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# Feed Outlook

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## U.S. Corn Export Prospects Cut, Ethanol Use Increased

Feed Chart Gallery  
will be updated on  
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The next release is  
January 14, 2016

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Approved by the  
World Agricultural  
Outlook Board.

U.S. 2015/16 corn exports are projected down 50 million bushels to 1,750 million. The very slow pace of shipments in October and November support a reduced forecast even though U.S. export quotes have become more competitive in recent weeks and export sales are expected to increase. Brazil has been exporting corn at a record pace this fall. Projected 2015/16 world coarse grain production, use, and ending stocks are reduced slightly this month, but forecast global ending stocks are still the largest in 28 years.

U.S. domestic demand for corn is relatively robust, with an increase in projected corn use for ethanol of 25 million bushels due to recent production trends. While the U.S. corn farm price forecast is unchanged this month with a midpoint of \$3.65 per bushel, the sorghum midpoint price forecast is down 10 cents to \$3.50 per bushel. This reflects interior cash quotes that have a significant discount for sorghum relative to corn where most of the sorghum is grown.

### Recent *Feed Outlook* Special Articles

“Boutique Brews, Barley, and the Balance Sheet,” pdf pages 18-23 of the January 2015 *Feed Outlook* report (<http://www.ers.usda.gov/publications/fds-feed-outlook/fds-15a.aspx>).

“World Corn Use Expands Despite High Prices in 2012/13,” pdf pages 17-22 of the June 2013 *Feed Outlook* report (<http://www.ers.usda.gov/publications/fds-feed-outlook/fds-13f.aspx>).

“Animal Unit Calculations—First Projections for the 2013/14 Crop Year,” pdf pages 25-30 of the May 2013 *Feed Outlook* report (<http://www.ers.usda.gov/publications/fds-feed-outlook/fds-13e.aspx>).

## Domestic Outlook

### ***Projected Domestic Feed Grain Use Increased, Exports Reduced***

This month's U.S. feed grain supply forecast is nearly unchanged. Imports for 2015/16 are increased just 5,000 metric tons, with higher sorghum and lower barley being forecast. Beginning stocks and production are unchanged. Total supplies are raised to 417.6 million metric tons, 3.1 million higher than in 2014/15. Projected feed grain use is forecast at 367.8 million tons, down 0.7 million this month due to reduced exports partly offset by higher corn use in ethanol production. The feed and residual forecast is unchanged at 140.7 million tons. Projected total disappearance is 0.2 million tons greater than that in 2014/15. At 49.8 million tons, forecast ending stocks are raised 0.7 million tons this month. Compared with 2014/15, ending stocks are forecast up 2.9 million tons.

USDA's National Agriculture Statistics Service will release final estimates for 2015 U.S. feed grain production on January 12, 2016, along with estimates of the December 1, 2015, grain stocks. Those supply and use updates will be reflected in next month's *Feed Outlook*.

### ***Feed Use***

U.S. feed and residual use during the 2015/16 September-August marketing year for the four feed grains plus wheat is unchanged from last month's projection at 145.8 million metric tons, 2.1 million tons higher than the 2014/15 level of 143.7 million. Corn is projected to account for 92 percent of total feeding in 2015/16, down from the 2014/15 estimate of 94 percent. In 2015/16, feed and residual use of sorghum, barley, and wheat are all expected to increase.

The 2015/16 projected index of grain-consuming animal units (GCAUs) is 94.6, down from 95.1 last month and above the 93.2 for 2014/15. Feed grain used per GCAU is 1.54 tons, 0.01 higher than last month's figure. In the index components, GCAUs decreased slightly for cattle on feed.

### ***Corn Use for Ethanol Up, Exports Down***

U.S. corn supplies for 2015/16 are unchanged from last month's projection of 15,415 million bushels. Projected 2015/16 corn use is lowered as a 50-million-bushel decline in the export forecast is partially offset by a 25-million increase in corn used for ethanol. Ending stocks are projected at 1,785 million bushels, 25 million over last month's projection and 54 million higher than in 2014/15.

Projected corn food, seed, and industrial (FSI) use is raised 25 million bushels above last month's projection to 6,580 million based on increased prospects for corn use for ethanol. Weekly production in November and Energy Information Agency (EIA) forecasts suggest higher-than-expected ethanol production. For the 2015/16 corn September-August marketing year, EIA forecast U.S. gasoline consumption higher in its December *Short-term Energy Outlook*, supporting a higher outlook for ethanol and corn use. Other corn FSI use categories are unchanged.

U.S. corn export prospects for 2015/16 are cut 50 million bushels to 1,750 million due to the very sluggish pace of exports in recent weeks. The reduced outlook for

export demand more than offsets higher expected domestic use, resulting in the raised projection for 2015/16 carryout stocks.

