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Feed Outlook

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China Sorghum Import Prospects Alter Corn Balance Sheet

The next release is January 14, 2018.

Approved by the World Agricultural Outlook Board.

Prospects for higher U.S. sorghum shipments have drawn sorghum away from ethanol mills and onto ships bound for China. Total projected 2017/18 sorghum exports are raised 50 million bushels. As a result, projected corn for ethanol is raised 50 million bushels to 5,525 million. Corn, sorghum, and oats prices are unchanged from last month. Barley is lowered 10 cents per bushel to $4.50 based on recent malting barley price trends.

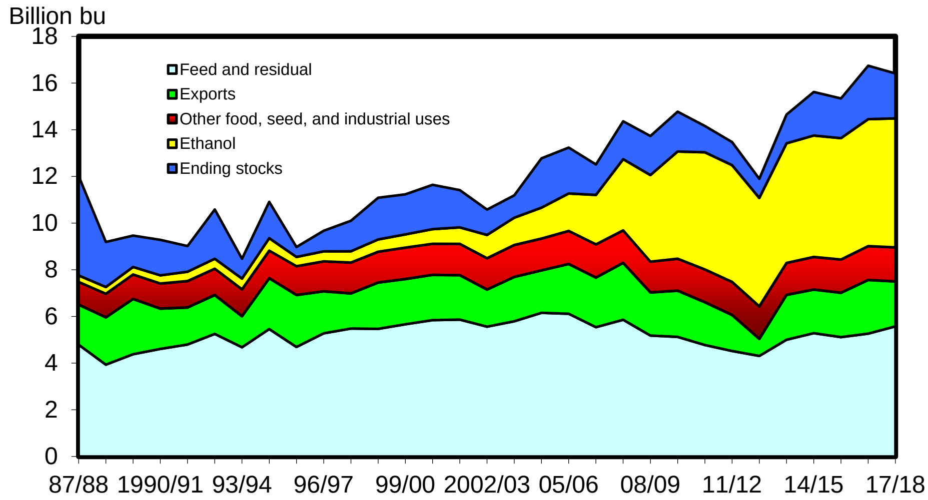
This month, sorghum imports are raised for China, reflecting stronger-than-expected export sales from the United States. Corn exports are lowered for Russia, reflecting a reduced production forecast, while a larger crop in Romania is expected to boost exports for the EU.

Domestic Outlook

Feed and Residual Projected Higher for 2017/18

Feed and residual use for the four feed grains and wheat in 2017/18 is at 151.9 million bushels, unchanged from last month. For 2016/17, feed and residual is increased due to a 5,000-bushel increase for wheat; but still rounds to 146.0 million bushels. Grain consuming animal units (GCAU) for 2017/18 are lowered less than 0.01 million units to 98.3 million. Feed and residual use per GCAU is projected nearly unchanged this month at 1.55 tons for 2017/18 and 1.52 tons for 2016/17.

Figure 1
U.S. corn utilization



Note: Marketing year 2017/18 is projected.
Source: USDA, World Agricultural Outlook Board, *WASDE.*

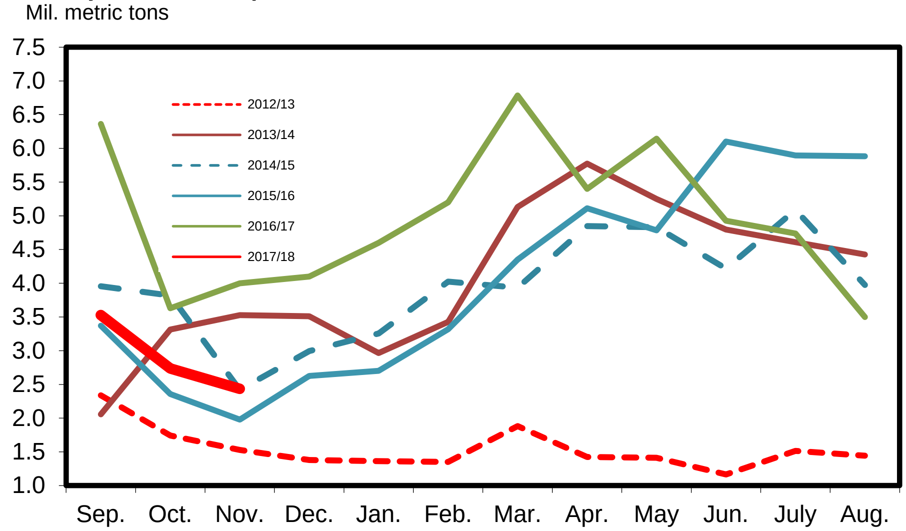
Corn Disappearance Raised 50 Million Bushels

Corn used for ethanol is projected 50 million bushels higher this month to balance a 50-million-bushel decline in sorghum used for ethanol. With no changes to feed and residual or nonfuel food, seed, and industrial (FSI) use categories or exports, total use is projected at 14,485 million bushels.

Carryout is projected lower at 2,437 million bushels. The projected corn price is unchanged this month, with a tightened range of $2.85 to $3.55 per bushel and a midpoint of $3.20 per bushel.

