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Feed Outlook

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Feed Outlook monthly tables, in excel format, can be found on the Feed Outlook report page on USDA's Economic Research Service website.

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- Domestic Outlook
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Lower Yield Forecast Reduces 2019/20 Projected Crop Size

A 1.3-bushel-per-acre reduction in the projected corn yield results in a 102-million-bushel cut in the U.S. corn crop. Harvested area is unchanged at 82.0 million acres. At 13,799 million bushels, the crop is the smallest since 2015. Higher carryin partly offsets the smaller crop for a 17-million-bushel reduction in total supplies to 16,295 million bushels. For 2018/19, corn for ethanol is lowered 50 million bushels and exports are lowered 40 million. Corn for ethanol for 2019/20 is lowered 25 million bushels, reflecting observed use during 2018/19. Resulting disappearance is lowered 90 million and 25 million bushels for 2018/19 and 2019/20, respectively. Ending stocks for 2019/20 are up 9 million bushels. The season-average price received by farmers is unchanged.

Projections for U.S. corn exports in the 2019/20 October-September international trade year are unchanged, although exports are reduced for 2018/19, reflecting a slowdown in sales and an acceleration of exports by South America.

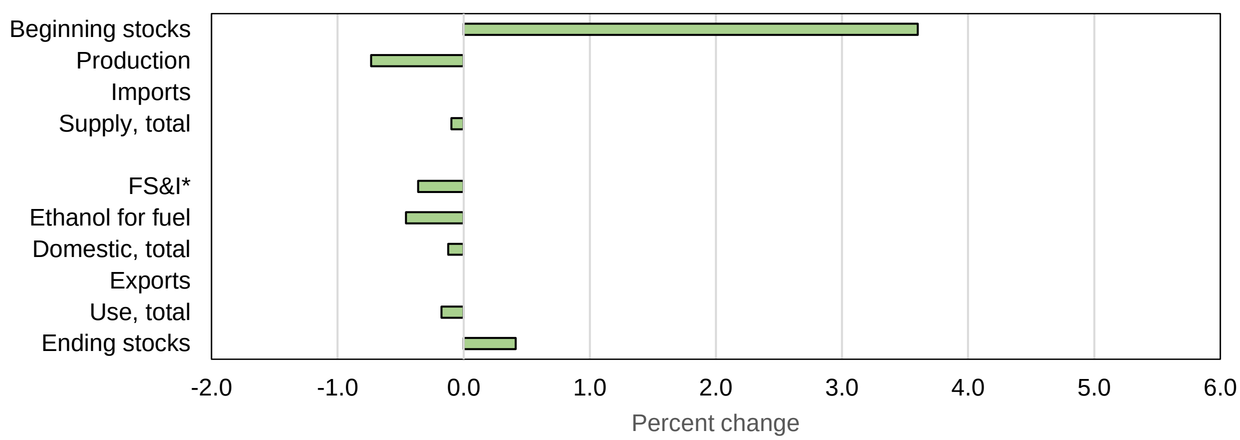
Domestic Outlook

2019/20 Crop Projected 102 Million Bushels Lower This Month

The national corn yield is forecast at 168.2 bushels per acre, down 1.3 bushels from last month based on the first USDA, National Agricultural Statistics Service (NASS) objective yield survey of the corn crop combined with the second agricultural yield survey as well as satellite imagery. If realized, this will result in a crop of 13,799 million bushels, 102 million below last month's projection. Combining this amount with an 85-million-bushel increase in beginning stocks puts total supply at 16,295 million bushels, 291 million below last year's estimate. Feed and residual use and exports are unchanged from last month's forecast.