### ***Corn Price Steady, Range Narrowed***

Farm corn price expectations for 2015/16 are unchanged from last month as both the high and low ends of the range remain at \$3.35 to \$3.95 per bushel, respectively, for a midpoint of \$3.65 per bushel. The 2014/15 season-average farm price was \$3.70 per bushel.

### ***Sorghum Imports Slightly Higher, Price Lower This Month***

U.S. Census data through October indicate that U.S. sorghum imports for the 2015/16 marketing year have reached 1.8 million bushels, 1.1 million greater than last month. The gain in imports is due to a shipment of just over 1 million bushels from Argentina to the U.S. southeast for feed use. With Argentine sorghum selling at a discount to U.S. feed grain supplies, and relatively low ocean freight rates, opportunities have arisen to ship grain from Argentina rather than by rail from the eastern Corn Belt. Last summer's excessive rains also reduced U.S. yields and trimmed available supplies of corn in some of the areas from which southeastern feeders routinely source rail-origin corn. With no changes in sorghum use from last month's projection, the small increase in supply translates to a 1.1-million-bushel increase in projected ending stocks.

Reflecting discounts for sorghum in Kansas, increased supplies, and uncertainty in export markets, the sorghum farm price for 2015/16 is projected down \$0.10 on both the high and low end of the range to \$3.20-\$3.80 per bushel, with a midpoint of \$3.50 per bushel. The 2014/15 season-average price is \$4.03 per bushel.

### ***Barley Stocks Edge Up on Reduced Exports, Oats Steady***

Projected 2015/16 barley supplies are reduced slightly on an incremental reduction in imports. The 1-million-bushel cut in imports to 17 million is based on the slow pace of Canadian barley shipments to the United States. However, the pace of U.S. barley exports is also sluggish, supporting a 2-million-bushel cut in projected exports to 10 million bushels. With exports cut more than imports, ending stocks are raised 1 million bushels to 97 million. Otherwise, supply and use categories for barley are unchanged from last month. For the 2015/16 marketing year, the season-average farm price range for barley is narrowed \$0.05 on each end to \$4.90 and \$5.50.

There are no changes this month in the oats balance sheet or farm price forecast.

## International Outlook

### *U.S. Corn Export Prospects Reduced*

Projected 2015/16 trade year U.S. corn exports are reduced 1.5 million tons to 44.5 million (down 50 million bushels to 1,750 million for the September-August local marketing year). Census corn shipments for October reached only 2.4 million tons, down almost 40 percent from a year earlier. Inspections for November were 1.7 million tons, down about 30 percent from a year ago, and close to the low level of 2012 when exports were constrained by tight supplies caused by severe drought. This year, U.S. corn supplies are ample, but during most of September, October, and November 2015, U.S. corn export prices were not competitive with prices in Brazil or Ukraine. Recently, U.S. corn export prices have become more competitive, and sales have increased; but as of early December, outstanding export sales reached 10.9 million tons, down about a quarter from the previous year. The reduction in U.S. projected exports for 2015/16 is based on the slow pace of sales and recent months' shipments. In coming months, U.S. corn sales are expected to increase, and the shipment pace for most of the rest of the year is expected to be similar to last year's pace.

Brazil's corn exports during October and November 2015 have been exceptionally strong, according to official government statistics, reaching 5.5 million tons in October and 4.8 million in November. Port loading data from Brazil's main ports indicate the exports were even higher, but rain delays and other factors may be causing the official data to lag some. The strong exports from Brazil's large 2014/15 second-crop corn is the main cause for slow U.S. exports during the early months of 2015/16. In coming months, Brazil's corn sales and exports are expected to tail off, and most of Brazil's export capacity is expected to turn to soybeans, especially from March to June 2016. Brazil's 2015/16 October-September trade year corn exports are raised 1.0 million tons this month to 34.0 million.

Canada's 2015/16 corn export prospects are raised 0.5 million tons to 1.0 million based on a significantly larger crop, but import prospects are cut 0.5 million tons to 1.0 million. South Africa, with reduced production prospects, faces strong demand for white corn from neighboring countries, while tight internal supplies encourage imports of mostly yellow corn to use as feed. This month, South Africa's 2015/16 trade year exports are raised 0.2 million tons to 1.0 million, while imports are increased 0.3 million tons to 0.5 million. India's corn export prospects are reduced 0.5 million to 1.0 million because of a smaller crop and high internal prices.

Taiwan's 2015/16 corn imports and feed use are each reduced 0.2 million tons, reflecting lower imports and feed use estimated for 2014/15. Malaysia's 2015/16 corn import and feed use prospects are trimmed 0.1 million tons, also due to reduced imports estimated for the previous year. However, 2015/16 corn imports for Chile are raised 0.2 million tons as increased corn imports for trade year 2014/15 indicate expanding feed use and oats supplies are tighter than previously thought. Lebanon's and Venezuela's 2015/16 corn imports are raised 0.1 million tons each, reflecting increased imports the previous year.