Figure 2

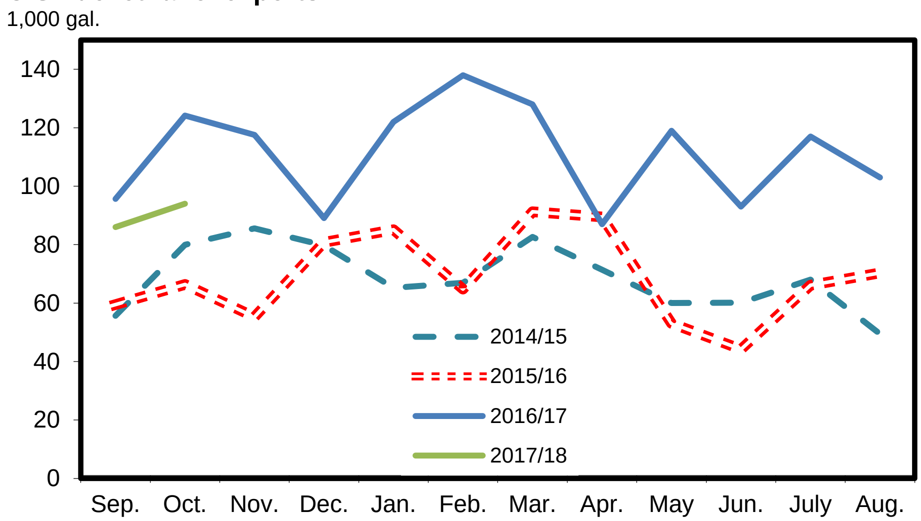
Monthly U.S. corn exports



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

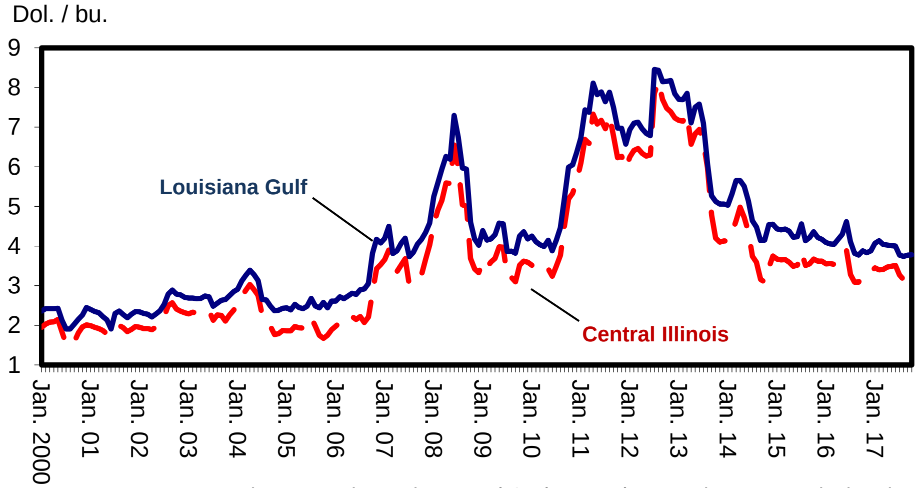
Figure 3

U.S. fuel ethanol exports



Source: USDC, U.S. Census Bureau.

Figure 4
Monthly corn (yellow #2) prices for Central Illinois and Louisiana Gulf

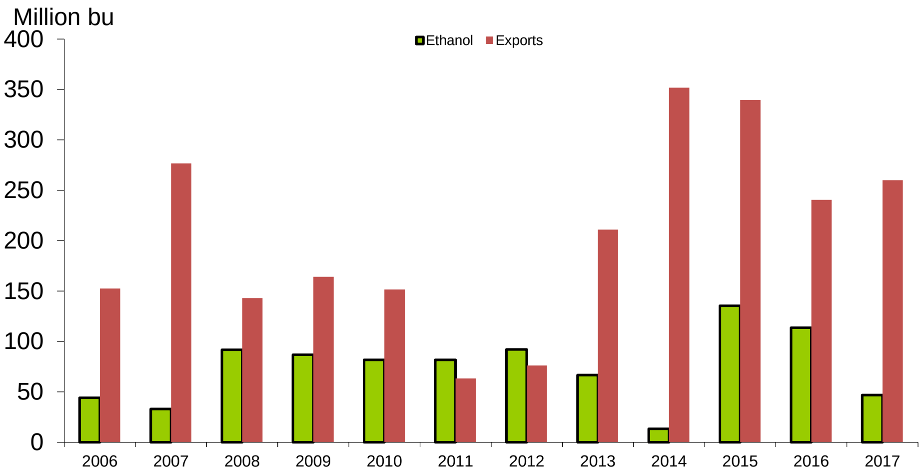


Sources: USDA, Economic Research Service, *Feed Grains Database* and USDA, Agricultural Marketing Service, http://marketnews.usda.gov/portal/lg.

China Roils Sorghum Market

Large sorghum purchases by China have sharply increased total U.S. export commitments, driving a 50-million-bushel increase in projected exports to 260 million bushels. Sorghum for ethanol is reduced 50 million bushels to offset the increase in exports, resulting in sorghum FSI of 50 million, half of last month's projection. Ending stocks are increased 2.0 million bushels to 21.2 million due to an increase in projected sorghum imports from 0 to 2.0 million bushels, which raised supply to 391.2 million. Higher imports are based on observed imports of Argentine sorghum to southeastern U.S. feed markets during the month of October.