Figure 1

Corn supply and use: percent change from last month's forecast (2019/20)



Source: USDA, Economic Research Service, Feed Grains Database.
* Food, seed, and industrial

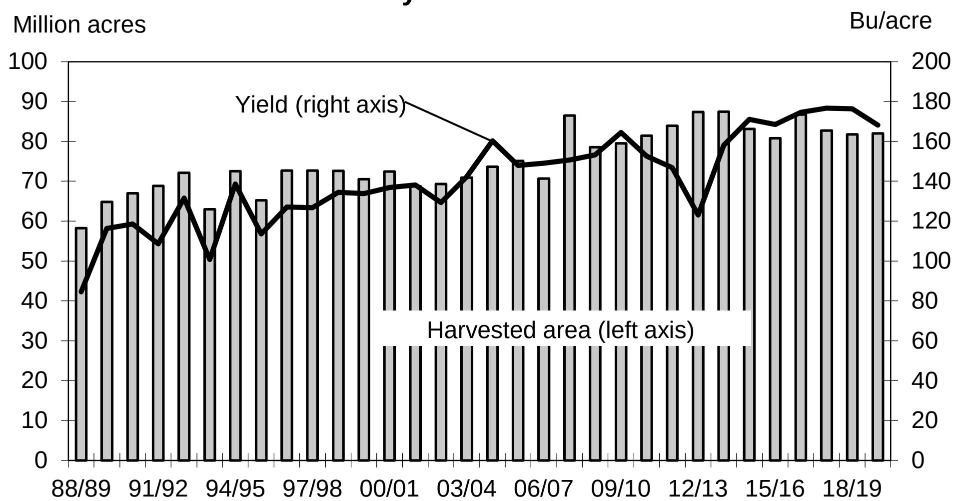
Grain Consuming Animal Units Raised

Grain consuming animal units (GCAU) for 2019/20 are projected at 102.6 million, up less than 0.4 million from last month's projection of 102.2 million. Increases to beef cattle, layers, and broilers drive this month's increase.

Feed and Residual Use: Four Feed Grains and Wheat

Feed and residual use for the four feed grains (corn, sorghum, barley, and oats) and wheat on a September-August marketing year basis for 2019/20 is projected at 141.0 million tons, unchanged from last month's forecast. For 2018/19, feed and residual is lowered by 1 million ton to a projection of 144.5 million tons on lower oat feed and residual.

Figure 2
U.S. corn harvested area and yield



Sources: USDA, Economic Research Service with data from USDA. National Agricultural Statistics Service, QuickStats and USDA, World Agricultural Outlook Board, Crop Projections, 2019.

Corn for Ethanol Cut for Current Crop and Out Year

Projected corn use for fuel ethanol in 2018/19 is lowered 50 million bushels this month to 5,375 million based on observed data to date. The NASS *Grain Crushings and Co-Product Production* report indicates a small decline in corn used for fuel ethanol in July, which puts the September-July total 200 million bushels, or 4 percent, behind 2017/18. Energy Information Administration weekly data for August indicate ethanol production of roughly 1,340 million gallons, bringing total projected use to 5,375 million. Stocks of ethanol ended August at nearly 1 billion gallons.

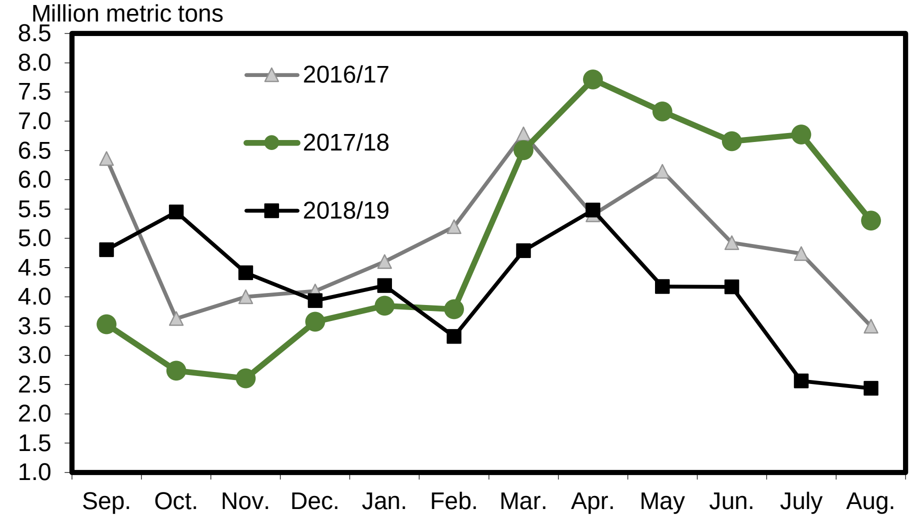
For 2019/20, corn for ethanol is lowered 25 million bushels to 5,450 million, based on observed use during 2018/19.