The changes to projected 2015/16 corn exports and imports are mostly offsetting, but reductions are larger, reducing world corn trade 0.3 million tons to 127.7

million, nearly the same as estimated corn trade for 2014/15 but down 2 percent from the record trade estimated for 2013/14.

### ***U.S. Sorghum Exports Increased for the Trade Year***

U.S. 2015/16 October-September trade year sorghum exports are projected up 0.1 million tons to 7.6 million. The September-August local marketing year export remains unchanged at 325 million bushels. This implies a change in expected exports for September 2016. Both last month's and this month's projections imply sorghum exports in September 2016 lower than in September 2015, but this month, the expected decline is smaller. Census export data indicate September 2015 sorghum exports reached 1.1 million tons, and October exports slowed modestly to 0.8 million, slightly above a year earlier. Grain Inspections for November 2015 reached nearly 1.0 million tons, up nearly 40 percent from a year ago. However, as of December 3, 2015, outstanding sorghum sales were 1.8 million tons, down from 3.1 million the year before. Total commitments are down about 6 percent from a year ago, compared to a projected 8-percent decline in sorghum exports. The perceived risk of problems getting sorghum through customs in China is expected to limit the pace of future sales and shipments.

Projected 2015/16 sorghum exports for Argentina and Australia are modified this month, reflecting changed production prospects. Argentina's exports are cut 0.3 million tons to 1.2 million, while Australia is increased 0.1 million to 1.0 million. World sorghum trade is projected down 0.1 million tons this month to 10.3 million.

Global barley, oats, and rye trade projected for 2015/16 is essentially unchanged this month, with small, offsetting adjustments to projected barley imports.

### ***Projected Global Coarse Grain Production Edged Lower***

World 2015/16 coarse grain production is forecast down 1.0 million tons to 1,268.6 million, due to reduced corn prospects. Reductions for sorghum, oats, rye, and mixed grains production are offset by increases forecast for millet and barley.

Canada's 2015/16 coarse grain production is boosted 2.0 million tons to 25.7 million based on Statistics Canada's preliminary final estimates. Corn production is raised 1.3 million tons to 13.6 million based on record yields and a small increase in harvested area. Growing conditions for corn in Ontario were characterized by mostly mild summer temperatures and ample rainfall. Record corn yields are also reported by USDA's National Agricultural Statistics Service in neighboring Michigan. Canada's barley production is increased 0.6 million tons to 8.2 million due to increased yields as dryness and heat across the prairies were not as damaging as expected. Mixed grain and oats production are increased fractionally, but rye production is reduced slightly.

India's 2015/16 coarse grain production is reduced 1.0 million tons to 39.1 million. Corn production prospects are cut 1.5 million tons to 21.0 million based on reduced area and lower expected yields. Most corn is planted in the Kharif season, with dryness hurting reported yields across Uttar Pradesh and Bihar. For the smaller Rabi season, corn planting progress has lagged expectations. However, Kharif-planted millet area is reported up slightly, boosting estimated production 0.5 million tons to 11.0 million.

Prospects for South Africa's 2015/16 corn crop are trimmed 0.8 million tons to 12.0 million. Corn planting is ongoing but severely delayed by extensive dryness. Delays in the eastern, higher yielding regions are especially significant. Late-planted corn has reduced yield prospects.

Argentina's 2015/16 sorghum production prospects are cut 0.6 million tons to 3.9 million due to reduced planted area. Rain has been heavy during planting across most sorghum regions, making it hard to get fieldwork done but also providing enough soil moisture to support less drought-resistant crops.

Chile's 2015/16 coarse grain production is reduced 0.4 million tons to 1.8 million, mostly due to oats, barley, and rye area reported lower by the Chilean Ministry of Agriculture. Oats area is revised lower for several years. Australia's coarse grain production is projected down 0.1 million tons to 12.7 million, with a reduction in reported barley yields partly offset by favorable prospects for sorghum. Uruguay's barley production prospects are reduced based on lower area. EU coarse grain production prospects are trimmed slightly, with small reductions in reported oats and rye mostly offset by increases for barley and sorghum.