Figure 5
U.S. sorghum for ethanol and exports



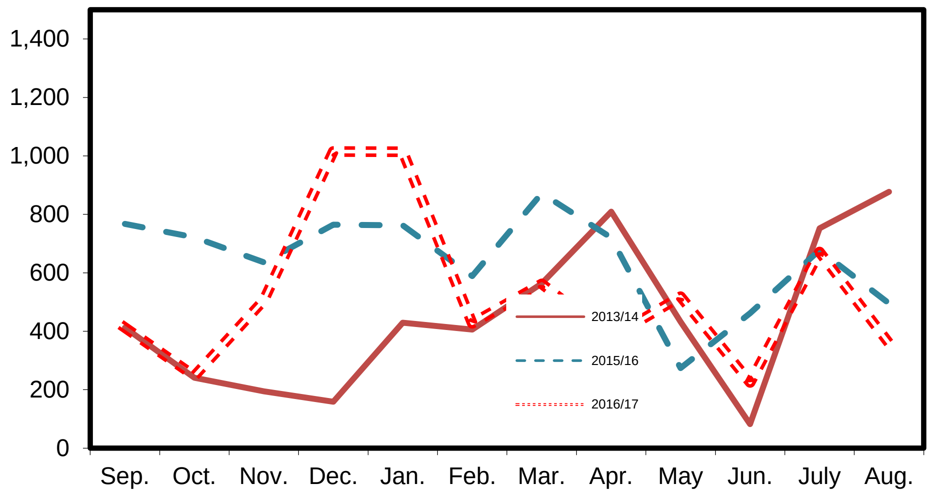
Source: USDA, National Agricultural Statistics Service, *Grains Crushings and Co-Products. Production.*

The average price received by producers for sorghum is unchanged at $3.10 per bushel, although the range has been narrowed 5 cents on each end. Sorghum is priced at 97 percent of the price of corn at the national level, but in numerous markets, such those on the Gulf, sorghum is priced higher than corn. Typically, sorghum is priced at 92-95 percent of the corn price. Export markets in Texas and Louisiana saw sorghum priced 113 percent of the price of corn during November.

Figure 6

U.S. sorghum exports

1,000 metric tons



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

Barley Price Lowered

There were no changes in the barley balance sheet this month. Recent trends in malting barley markets have lowered the projected barley price forecast 10 cents per bushel to $4.50. Malting barley prices were lowered $0.10 per bushel to $4.70, and feed barley prices were unchanged at $3.05.

There were no changes in oats supply, demand, or price this month.

Trade in Corn Byproducts Is Trending Upward

Byproducts of ethanol production are an important source of livestock and poultry feed both domestically and internationally. Dried distiller's grains with solubles (DDGS), corn gluten feed (CGF), and corn gluten meal (CGM) are the major categories of ethanol byproduct feeds shipped. During the first 2 months of the 2017/18 crop year, byproduct feed shipments were 2 percent higher than in the same period in 2016/17. DDGS were the major category shipped at 1.9 million tons, a slight decline from last year. Mexico, Turkey, Indonesia and South Korea were major buyers. Shipments of CGM were 1 percent lower than September-October 2016 at 104,000 tons. Indonesia, Egypt, Colombia, and Canada were major destinations. CGF shipments reached 272,000 tons, 47 percent over those of the previous 2-month period. Major destinations were Ireland, Turkey, Israel, and the United Kingdom.

International Outlook

Global coarse grain production for 2017/18 is forecast 1.4 million tons higher this month to 1,323.9 million. Increases for China, Canada, the EU, Guatemala, and Brazil more than offset a reduction for Russia.

China's National Bureau of Statistics released 2017/18 corn production estimates based on survey data. These indicate corn area did not go down as much as expected and is up 0.4 million hectares relative to the last forecast to 35.4 million hectares, generating a crop of 215.9 million tons, up 0.9 million this month. Area planted for corn has been declining for 2 years, as elimination of Government support followed by a decline in corn prices (though still higher than world prices) lowered incentives for corn production.

EU 2017/18 coarse grain production is raised 0.4 million tons this month to 150.8 million, mostly due to additional reports of large production in Romania. A sharp increase in the corn projection for Romania, up 1.5 million tons to 11.5 million, drives EU corn production up. Romania is expected to reach record yield this year, despite serious heat in July. High yields in a year with partly adverse weather conditions became possible, as technological improvements in agriculture and infrastructure facilitated by EU financial support are spreading all over the country. The changes are both technological and managerial. One of the latter is a decision to plant corn much earlier than usual so that the crop goes through pollination in June and escapes predictable July heat. As a result, this year's August dryness in Romania appears to have little or no impact on yields. EU corn production is up 0.5 million tons this month to 60.1 million. Smaller adjustments are made this month for EU barley (down 0.3 million tons), oats (up 0.1 million tons), rye (down 0.1 million tons), and mixed grains (up 0.1 million tons). In all cases, small and virtually offsetting changes in multiple European countries are involved.

Statistics Canada reported survey-based production for 2017 crops, with dramatic increases for wheat and canola but only minor revisions for coarse grains, specifically barley, up 0.7 million tons to 26.2 million.

For a glance at information and specific causes of the revisions and details of this month's changes in coarse grain production, see tables A1, A2, and map A. The changes in global, foreign, and U.S coarse grain production by type of grain are shown in table A1, while changes in coarse grain production by country and type of grain are given in table A2.