Corn used for seed in 2018/19 was lowered this month as NASS's *Crop Production* report indicated plant populations for the objective yield region at a level below expectations. As a result, corn for seed was lowered 1.4 million bushels to 29.4 million, with an offsetting increase to estimated cereal use. There were no other changes in food, seed, and industrial (FSI) categories this month.

Total 2019/20 use is projected at 14,105 million bushels, 25 million below last month's forecast. The resulting carryout is 2,190 million bushels, up 9 million.

Figure **3**

Monthly U.S. corn exports

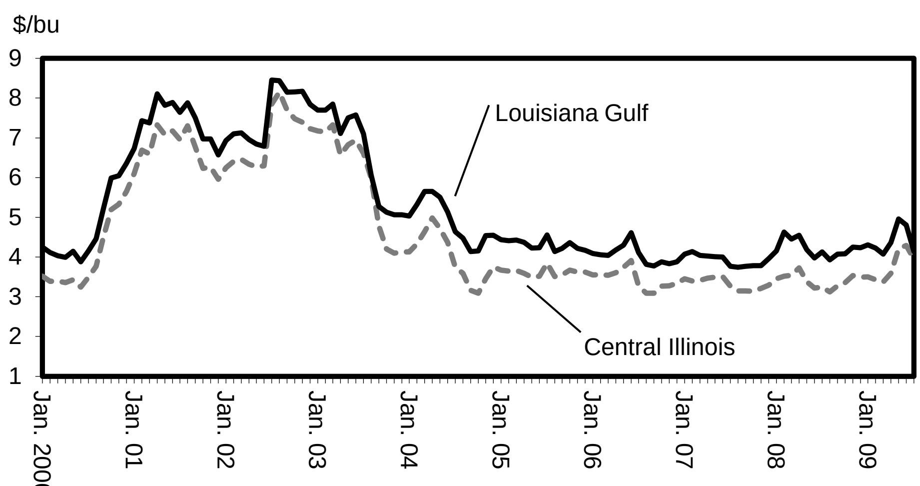


Source: USDA, Economic Research Service with data from USDC, U.S. Census Bureau, August 2019 *Grain Inspections*.

The projected season-average corn price received by farmers for 2019/20 is $3.60 per bushel, unchanged from last month's forecast. The stocks-to-use ratio for 2019/20 is projected at 15.5, an increase of 0.1 over last month's projection.

Figure 4

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



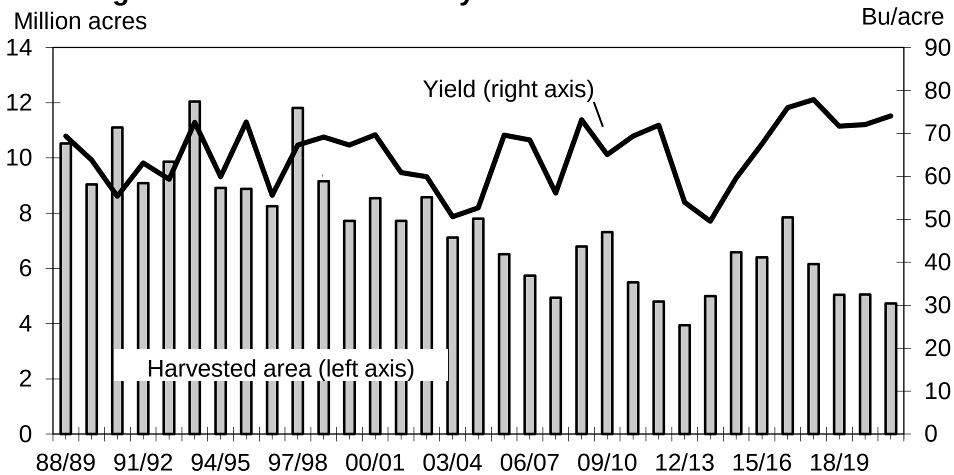
Sources: USDA, Economic Research Service with data from USDA, National Agricultural Statistics Service, Quick Stats and USDA, World Agricultural Outlook Board, Crop Projections, 2019.