### ***Small Increase in 2015/16 Beginning Stocks***

There were numerous, mostly small changes to forecast 2015/16 beginning coarse grain stocks based on revised estimates for 2014/15 supply and demand, mostly due to finalized or nearly finalized trade data. Global 2015/16 coarse grain beginning stocks are up 0.1 million tons this month to 243.3 million. The largest change is a drop in forecast beginning stocks for Brazil, down 0.9 million tons to 10.9 million based on increased exports of 2014/15 second-crop corn. More than offsetting Brazil's decline are increased stocks for Venezuela, up 0.2 million tons; the EU, up 0.2 million; South Africa, up 0.1 million; Canada, up 0.1 million; and Colombia, El Salvador, Mexico, Tunisia, the Dominican Republic, Ghana, Indonesia, Peru, Chile, and other countries, up by smaller amounts. Small reductions in 2015/16 coarse grains beginning stocks this month are for Argentina, Taiwan, Malaysia, and other countries.

World 2015/16 coarse grain supplies are down 0.9 million tons this month to 1,511.8 million as reduced production prospects more than offset the small increase in beginning stocks. The forecast 2015/16 supplies are up slightly (0.3 percent) from estimated supplies the previous year but are about 5 percent higher than in 2013/14.

### ***Global Coarse Grain Use Prospects Trimmed***

World coarse grain use in 2015/16 is projected down 0.6 million tons this month to 1,264.9 million, nearly the same as estimated 2014/15 use of 1,264.6 million. Coarse grain prices have been at relatively low levels compared to recent years, and the projected use is record large.

Global 2015/16 coarse grain feed use is projected up 0.5 million tons this month to 760.4 million, and world food, seed, and industrial (FSI) use is forecast up 1.0 million tons to 505.8 million. However, these increases are more than offset by the trade adjustment to use

(see special article: *World Corn Use Expands Despite High Prices in 2012/13*, June 2013 <http://www.ers.usda.gov/media/1225040/fds13fsa.pdf>). Normally the sum of known exports is larger than imports, boosting disappearance. However, in 2015/16 large exports of 2014/15 corn from the Southern Hemisphere, especially Brazil, are showing up as imports during 2015/16. This month, local marketing year 2015/16 coarse grain exports are reduced 2.1 million tons, while imports are increased 0.1 million. In the 2015/16 local marketing year, imports are larger than exports, reducing 2015/16 apparent disappearance.

EU 2015/16 coarse grain use is projected up 1.0 million tons this month to 161.4 million. Corn and barley feed use are each raised 0.5 million tons as less wheat is expected to be used for feed. The generally good quality of the EU wheat crop is expected to encourage holding the wheat in stocks for future sale as milling wheat instead of using it quickly as feed. There is also a small increase in forecast EU sorghum feed use.

U.S. 2015/16 FSI is raised 0.6 million tons. Canada's barley use is forecast up 0.3 million tons, with increases for both feed and FSI. Venezuela's corn FSI is increased 0.2 million tons with higher imports. Libya's barley feed and Lebanon's corn feed are each forecast up 0.1 million tons. Brazil's barley FSI is increased slightly.

India's 2015/16 coarse grain use is projected down 0.4 million tons, with the decline in corn more than offsetting the increase in millet. FSI is increased slightly, with millet up 0.4 million tons and corn down 0.3 million, but feed is cut, with a 0.6-million-ton decline for corn swamping the 0.1-million-ton increase for millet.

For Taiwan and Malaysia, corn feed use is projected down 0.2 million tons and 0.1 million, respectively, as the import pace supports less use. Chile's coarse grain use is trimmed 0.1 million tons with reduced oats, rye, and barley consumption more than offsetting an increase for corn. There are small reductions projected for use in Israel and Trinidad.

### ***World Coarse Grain Stocks Prospects Lowered Slightly***

World 2015/16 coarse grain stocks are projected down 0.2 million tons this month to 246.9 million but remain the largest in 28 years. Numerous small changes to 2015/16 beginning stocks caused by adjustments for 2014/15 supply and demand are rolled into changes for 2015/16 ending stocks.

The largest decline in 2015/16 projected coarse grain ending stocks is for Brazil, down 1.0 million tons to 9.1 million. Increased 2014/15 corn exports are reducing stocks. A small increase in barley stocks is fractionally offsetting. EU coarse grain ending stocks are forecast down 0.9 million tons to 13.6 million. Most of the decline is for barley and corn, with small reductions for oats and rye but increases for sorghum and mixed grain. Coarse grain ending stocks are forecast 0.2 million tons lower for Argentina, Australia, and South Africa, with smaller reductions for several countries.

Increased coarse grain ending stocks are expected this month for Canada, up 0.8 million tons to 4.1 million. With increased production, stocks of corn, barley, and oats are higher, but rye stocks are trimmed slightly. U.S. coarse grain stocks are

increased 0.7 million tons this month. Venezuela's corn stocks prospects are boosted 0.2 million tons, with several countries having smaller increases.





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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 and the annual Feed Yearbook reports.