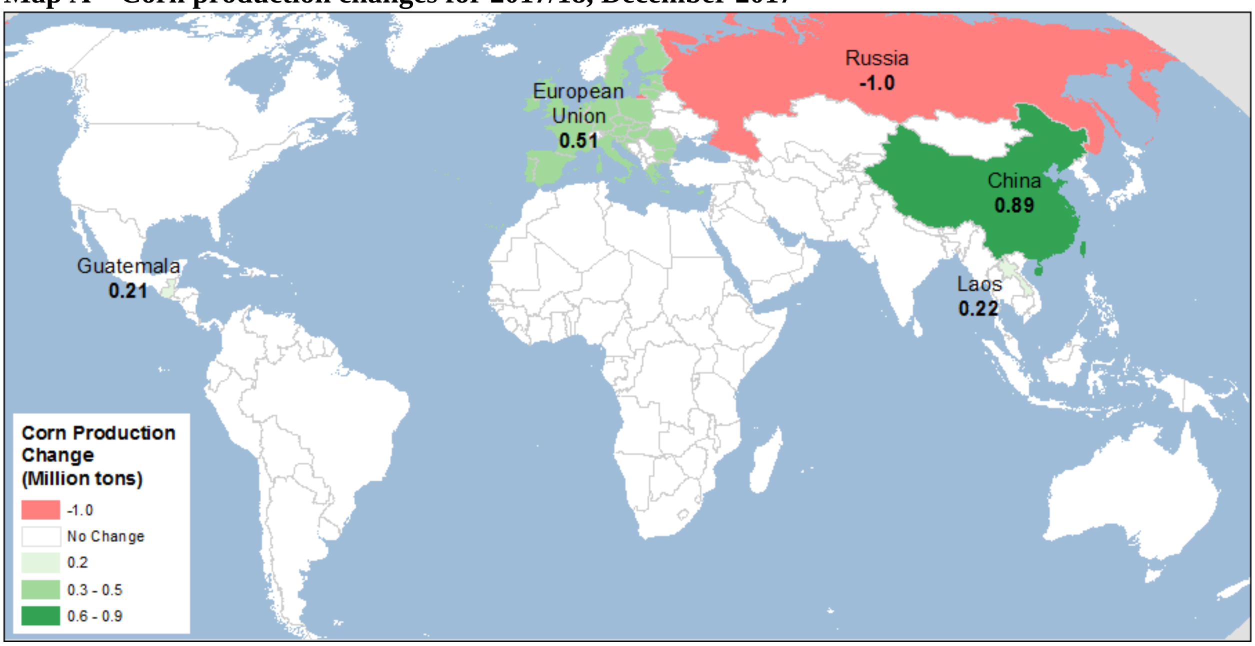
Table A1 - World and U.S. coarse grain production at a glance (2017/18), December 2017					
	Region or country	Production	Change from previous month[1]	YoY change[2]	Comments
		Million tons			c
Coarse grain production (total)					
	World	1,323.9	+1.4	-42.4	
	Foreign	940.5	+1.4	-23.2	Changes are made for a number of countries and commodities. See table A2.
	United States	383.4	No change	-19.2	See section on U.S. domestic output.
World production of coarse grains by type of grain					
CORN					
	World	1,044.8	+0.9	-30.8	
	Foreign	674.5	+0.9	-16.3	Higher production in China, EU, and Guatemala is partly offset by a reduction in Russia.
	United States	370.3	No change	-14.5	See section on U.S. domestic output.
BARLEY					
	World	141.9	+0.2	-5.3	
	Foreign	138.8	+0.2	-4.0	Increased prospects in Canada are partly offset by a reduction in the EU and Uruguay. See table A2.
	United States	3.1	No change	-1.3	See section on U.S. domestic output.

[1]Change from previous month. [2]YoY: year over year changes. [3]European Union. Fractional changes are also made for all other types of coarse grain.

For changes and notes by country, see table A2.