Sorghum 2018/19 Exports Higher, 2019/20 Supply Down

U.S. sorghum exports in 2018/19 are revised up by 5.0 million bushels from last month's estimates based on trade data to date. This reduced the ending stocks for the year by 5.0 million bushels, with no other supply or use changes. The projected season-average price for 2018/19 is refined to $3.25 per bushel, up $0.05 from prior estimates.

Figure 5

U.S. sorghum harvested area and yield



Sources: USDA, Economic Research Service with data from, USDA, National Agricultural Statistics Service, *Quick Stats* and USDA, World Agricultural Outlook Board, *WASDE.*

The reduction in 2018/19 ending stocks leads to beginning stocks in 2019/20 also being reduced by the same 5.0 million bushels to 54.9 million. Further reductions in supply in 2019/20 are driven by a small 0.050-million-acre reduction in expected harvested area by NASS being partially offset by a 0.4-bushel-per-acre increase in the yield forecast. Area harvested is now forecast at 4.7 million acres, with a yield of 74.3 bushels per acre. These changes result in a total reduction of 7.2 million bushels to supply in 2019/20. No use changes are anticipated, so ending stocks are projected lower to 46.5 million, down 7.2 million bushels.

2019/20: Oat Imports Fall With Less Feed Use for the Year

Oats imports in 2019/20 are projected down 10.0 million bushels over last month's estimate to 100.0 million, based on trade data to date. This reduction in supply leads to a reduction in projected feed and residual use at 80.0 million bushels, resulting in projected ending stocks being unchanged month over month. Anticipated season-average price is also shifted up by $0.05 per bushel to $2.95 per bushel for 2019/20, based on observed prices through July.

International Outlook

World Coarse Grain Production Reduced This Month

Coarse grain output is down marginally this month, as reductions in corn, oats, and sorghum are partly offset by higher barley and rye output. For more information and a display of this month's output changes, see tables A1 (for aggregate global and foreign, and U.S., changes) and table A2 (for specific country changes).

Table A1 - World and U.S. coarse grain production[1] at a glance (2019/20), September 2019

Region or country	Production	Change from previous month[1]	YoY change[2]	Comments
	Million tons			
Coarse grain production (total)				
World	1,396.4	-2.4	+1.2	
Foreign	1032.1	+0.2	+16.8	Changes are projected for major coarse grain producers. See table A2.
United States	364.3	-2.6	-15.6	Lower projected yield. See section on U.S. domestic output.
World production of coarse grains by type of grain				
CORN				
World	1,104.9	-3.4	-17.3	
Foreign	754.4	-0.8	-1.5	Lower corn output projected in Ukraine, Chile, and Burma. See table A2.
United States	350.5	-2.6	-15.8	See section on U.S. domestic output.
BARLEY				
World	154.1	+1.8	+14.5	
Foreign	150.3	+1.8	+14.1	Higher barley production in European Union (EU), Russia, Ukraine, and Kazakhstan is partly offset by reductions for Australia and Canada. See table A2.
United States	3.7	No change	+0.4	See section on U.S. domestic output.
SORGHUM				
World	59.2	-0.3	-0.1	
Foreign	50.2	-0.3	+0.2	A reduction of sorghum output in Brazil. See table A2.
United States	8.9	-0.1	-0.3	See section on U.S. domestic output.
OATS				
World	22.9	-1.0	+1.0	
Foreign	22.0	-1.0	+1.0	Lower oats production in Argentina, Australia, Canada, EU, and Chile. See table A2.
United States	0.9	No change	+0.1	See section on U.S. domestic output.
RYE				
World	11.7	+0.5	+1.7	
Foreign	11.5	+0.5	+1.7	Higher production in European Union. See table A2.
United States	0.2	No change	Small change	See section on U.S. domestic output.