### Related Websites

Feed Outlook

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

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

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

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Table 1--Feed grains: U.S. quarterly supply and disappearance (million bushels), 12/11/2015

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	2012/13	Sep-Nov	989	10,755	35	11,779	1,466	2,060	221	3,746	8,033	6.87	
		Dec-Feb	8,033		45	8,078	1,430	1,087	161	2,678	5,400	6.95	
		Mar-May	5,400		40	5,440	1,567	921	186	2,674	2,766	7.04	
		Jun-Aug	2,766		40	2,806	1,575	247	162	1,985	821	6.67	
		Mkt yr	989	10,755	160	11,904	6,038	4,315	730	11,083	821	6.89	
	2013/14	Sep-Nov	821	13,829	15	14,665	1,550	2,312	350	4,212	10,453	4.66	
		Dec-Feb	10,453		7	10,459	1,602	1,459	390	3,451	7,008	4.40	
		Mar-May	7,008		9	7,017	1,664	865	636	3,165	3,852	4.63	
		Jun-Aug	3,852		6	3,858	1,677	404	544	2,626	1,232	4.06	
		Mkt yr	821	13,829	36	14,686	6,493	5,040	1,920	13,454	1,232	4.46	
	2014/15	Sep-Nov	1,232	14,216	5	15,452	1,613	2,226	401	4,241	11,211	3.57	
		Dec-Feb	11,211		6	11,217	1,625	1,438	404	3,467	7,750	3.80	
		Mar-May	7,750		10	7,760	1,660	1,111	536	3,307	4,453	3.75	
		Jun-Aug	4,453		11	4,464	1,670	540	523	2,732	1,731	3.69	
		Mkt yr	1,232	14,216	32	15,479	6,568	5,315	1,864	13,748	1,731	3.70	
	2015/16	Mkt yr	1,731	13,654	30	15,415	6,580	5,300	1,750	13,630	1,785	3.35-3.95	
	Sorghum	2012/13	Sep-Nov	22.95	247.74	1.09	271.78	24.92	79.68	27.34	131.94	139.85	6.86
			Dec-Feb	139.85		0.06	139.91	24.92	4.31	19.15	48.37	91.54	6.76
			Mar-May	91.54		5.52	97.06	25.90	16.46	13.59	55.95	41.11	6.67
			Jun-Aug	41.11		2.91	44.01	19.60	-6.96	16.22	28.86	15.15	5.30
Mkt yr			22.95	247.74	9.57	280.27	95.34	93.48	76.30	265.11	15.15	6.33	
2013/14		Sep-Nov	15.15	392.33	0.01	407.49	45.00	97.71	33.39	176.10	231.39	4.28	
		Dec-Feb	231.39		0.01	231.40	10.00	4.19	41.48	55.67	175.73	4.22	
		Mar-May	175.73		0.01	175.74	12.01	2.58	68.72	83.32	92.42	4.68	
		Jun-Aug	92.42		0.07	92.49	2.88	-11.92	67.51	58.46	34.03	4.11	
		Mkt yr	15.15	392.33	0.09	407.57	69.89	92.56	211.10	373.54	34.03	4.28	
2014/15		Sep-Nov	34.03	432.58	0.21	466.82	10.36	150.23	83.64	244.23	222.59	3.63	
		Dec-Feb	222.59		0.12	222.71	2.88	2.62	97.36	102.86	119.86	4.17	
		Mar-May	119.86		0.00	119.86	1.05	-17.10	101.63	85.57	34.29	4.41	
		Jun-Aug	34.29		0.04	34.33	0.92	-55.30	70.30	15.92	18.41		
		Mkt yr	34.03	432.58	0.38	466.98	15.21	80.43	352.93	448.57	18.41	4.03	
2015/16		Mkt yr	18.41	593.81	1.78	614.00	100.00	130.00	325.00	555.00	59.00	3.20-3.80	

Table 1--Feed grains: U.S. quarterly supply and disappearance, cont. (million bushels), 12/11/2015

