milling product and byproduct prices, 8/14/2017

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	26.75
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	16.89	18.70	18.56	15.43	15.04	39.00	39.00	26.75	28.25
Aug	16.64	16.51	18.31	18.18	13.63		39.00	39.00	26.75	28.25
Mkt year 2/	17.55	16.91	19.23	18.55	14.68		38.33	39.00	25.58	27.75

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: 8/11/2017

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

Import and country/region		---------- 2015/16 ----------		---------- 2016/17 ----------		2017/18
		Mkt year	Jun	Mkt year	Jun	Jun
Oats	Canada	1,378	108	1,508	100	81
	Sweden	62		27		
	Finland	34		21		
	All other countries	0	0	0	0	0
	Total 2/	1,475	108	1,556	100	82
Malting barley	Canada	285	17	103	10	9
	All other countries	0		17	0	0
	Total 2/	285	17	119	10	9
Other barley 3/	Canada	116	14	89	6	11
	All other countries	4	1	2	0	0
	Total 2/	119	15	90	6	11

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: 8/11/2017

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

		---------- 2014/15 ----------		---------- 2015/16 ----------		2016/17
Export and country/region		Mkt year	Sep-Jun	Mkt year	Sep-Jun	Sep-Jun
Corn	Japan	12,003	9,631	10,439	7,731	11,471
	Mexico	11,333	9,038	13,337	11,005	11,395
	Colombia	4,371	3,814	4,548	4,019	3,981
	South Korea	3,934	3,061	2,964	1,677	5,331
	Peru	2,555	2,204	2,383	1,909	2,469
	China (Taiwan)	1,839	1,507	2,038	1,355	2,739
	Canada	1,490	1,252	1,014	827	588
	Egypt	1,235	869	852	520	277
	Saudi Arabia	1,185	939	1,389	1,049	2,067
	Guatemala	852	645	906	738	803
	Costa Rica	774	649	552	416	665
	China (Mainland)	747	622	321	262	364
	Venezuela	710	485	1,155	822	325
	Dominican Republic	607	523	253	197	762
	El Salvador	538	423	631	530	491
	Panama	450	349	392	303	423
	Honduras	428	335	550	452	395
	European Union-27	361	151	413	226	648
	Morocco	298	298	450	272	871
	Jamaica	282	230	283	225	223
	Algeria	239	239	663	346	91
	Nicaragua	191	166	258	190	266
	Iran	138	138	0.095	0.095	0.031
	New Zealand, No Islands	106	78	55	55	12
	Trinidad And Tobago	89	63	92	70	61
	All other countries	666	605	2,349	1,497	3,285
	Total 2/	47,421	38,313	48,288	36,690	50,004
Sorghum	China (Mainland)	8,328	6,788	7,034	6,079	3,941
	Sub-Saharan Africa	486	432	593	480	393
	Japan	83	83	79	68	225
	Mexico	21	19	625	511	537
	All other countries	17	14	296	268	24
	Total 2/	8,935	7,336	8,626	7,406	5,120
		---------- 2015/16 ----------		---------- 2016/17 ----------		2017/18
		Mkt year	Jun	Mkt year	Jun	Jun
Barley	Mexico	142	16	2		
	Canada	52	9	63	7	8
	Morocco	14				
	China (Taiwan)	7	1	4	0.735	0.361
	All other countries	21	4	26	1	5
	Total 2/	235	31	95	10	13

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: 8/11/2017