[1]Change from previous month. [2] YoY: year over year changes. **For changes and notes by country, see table A2.**
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.

Table A2 - Coarse grain production by country at a glance, September 2019						
	Type of crop	Crop year	Production	Change in forecast[1]	YoY[2] change	Comments
			Million tons			
Coarse grain production changes by country and by type of grain (2019/20)						
RUSSIA						
↑	**Barley**	*July-June*	**20.0**	**1.5**	**3.3**	Barley yields are adjusted higher this month based on harvest reports, with about 80 percent harvested.
UKRAINE						
↑	**Barley**	*July-June*	**9.2**	**+0.6**	**+1.6**	The harvest is over and barley output is adjusted higher this month based on harvest reports.
↓	**Corn**	*Oct-Sep*	**36.0**	**-0.5**	**+0.2**	Corn yields are adjusted 1.3 percent down reflecting dry August and a decline in the Vegetation Health Index (VHI) in September.
KAZAKHSTAN						
↑	**Barley**	*July-June*	**3.9**	**+0.2**	**-0.1**	Barley area is projected higher as the final numbers were reported by the Government Statistical agency, partly offsetting reduction in yields. Weather conditions in the major crop areas in Kazakhstan (especially in Kostanai) have been deteriorating and yields are adjusted down.
EUROPEAN UNION						
	Corn	*Oct-Sep*	**64.8**	**No change**	**+0.6**	Reduced production in France and Germany because of lower reported area and slightly lower yields is fully offset by increases in Bulgaria (higher area) and Romania (boosted yields).
↑	**Barley**	*July-June*	**60.7**	**+0.4**	**+4.9**	Higher barley output is projected for France, though the increase is partly offset by a reduction for Germany.
↑	**Rye**	*July-June*	**8.0**	**+0.5**	**+1.8**	Higher rye area is reported for ***Germany.***
CANADA						
↓	**Barley**	*Aug-Jul*	**9.9**	**-0.3**	**+1.5**	Yields are adjusted down based on the survey-based report issued by Statistics Canada in September 2019.
↓	**Oats**	*Aug-Jul*	**4.0**	**-0.4**	**+0.6**	See above line.
AUSTRALIA						
↓	**Barley**	*Nov-Oct*	**8.6**	**-0.6**	**+0.3**	The reduction is made based mainly on lower projected area and yield in New South Wales (NSW) and Queensland (QLD), where fields are being abandoned, cut for hay, or grazed off as dryness and heat continues to hammer NSW and QLD.
↓	**Oats**	*Nov-Oct*	**1.2**	**-0.1**	**+0.3**	Oats grow in the same areas as barley in Australia and were affected in the same way, see above box.
ARGENTINA						
↓	**Oats**	*Dec-Nov*	**0.4**	**-0.3**	**-0.2**	Lower area is projected this month based on information from the Ministry of Agriculture.
BRAZIL						
↓	**Sorghum**	*Oct-Sep*	**2.0**	**-0.3**	**No change**	Sorghum area reduced this month based on the 2018/19 revision.
CHILE						
↓	**Corn**	*Mar-Feb*	**0.9**	**-0.2**	**-0.1**	Corn area is projected lower and has been declining for several years, as growers shift away to specialty crops.
↓	**Oats**	*Dec-Nov*	**0.4**	**-0.2**	**No change**	Lower area is projected this month.
BURMA						
↓	**Corn**	*Oct-Sep*	**2.3**	**-0.1**	**-0.1**	Both area and yield projected lower, as rainfall throughout the growing season was scarce, on par with 2017.