Commodity, market year, and quarter 1/		Beginning stocks	Production	Imports	Total supply	Food, seed, and industrial use	Feed and residual use	Exports	Total disappearance	Ending stocks	Farm price 2/ (dollars per bushel)		
Barley	2012/13	Jun-Aug	60	219	5	284	38	45	3	86	198	6.40	
		Sep-Nov	198		6	204	36	6	3	46	158	6.46	
		Dec-Feb	158		6	164	35	11	1	47	117	6.44	
		Mar-May	117		6	123	38	3	1	42	80	6.42	
		Mkt yr	60	219	23	302	147	66	9	222	80	6.43	
	2013/14	Jun-Aug	80	217	2	299	40	61	3	103	196	6.22	
		Sep-Nov	196		5	201	39	-11	3	31	169	5.98	
		Dec-Feb	169		4	173	37	10	4	52	122	6.03	
		Mar-May	122		8	129	37	6	4	47	82	5.93	
		Mkt yr	80	217	19	316	153	66	14	234	82	6.06	
	2014/15	Jun-Aug	82	182	7	271	39	48	4	91	180	5.69	
		Sep-Nov	180		4	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	151	43	14	209	79	5.30	
	2015/16	Jun-Aug	79	214	4	297	40	35	3	78	219	5.41	
		Mkt yr	79	214	17	310	153	50	10	213	97	4.90-5.50	
	Oats	2012/13	Jun-Aug	55	61	29	146	17	43	0	61	85	3.76
			Sep-Nov	85		27	112	18	21	0	39	73	3.84
			Dec-Feb	73		17	90	17	20	0	38	53	4.02
Mar-May			53		20	72	24	12	0	36	36	4.35	
Mkt yr			55	61	93	209	76	96	1	173	36	3.89	
2013/14		Jun-Aug	36	65	17	118	17	37	0	55	63	3.72	
		Sep-Nov	63		28	91	18	25	1	43	48	3.56	
		Dec-Feb	48		20	68	16	16	0	33	35	3.71	
		Mar-May	35		32	67	22	20	0	43	25	4.03	
		Mkt yr	36	65	97	198	73	98	2	173	25	3.75	
2014/15		Jun-Aug	25	70	27	122	18	30	1	48	74	3.34	
		Sep-Nov	74		24	99	18	13	0	32	67	3.16	
		Dec-Feb	67		32	99	17	22	0	39	59	3.08	
		Mar-May	59		24	84	24	5	0	30	54	2.89	
		Mkt yr	25	70	107	202	77	70	2	149	54	3.21	
2015/16		Jun-Aug	54	90	19	162	18	51	0	69	93	2.23	
		Mkt yr	54	90	95	238	77	100	2	179	59	2.05-2.35	

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: 12/10/2015

Table 2--Feed and residual use of wheat and coarse grains, 12/11/2015

Market year and quarter 1/	Corn	Sorghum	Barley	Oats	Feed grains	Wheat	Energy feeds	Grain consuming animal units	Energy feeds per grain consuming animal unit
	(million metric tons)	(million metric tons)	(million metric tons)	(million metric tons)	(million metric tons)	(million metric tons)	(million metric tons)	(millions)	(tons)
2013/14 Q1 Sep-Nov	58.7	2.5	-0.2	0.4	61.4	-4.6	56.8		
Q2 Dec-Feb	37.1	0.1	0.2	0.3	37.7	-0.0	37.7		
Q3 Mar-May	22.0	0.1	0.1	0.4	22.5	-0.7	21.8		
Q4 Jun-Aug	10.3	-0.3	1.0	0.5	11.5	7.0	18.5		
MY Sep-Aug	128.0	2.4	1.2	1.6	133.2	1.7	134.8	91.0	1.5
2014/15 Q1 Sep-Nov	56.6	3.8	-0.3	0.3	60.3	-2.5	57.8		
Q2 Dec-Feb	36.5	0.1	0.1	0.4	37.1	0.2	37.3		
Q3 Mar-May	28.2	-0.4	0.1	0.1	28.0	-1.4	26.6		
Q4 Jun-Aug	13.7	-1.4	0.8	0.8	13.9	8.1	21.9		
MY Sep-Aug	135.0	2.0	0.7	1.6	139.3	4.3	143.7	93.2	1.5
2015/16 MY Sep-Aug	134.6	3.3	1.2	1.6	140.7	5.0	145.8	94.6	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, 12/11/2015

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)		
	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16
Sep	4.78	3.16	3.55	5.27	4.14	4.22	9.84	7.91	8.08
Oct	4.20	3.09	3.67	5.13	4.15	4.36	9.31	8.52	8.23
Nov	4.10	3.45	3.62	5.06	4.54	4.22	8.86	9.04	7.89
Dec	4.13	3.75		5.06	4.55		9.34	9.85	
Jan	4.13	3.67		5.03	4.44		9.77	10.41	
Feb	4.33	3.65		5.32	4.41		10.16	10.70	
Mar	4.64	3.66		5.65	4.43		10.57		
Apr	4.98	3.59		5.65	4.38			9.97	
May	4.72	3.49		5.51	4.23			7.44	
Jun	4.37	3.52		5.14	4.24				
Jul	3.74	3.85		4.64	4.56				
Aug	3.59	3.51		4.48	4.14		8.41	8.09	
Mkt	4.31	3.53		5.16	4.35		9.53	9.10	
	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)		
	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16
Jun	5.01	3.49	2.59	6.88	5.71		4.21	3.88	2.89
Jul	4.66	3.01	2.70	6.79	5.62		3.84	3.85	2.82
Aug	4.03	2.58	2.41	5.88	5.79		3.78	3.83	2.63
Sep	3.48	2.30	2.39	5.41	5.98	4.95	3.40	3.86	2.70
Oct	3.39	2.44	2.57	5.50	7.28	4.95	3.57	3.68	2.58
Nov	3.46	2.48	2.60	5.46	7.35	4.95	3.79	3.53	2.67
Dec	3.52	2.68		5.77	7.35		3.80	3.49	
Jan	3.65	2.79		5.72	7.10		4.30	3.26	
Feb	3.70	2.73		5.64	6.75		4.64	3.11	
Mar	3.87	2.75		5.97			4.66	3.14	
Apr	3.95	2.81		6.24	6.35		4.58	2.94	
May	3.96	2.76		6.10	6.23		4.03	2.75	
Mkt	3.89	2.74		5.95	6.50		4.05	3.44	