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

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



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

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

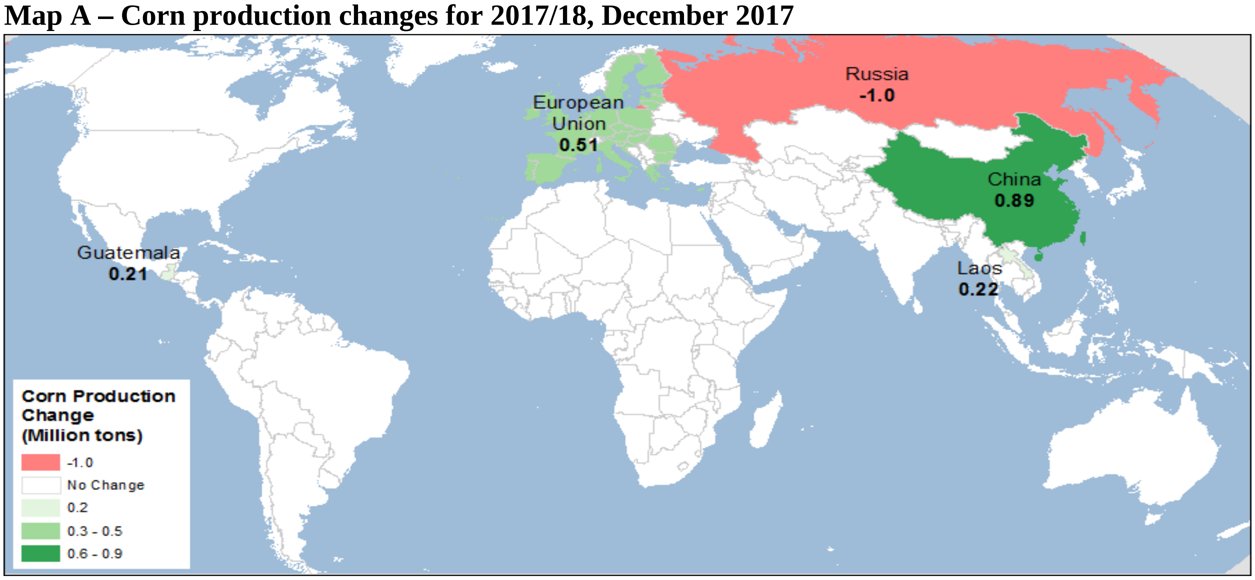
	Type of crop	Crop year	Production	Change in forecast[1]	YoY[2] change	Comments
			Million tons			
Coarse grain production by country and by type of grain (2017/18)						
CHINA						
↑	**Corn**	*Oct-Sep*	**215.9**	**+0.9**	**-3.7**	The increase in production based on the latest information released by the National Bureau of Statistics (NBS).
EUROPEAN UNION (EU)						
↑	**Corn**	*Oct-Sep*	**60.1**	**+0.5**	**-1.4**	Sharp increase in corn projections for ***Romania***, up 1.5 million tons to 11.5 million, drives EU corn production up. Partly offsetting are reductions for ***Poland***, ***Spain***, ***Slovakia***, ***Hungary,*** and several other EU countries.
↓	**Barley**	*Jul-Jun*	**58.7**	**-0.3**	**-1.2**	Lower-than-projected yields in ***Lithuania***, ***Ireland***, and ***Spain*** more than offset upward adjustments for Poland and several other countries.
CANADA						
↓	**Barley**	*Jun-May*	**7.9**	**-0.7**	**-0.9**	The increase is based on the latest Statistics Canada survey that provides final production estimates for the current crop year. The survey indicated excellent yields, despite concerns about drought in the Prairies and excess moisture in the East.
RUSSIA						
↓	**Corn**	*Oct-Sep*	**14.0**	**-1.0**	**-1.3**	Harvested area is reduced as crop reports indicate slower-than-expected progress.

[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.

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

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



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

China Drives Global Coarse Grain Use Projection Higher

World coarse grain disappearance for 2017/18 is projected up 1.7 million tons this month to 1,354.1 million, with a major increase for China based on increased imports. Chinese 2017/18 sorghum feed and residual use is forecast up 1.3 million tons based on massive imports from the United States. While China applies tariff quotas to imported wheat and corn, its sorghum imports are free from those. In addition, because sorghum is non-GMO, it avoids China's asynchronous approval process for biotechnology. With China bidding up sorghum prices, U.S. domestic ethanol producers are getting priced out of domestic sorghum and are expected to use increased corn as a source for ethanol production. For a feature on growing Chinese demand for sorghum, its sorghum imports expansion, and the corresponding growth of U.S. sorghum exports, see ***Grain: World Markets and Trade, Foreign Agricultural Service, December 17, p.18*** https://apps.fas.usda.gov/psdonline/circulars/grain.pdf

For information and specific causes of the revisions and details of this month's changes in coarse grain consumption, see table B; for a visual display of all of this month's changes, see map B.

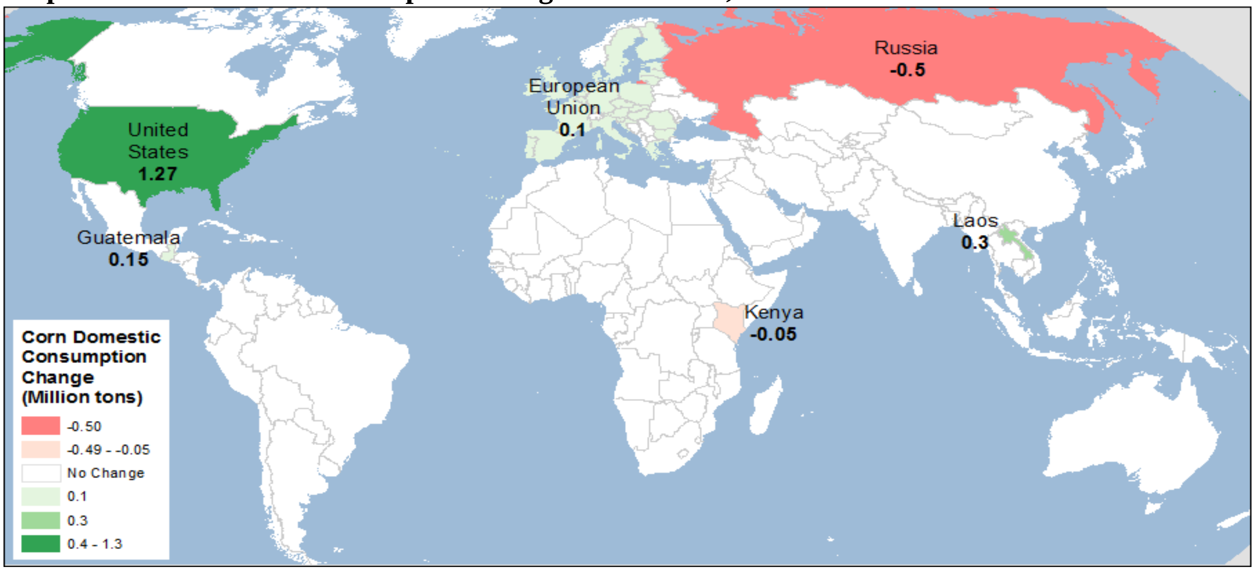
Table B - Coarse grain domestic consumption at a glance (2017/18), December 2017