[1]Change from previous month. Smaller changes are also made for several countries. [2] YoY: year over year changes.

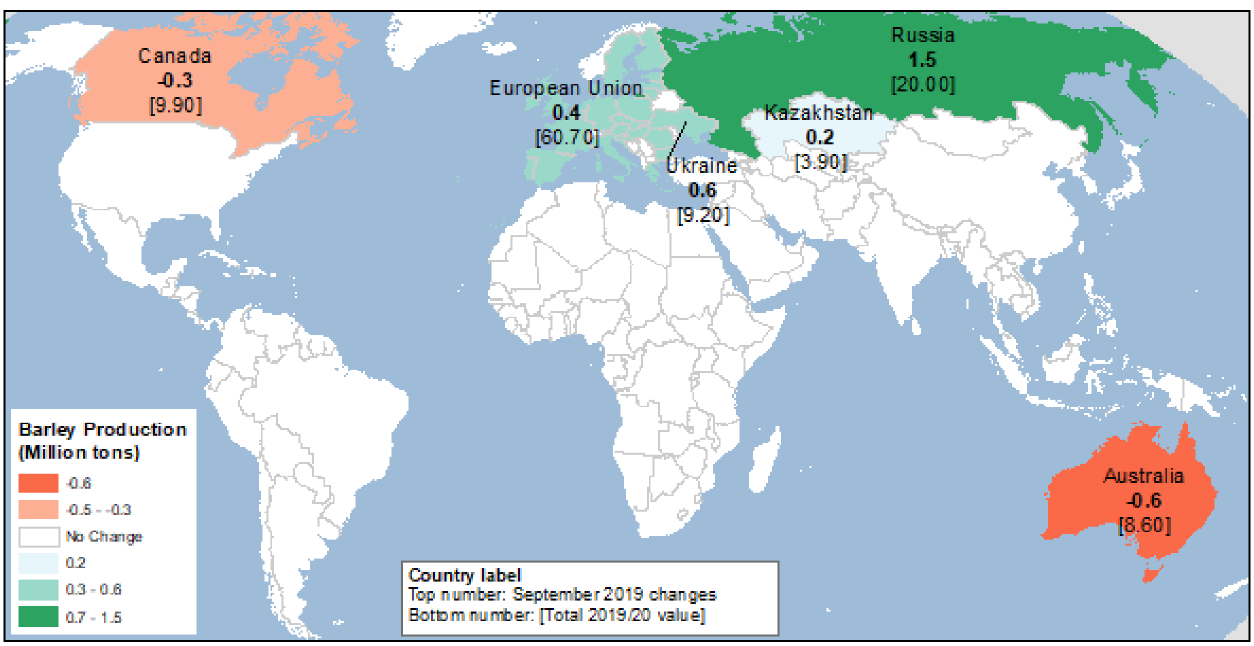
[3] ABARES: the Australian Bureau of Agricultural and Resource Economics and Sciences.

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

Global corn output is projected 3.4 million tons lower this month, with the bulk of the reduction coming from the United States, while foreign corn output is projected down just 0.8 million tons. Among the foreign production changes, a 0.5-million-ton reduction for Ukraine is the most significant. Ukrainian corn grows primarily in the north-central part of the country, and precipitation there during most of the reproductive period (July through early August) was favorable. However, in the second part of August, during the late filling stage of the corn crop, the weather was very dry. On the bright side, the temperatures were low, as heat stayed to the west of the major corn areas. The Vegetation Health Index (VHI), which indicates yield potential, dropped markedly from the excellent level at the beginning of August to a lower reading in September, suggesting yield reduction. Ukrainian corn production and yield are now projected 1 percent lower than a month ago at 36.0 million tons, an output level slightly higher than last year's record although as corn area increased, yields are projected 6 percent lower than last year.

The change in the prospects for foreign barley production is the largest among coarse grain crops this month, up 1.8 million tons to 154.1 million, the largest crop since 2008/09. In the European Union (EU), as well as in Russia and Ukraine, barley yields are projected higher based mainly on harvest reports, while in Kazakhstan, an increase in area offsets lower projected yields. The Canadian and Australian barley crops are expected to decline, see table A2 above. For a visual display of production changes in barley, see map A below.