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: 12/10/2015

Table 4--Selected feed and feed byproduct prices (dollars per ton), 12/11/2015

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		
	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16
Oct	443.63	381.50	327.97	355.00	346.88	292.50	157.50	90.13	96.00	601.25	549.38	509.38
Nov	451.13	441.40	308.60	345.00	313.13	291.88	158.38	105.13	109.63	631.25	581.88	477.50
Dec	498.31	431.74		401.88	334.38		168.00	143.30		638.13	613.50	
Jan	479.54	380.03		378.34	313.75		165.00	135.25		625.00	632.50	
Feb	509.25	370.39		388.75	302.50		167.50	117.25		668.13	631.25	
Mar	497.82	357.83		401.25	310.50		177.63	107.20		744.38	613.00	
Apr	514.01	336.61		405.50	288.13		166.60	83.13		784.00	575.63	
May	519.38	320.23		416.88	274.38		157.00	72.25		761.25	549.38	
Jun	501.72	335.03		412.50	281.00		131.88	74.40		694.50	571.60	
Jul	450.79	375.48		359.50	299.38		113.70	91.25		574.00	560.00	
Aug	490.33	357.85		310.00	295.63		109.25	88.75		572.88	550.63	
Sep	525.72	333.63		360.63	293.50		98.70	95.50		587.50	525.00	
Mkt yr	490.13	368.48		377.93	304.43		147.59	100.29		656.86	579.48	
	Meat and bone meal, Central US			Distillers dried grains, Central Illinois, IL			Wheat middlings, Kansas City, MO			Alfalfa hay, weighted-average farm price 2/		
	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16	2013/14	2014/15	2015/16
Oct	385.53	385.00	291.88	216.50	96.00	123.13	153.37	111.48	105.93	193.00	193.00	156.00
Nov	410.95	383.79	266.25	217.13	113.13	132.63	138.69	106.87	106.53	188.00	182.00	
Dec	459.57	424.22		220.50	159.30		198.00	135.83		186.00	180.00	
Jan	456.88	382.49		200.00	186.50		151.62	140.93		186.00	170.00	
Feb	438.75	370.63		214.38	187.13		150.24	124.85		190.00	190.00	
Mar	501.25	376.00		245.00	189.50		156.62	1,118.55		193.00	193.00	
Apr	560.00	390.63		243.50	191.00		133.38	81.93		207.00	183.00	
May	516.25	368.75		222.75	178.50		131.07	64.25		227.00	192.00	
Jun	506.88	313.50		184.50	157.50		102.43	60.27		224.00	178.00	
Jul	489.83	333.75		148.00	153.50		70.36	77.96		217.00	169.00	
Aug	464.37	388.75		116.88	115.13		81.24	92.72		207.00	159.00	
Sep	435.00	344.00		123.00	139.30		106.62	112.67		197.00	157.00	
Mkt yr	468.77	371.79		196.01	155.54		131.14	185.69		199.00	196.00	

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](http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp).

Table 5--Corn: Food, seed, and industrial use (million bushels), 12/11/2015

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	
2013/14	Q1 Sep-Nov	113.44	74.07	62.15	1,215.75	34.59	49.95	0.00	1,549.95
	Q2 Dec-Feb	110.13	74.24	60.77	1,271.14	36.26	49.82	0.00	1,602.36
	Q3 Mar-May	125.28	79.09	51.00	1,298.86	37.93	50.34	21.71	1,664.20
	Q4 Jun-Aug	128.89	80.92	44.84	1,337.94	32.78	50.41	1.22	1,677.00
	MY Sep-Aug	477.74	308.32	218.75	5,123.69	141.56	200.51	22.93	6,493.50
2014/15	Q1 Sep-Nov	115.54	74.61	62.35	1,276.24	34.52	50.11	0.00	1,613.37
	Q2 Dec-Feb	109.87	71.95	59.76	1,297.50	36.18	49.95	0.00	1,625.20
	Q3 Mar-May	123.73	77.29	50.18	1,298.69	37.85	50.47	21.42	1,659.63
	Q4 Jun-Aug	128.08	76.98	43.19	1,336.08	33.64	50.68	1.10	1,669.73
	MY Sep-Aug	477.22	300.82	215.47	5,208.50	142.19	201.21	22.52	6,567.93
2015/16	MY Sep-Aug	480.00	300.00	230.00	5,200.00	144.00	203.10	22.90	6,580.00

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

Source: Calculated by USDA, Economic Research Service.