	Country or region	Domestic consumption	Change[1]	Comments
		Million tons		
↑	**World**	**1,354.1**	**+1.7**	
↑	**Foreign**	**1,024.8**	**+1.7**	Foreign domestic use of ***sorghum*** is raised 1.3 million tons, ***barley*** use is up 0.3 million tons, and ***corn*** use is up 0.1 million tons.
	United States	**329.3**	**No change**	Food and industrial consumption (FSI) of ***corn*** is raised by 1.3 million tons while FSI use of ***sorghum*** is down the same 1.3 million tons. See section on U.S. domestic coarse grains and international section.
↑	**China**	**261.4**	**+1.3**	Based on revised import forecast, ***sorghum*** feed consumption is projected 1.3 million tons higher, replacing and supplementing more expensive feed options.
↑	**Canada**	**23.2**	**+0.3**	Higher projected ***barley*** output justify increased demand for barley feeding.
↓	**Russia**	**32.6**	**-0.2**	Reduced ***corn*** output is expected to affect corn feeding.
↓	**Ukraine**	**10.5**	**-0.1**	The lackluster developments in Ukrainian livestock (especially in the cattle and hog industry) and the downward trend of production of combined grain feed suggest lower than expected feed use of grain. The trend started in 2014/15, and further downward revisions of feed use are also made for 2016/17.

[1]Change 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 domestic consumption changes for 2017/18, December 2017



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

World Sorghum Trade Is Expanded

Projected 2017/18 world coarse grain trade for the international trade year (October-September) is up by 1.4 million tons to 188.3 million this month, as the United States is projected to export yet more sorghum to China. With increased U.S. exports, world sorghum trade in 2017/18 is projected up 1.3 million tons to 8.4 million. China's imports are projected up the same 1.3 million tons to 6.3 million based on the pace of shipments and sales. Imports of sorghum by China are supported by highly competitive prices of imported sorghum relative to domestic corn and by an absence of trade restrictions (tariff-rate quotas), in contrast to corn imports.

A curious development this month is a sizeable increase in corn imports for Brazil despite the mammoth existing supplies of cheap domestic corn. The country imported an additional 0.4 million tons of corn into its southern tip from Paraguay. The unit price of this corn from Paraguay is relatively very low, and considerable poultry production is concentrated in that part of Brazil justifying the purchase.

Other changes in coarse grain trade follow this month's production revisions. Export prospects for EU corn are revised up 0.5 million tons to reflect changes in supplies and competitiveness, while corn exports for Russia decline, fully offsetting the change. Other changes in coarse grain trade are fractional.

Contacts and Links

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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.

Related Websites

Mann Library Feed Outlook page
Mann Library WASDE page

Grain Circular https://www.fas.usda.gov/commodities/grain-and-feed

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Table 1--Feed grains: U.S. quarterly supply and disappearance (million bushels), 12/14/2017

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	1,710	584	696	2,990	1,737	3.55
		Mkt yr	1,731	13,602	68	15,401	6,648	5,114	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	3.26
		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	1,748	972	689	3,409	5,229	3.46
		Jun-Aug	5,229		14	5,243	1,742	688	518	2,948	2,295	3.40
		Mkt yr	1,737	15,148	57	16,942	6,891	5,463	2,293	14,647	2,295	3.36
	2017/18	Mkt yr	2,295	14,578	50	16,922	6,985	5,575	1,925	14,485	2,437	2.85-3.55
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	35.25	3.10	57.48	95.83	84.71	2.79
		Jun-Aug	84.71		1.73	86.44	25.10	-20.07	47.87	52.90	33.54	3.53
		Mkt yr	36.63	480.26	1.74	518.63	115.04	129.48	240.57	485.10	33.54	2.79
	2017/18	Mkt yr	33.54	355.63	2.00	391.17	50.00	60.00	260.00	370.00	21.17	2.75-3.45

Table 1--Feed grains: U.S. quarterly supply and disappearance, cont. (million bushels), 12/14/2017

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	40	47	4	91	180	5.69
		Sep-Nov	180		5	184	39	-15	4	28	156	5.25
		Dec-Feb	156		6	163	37	5	3	44	118	5.07
		Mar-May	118		6	124	44	-3	4	45	79	4.86
		Mkt yr	82	182	24	287	160	34	14	209	79	5.30
	2015/16	Jun-Aug	79	218	4	301	41	38	3	82	219	5.39
		Sep-Nov	219		4	223	37	1	4	43	180	5.52
		Dec-Feb	180		7	187	36	11	3	50	138	5.66
		Mar-May	138		4	141	44	-5	1	39	102	5.43
		Mkt yr	79	218	19	315	158	44	11	213	102	5.52
	2016/17	Jun-Aug	102	200	2	304	41	32	1	74	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	45	-6	2	41	106	4.96
		Mkt yr	102	200	10	312	162	39	4	205	106	4.96
	2017/18	Jun-Aug	106	142	2	251	42	27	2	71	180	4.52
		Mkt yr	106	142	15	263	162	35	5	202	61	4.10-4.90
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	23	10	1	34	57	2.11
		Mkt yr	54	90	86	229	77	94	2	172	57	2.12
	2016/17	Jun-Aug	57	65	21	142	19	44	1	64	79	1.87
		Sep-Nov	79		28	106	18	12	1	31	75	2.03
		Dec-Feb	75		24	100	17	18	1	37	63	2.35
		Mar-May	63		18	81	22	8	1	31	50	2.42
		Mkt yr	57	65	90	212	76	82	3	162	50	2.06
	2017/18	Jun-Aug	50	49	19	119	18	28	1	47	72	2.35
		Mkt yr	50	49	100	200	78	90	2	170	30	2.30-2.70