Map A – Barley production changes for 2019/20, September 2019



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

World Coarse Grain Use Slightly Reduced

Global coarse grain use in 2019/20 is projected down 1.3 million tons this month to 1,416.2 million, a very small decline. About half of the reduction is in ***U.S.*** corn ethanol use, which is reduced this month for the current and past year (see domestic section).

With lower projected production, oats consumption is reduced for Argentina and Chile. Oats use is also projected slightly down for China, reflecting lower anticipated imports from the drought-affected Australia.

Lower projected sorghum output warrants a reduction in sorghum use for Brazil.

Partly offsetting those other reductions in coarse grain use, barley feeding in ***Russia*** is projected 0.6 million tons higher this month, thanks to a production boost. A 0.3-million-ton reduction in Canadian barley feeding (because of lower projected output) is partly offsetting.

With a fractional increase of 0.2 million tons in projected world 2019/20 coarse grain ending stocks over the previous month, the new projection of 336.2 million ton remains the lowest since 2014, down more than 23 million tons from the year before (with China driving this year-over-year decline).

Foreign corn ending stocks are down 1.7 million tons, led by a decline in Brazil, due to an upward revision in 2018/19 corn exports, and in Ukraine because of lower 2019/20 projected corn output. Barley foreign stocks are projected higher, up 1.4 million tons, and are partly offsetting reductions in corn stocks. The changes in barley stocks are in line with this month's increased production numbers for Russia, Canada, the EU, and Ukraine. Changes in ending stocks for other coarse grains are smaller.

2019/20 World Corn Trade Unchanged, 2018/19 Trade Is Up

Global corn trade for the October-September international trade year **2019/20** is unchanged this month at 172.8 million tons. Despite a 0.5-million-ton lower projected Ukrainian corn crop, the country's exports are left unchanged month-to-month at 30.0 million tons. The output reduction is expected to affect not trade but rather domestic use and corn stocks in this strongly export-oriented country. U.S corn exports for both the 2019/20 October-September international trade year and September-August local marketing year are left unchanged.

There were several revisions for the **2018/19** trade year. For the **2018/19** October-September trade year, corn trade is forecast 1.5 million tons higher this month to reach 171.8 million tons, as attractive prices continue to encourage imports. Corn imports are boosted for the EU and Iran, up 0.5 million tons each, as well as for Vietnam and South Korea, both up 0.1 million tons, mainly due to expanding shipments from Brazil. Consequently, Brazil's ***2018/19*** exports are boosted another 2.0 million tons this month to a new record of 39.5 million. Brazilian exports in August continued to beat all previous records for monthly exports, capitalizing on both the record-high corn output and a relatively weak real.

Changes for several other countries for 2018/19 corn imports are smaller and based on pace of sales.

The ***2018/19*** record corn harvests and currency depreciation in both Brazil and Argentina boosted the two countries' price competitiveness vis-à-vis the United States late in the 2018/19 October-September trade year. Although the price spread between those countries and the United States is getting smaller with the approach of the U.S. harvest, the United States is not expected to become price competitive through January 2020 with either Argentina or Brazil.

U.S. corn exports started to slow down abruptly in June with sharply higher prices, and the decline continued in August, as inspections came out at a mere 2.4 million tons, one of the lowest August levels of U.S. corn exports since 1986. Two other years with low August sales were 2012 and 2013, when U.S. yearly exports reached only 38.2 and 18.2 million tons, respectively. This suggests lower-than-expected exports in both August and September, just as competitors' exports from the Southern Hemisphere, and soon from Ukraine, surge.

Consequently, U.S. corn exports for the ***2018/19*** October-September international trade year are reduced this month by 0.5 million tons to 52.5 million. The September-August 2018/19 local marketing year projection is reduced by 40 million bushels to 2,060 million.

Suggested Citation

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