Date run: 12/10/2015

Table 6--Wholesale corn milling product and byproduct prices, 12/11/2015

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)	
	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16
Sep	17.32	17.80	18.99	19.47	14.14	14.20	34.50	37.00	21.25	23.25
Oct	17.44	17.96	19.11	19.63	13.30	14.29	34.50	37.00	21.25	23.25
Nov	18.44	17.53	20.14	19.20	12.91	14.95	34.50	37.00	21.25	23.25
Dec	18.89		20.56		13.90		34.50		21.25	
Jan	18.94		20.61		14.11		37.00		23.25	
Feb	18.71		20.39		13.93		37.00		23.25	
Mar	18.51		20.06		13.90		37.00		23.25	
Apr	17.90		19.57		14.08		37.00		23.25	
May	17.62		19.29		14.50		37.00		23.25	
Jun	17.81		19.48		14.50		37.00		23.25	
Jul	18.40		20.07		14.41		37.00		23.25	
Aug	17.65		19.32		15.37		37.00		23.25	
Mkt year 2/	18.14		19.80		14.09		36.17		22.58	

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: 12/10/2015

Table 7--U.S. feed grain imports by selected sources (1,000 metric tons) 1/, 12/11/2015

Import and country/region	----- 2013/14 -----		----- 2014/15 -----		2015/16	
	Mkt year	Jun-Oct	Mkt year	Jun-Oct	Jun-Oct	
Oats	Canada	1,503	579	1,707	713	621
	Sweden	99		72		
	Finland	66	28	62	40	18
	All other countries	6	1	12	5	0
	Total 2/	1,674	608	1,852	758	639
Malting barley	Canada	242	63	334	152	89
	All other countries			28	0	0
	Total 2/	242	63	362	152	89
Other barley 3/	Canada	162	56	147	72	48
	All other countries	4	1	4	1	2
	Total 2/	166	57	151	74	50

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: 12/10/2015

Table 8--U.S. feed grain exports by selected destinations (1,000 metric tons) 1/, 12/11/2015

Export and country/region		----- 2013/14 -----		----- 2014/15 -----		2015/16
		Mkt year	Sep-Oct	Mkt year	Sep-Oct	Sep-Oct
Corn	Japan	11,939	1,164	12,081	1,739	1,220
	Mexico	10,490	1,691	11,289	1,973	2,071
	South Korea	4,961	181	3,944	550	67
	Colombia	3,562	302	4,340	788	808
	China (Mainland)	2,732	1,006	612	96	
	Egypt	2,644		1,235	391	124
	China (Taiwan)	1,780	94	1,850	109	118
	European Union-27	1,263	2	361	75	0.459
	Peru	1,246	60	2,555	550	229
	Venezuela	1,128	215	710	238	196
	Saudi Arabia	1,031	68	1,185		
	Guatemala	753	97	852	147	128
	Dominican Republic	596	54	607	78	0.020
	Costa Rica	593	57	774	158	92
	Vietnam	509	62	8	7	
	Canada	479	66	1,489	401	276
	Israel	469		27		
	El Salvador	409	66	542	87	69
	Honduras	375	42	428	60	46
	Panama	333	35	450	105	48
	Jamaica	283	37	287	44	32
	Morocco	202		298	30	0.628
	Cuba	137		26		
Nicaragua	121	11	191	38	29	
Indonesia	116	23	47	12		
All other countries	631	36	1,170	98	177	
Total 2/	48,783	5,369	47,359	7,774	5,729	
Sorghum	China (Mainland)	4,263	240	8,371	1,270	1,704
	Sub-Saharan Africa	444	182	484	181	71
	Japan	293	100	72	31	16
	Mexico	251	129	21	4	27
	All other countries	112	0.717	17	3	28
	Total 2/	5,362	653	8,965	1,488	1,845
		----- 2013/14 -----		----- 2014/15 -----		2015/16
		Mkt year	Jun-Oct	Mkt year	Jun-Oct	Jun-Oct
Barley	Japan	169	35	90	20	1
	Mexico	93	39	100	42	52
	Libya	21	21			
	China (Taiwan)	11	6	32	10	3
	All other countries	17	9	90	46	57
	Total 2/	311	109	312	119	114

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: 12/10/2015