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: 12/13/2017

Table 2--Feed and residual use of wheat and coarse grains, 12/14/2017

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	59.8	-2.9	56.8		
	Q2 Dec-Feb	36.5	-0.2	0.2	0.3	36.9	0.1	36.9		
	Q3 Mar-May	23.2	-0.1	-0.1	0.2	23.2	-1.2	22.0		
	Q4 Jun-Aug	14.8	-1.1	0.7	0.7	15.2	7.2	22.4		
	MY Sep-Aug	129.9	2.7	0.8	1.5	135.0	3.2	138.2	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	24.7	0.1	-0.1	0.2	24.8	-1.6	23.2		
	Q4 Jun-Aug	17.5	-0.5	0.6	0.5	18.0	5.0	23.0		
	MY Sep-Aug	138.8	3.3	0.7	1.2	144.0	2.0	146.0	95.7	1.5
2017/18	MY Sep-Aug	141.6	1.5	1.1	1.8	146.0	5.9	151.9	98.3	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, 12/14/2017

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)	
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	2015/16	2016/17
Sep	3.55	3.09	3.15	4.22	3.78	3.74	8.08	
Oct	3.67	3.27	3.15	4.36	3.88	3.77	8.23	
Nov	3.62	3.28	3.14	4.22	3.83	3.78	7.89	
Dec	3.62	3.34		4.17	3.88			
Jan	3.55	3.45		4.09	4.07			
Feb	3.56	3.51		4.06	4.14			
Mar	3.54	3.40		4.05	4.04			
Apr	3.61	3.41		4.17	3.98			
May	3.74	3.47		4.30	4.03			
Jun	3.91	3.49		4.62	4.01			7.56
Jul	3.28	3.51		4.11	4.00			
Aug	3.09	3.27		3.82	3.77			
Mkt year	3.56	3.37		4.18	3.95		8.07	7.56

	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	2.10			4.70	2.63	2.34	2.98
Sep	2.39	1.95	2.10	4.95		4.70	2.70	2.29	2.87
Oct	2.57	2.00	2.10	4.95		4.70	2.58	2.67	2.97
Nov	2.60	2.00	2.36				2.67	2.84	2.94
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	4.70		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: 12/12/2017

Table 4--Selected feed and feed byproduct prices (dollars per ton), 12/14/2017

Mkt year and month 1/	Soybean meal, high protein, Central Illinois, IL 2015/16	2016/17	2017/18	Cottonseed meal, 41% solvent, Memphis, TN 2015/16	2016/17	2017/18	Corn gluten feed, 21% protein, Midwest 2015/16	2016/17	2017/18	Corn gluten meal, 60% protein, Midwest 2015/16	2016/17	2017/18
Oct	327.97	323.26	319.24	292.50	241.88	229.00	96.00	77.00	80.70	509.38	466.13	469.30
Nov	308.60	322.42	313.52	291.88	221.00	228.75	109.63	83.50	93.00	477.50	477.50	487.24
Dec	289.78	321.03		265.00	217.50		113.13	92.83		482.25	501.67	
Jan	279.57	332.34		248.75	223.50		109.63	97.50		452.50	502.50	
Feb	273.61	334.32		238.13	221.88		102.38	88.13		457.50	516.50	
Mar	276.23	320.34		216.50	210.63		87.00	87.13		445.50	505.63	
Apr	303.81	305.67		207.50	195.00		73.25	75.00		434.00	501.13	
May	376.36	293.68		242.50	179.50		87.00	71.00		464.10	485.30	
Jun	408.58	258.75		284.00	179.38		107.13	68.38		568.13	475.75	
Jul	371.49	326.04		280.00	200.84		95.01	71.35		573.13	467.88	
Aug	340.80	301.05		280.00	198.50		90.30	73.10		507.20	475.50	
Sep	337.95	307.70		285.00	213.75		85.38	75.00		469.38	469.25	
Mkt yr	324.56	312.22		260.98	208.61		96.32	79.99		486.71	487.06	

	Meat and bone meal, Central US 2015/16	2016/17	2017/18	Distillers dried grains, Central Illinois, IL 2015/16	2016/17	2017/18	Wheat middlings, Kansas City, MO 2015/16	2016/17	2017/18	Alfalfa hay, weighted-average farm price 2/ 2015/16	2016/17	2017/18
Oct	291.88	237.50	228.00	123.13	116.25	117.30	105.93	79.43	70.36	155.00	135.00	152.00
Nov	266.25	229.00	219.38	132.63	111.70	123.13	106.53	85.53	86.85	147.00	130.00	
Dec	221.67	211.67		133.13	104.84		99.55	101.62		149.00	127.00	
Jan	200.13	255.60		132.50	96.30		104.16	98.25		141.00	126.00	
Feb	193.75	285.00		136.63	98.88		97.89	84.66		137.00	127.00	
Mar	261.00	284.38		134.50	98.25		68.64	80.76		139.00	134.00	
Apr	316.25	266.25		122.38	99.25		65.12	58.03		154.00	150.00	
May	310.10	245.50		141.10	100.50		60.72	48.41		146.00	157.00	
Jun	345.00	248.13		170.50	105.25		57.94	60.39		140.00	154.00	
Jul	381.67	276.25		149.38	110.63		61.48	67.10		138.00	152.00	
Aug	347.00	318.50		130.90	110.00		60.61	63.15		137.00	147.00	
Sep	285.63	301.88		127.75	111.63		64.43	67.48		136.00	149.00	
Mkt yr	285.03	263.31		136.21	105.29		79.42	74.57		158.00	136.00	

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), 12/14/2017

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	60.03	1,342.34	33.27	51.13	2.63	1,710.44
	MY Sep-Aug	472.11	337.44	238.52	5,223.61	143.00	203.10	30.56	6,648.34
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	88.16	56.08	1,371.14	36.35	52.33	0.00	1,710.44
	Q3 Mar-May	119.64	96.14	59.72	1,353.63	36.72	54.45	27.40	1,747.69
	Q4 Jun-Aug	126.35	97.09	61.18	1,370.67	37.15	47.60	2.10	1,742.14
	MY Sep-Aug	465.54	370.19	236.90	5,438.51	146.00	204.30	29.50	6,890.94
2017/18	MY Sep-Aug	460.00	380.00	235.00	5,525.00	149.00	206.50	29.50	6,985.00

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

Source: Calculated by USDA, Economic Research Service.

Date run: 12/12/2017

Table 6--Wholesale corn milling product and byproduct prices, 12/14/2017

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)	
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
Sep	16.71	16.01	18.38	17.68	13.21	14.41	39.00	39.00	26.75	28.25
Oct	17.06	15.94	18.73	17.61	13.39	13.87	39.00	39.00	26.75	28.25
Nov	16.89	15.78	18.56	17.45	13.87	13.90	39.00	39.00	26.75	28.25
Dec	16.84		18.51		14.23		39.00		26.75	
Jan	17.07		18.74		14.05		39.00		28.25	
Feb	17.13		18.80		14.20		39.00		28.25	
Mar	17.06		18.40		14.41		39.00		28.25	
Apr	16.99		18.58		14.29		39.00		28.25	
May	16.91		18.58		14.38		39.00		28.25	
Jun	16.89		18.56		14.74		39.00		28.25	
Jul	16.89		18.56		15.04		39.00		28.25	
Aug	16.25		17.92		14.98		39.00		28.25	
Mkt year 2/	16.89		18.53		14.23		39.00		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: 12/12/2017

Table 7--U.S. feed grain imports by selected sources (1,000 metric tons) 1/, 12/14/2017

Import and country/region		---------- 2015/16 ----------		---------- 2016/17 ----------		2017/18
		Mkt year	Jun-Oct	Mkt year	Jun-Oct	Jun-Oct
Oats	Canada	1,378	606	1,508	666	652
	Sweden	62		27		41
	Finland	34	18	21	10	10
	All other countries	0	0	0	0	0
	Total 2/	1,475	624	1,556	677	703
Malting barley	Canada	285	90	103	26	36
	All other countries	0	0	17	17	0
	Total 2/	285	90	119	43	36
Other barley 3/	Canada	116	48	89	31	43
	All other countries	4	2	2	1	0
	Total 2/	119	49	90	32	44

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: 12/12/2017

Table 8--U.S. feed grain exports by selected destinations (1,000 metric tons) 1/, 12/14/2017

Export and country/region		---------- 2015/16 ---------- Mkt year	Sep-Oct	---------- 2016/17 ---------- Mkt year	Sep-Oct	2017/18 Sep-Oct
Corn	Mexico	13,337	2,081	13,916	2,203	2,717
	Japan	10,439	1,220	13,527	1,980	1,023
	Colombia	4,548	775	4,730	807	818
	South Korea	2,964	67	5,601	1,374	147
	Peru	2,383	229	2,986	474	586
	China (Taiwan)	2,038	119	2,966	368	79
	Saudi Arabia	1,389		2,138	274	0.231
	Venezuela	1,155	196	419	100	75
	Canada	1,014	276	704	187	234
	Guatemala	906	128	993	165	74
	Egypt	852	124	323	121	
	Algeria	663		91		0.119
	El Salvador	631	69	593	71	39
	Costa Rica	552	92	819	108	136
	Honduras	550	46	505	87	50
	Morocco	450	0.628	871	227	
	European Union-27	413	0.459	843	124	46
	Vietnam	413		200	133	0.026
	Panama	392	48	504	104	104
	Israel	388		83		
	Chile	353	0.199	543	247	0.258
	China (Mainland)	321		807	2	7
	Jamaica	283	32	275	34	43
	Nicaragua	258	29	329	50	30
	Dominican Republic	253	0.020	807	120	10
	All other countries	1,342	204	2,670	502	43
	Total 2/	48,288	5,735	58,242	9,860	6,264
Sorghum	China (Mainland)	7,034	1,754	4,801	439	462
	Mexico	625	27	585	92	22
	Sub-Saharan Africa	593	71	475	58	2
	Pakistan	205		0.466		
	All other countries	170	44	250	25	30
	Total 2/	8,626	1,895	6,111	615	515
		---------- 2015/16 ---------- Mkt year	Jun-Oct	---------- 2016/17 ---------- Mkt year	Jun-Oct	2017/18 Jun-Oct
Barley	Mexico	142	52	2	0.783	
	Canada	52	35	63	15	37
	Morocco	14	14			
	China (Taiwan)	7	3	4	2	2
	All other countries	21	9	26	7	17
	Total 2/	235	114	95	24	56

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: 12/12/2017