United States Department of Agriculture

Economic Research Service | Situation and Outlook Report

WHS-18h | August 14, 2018.

Next release is September 14, 2018

Wheat Outlook

Jennifer K. Bond
Olga Liefert

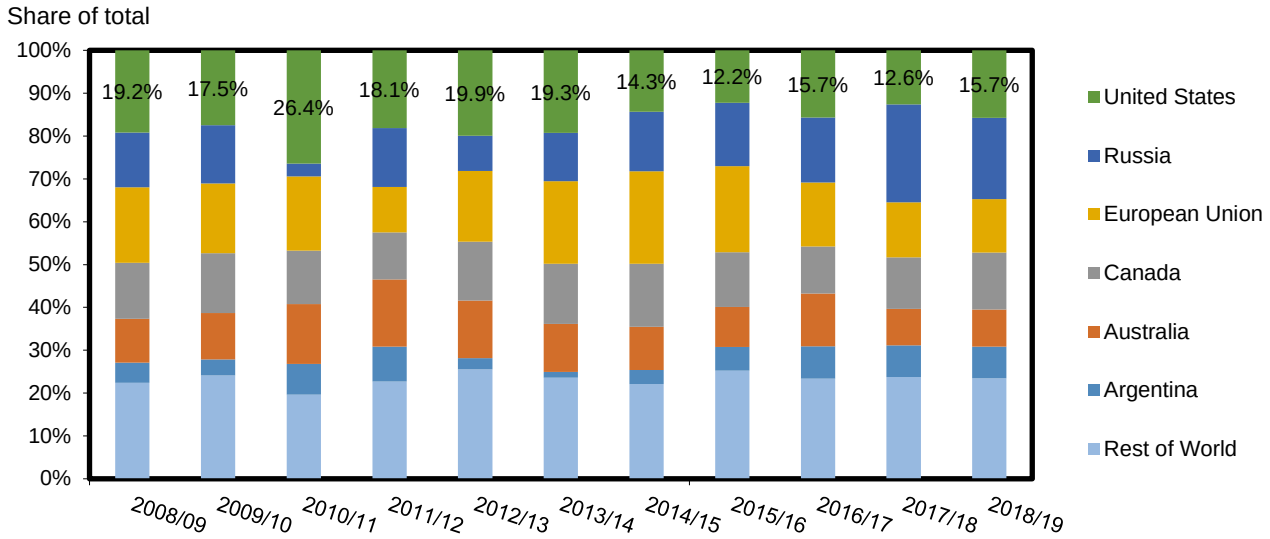
In this report:

- Domestic Outlook
- Domestic Feature: Import Code Review Leads to Single Code Redistribution
- International Outlook

Global Wheat Production Down Sharply; U.S. Exports Lifted

Global 2018/19 wheat production is cut 6.6 million metric tons this month on a sharp decline in production in the European Union (EU). This opens further opportunities for U.S. exports, especially in the second half of the marketing year. The U.S. 2018/19 export forecast is lifted 50 million bushels from the July forecast to 1,025 million. Based on the revised export forecast, the U.S. share of global wheat exports is forecast at nearly 16 percent in 2018/19, compared to 12.6 percent for the 2017/18 marketing year (figure 1).

Figure 1: Share of global wheat exports by country



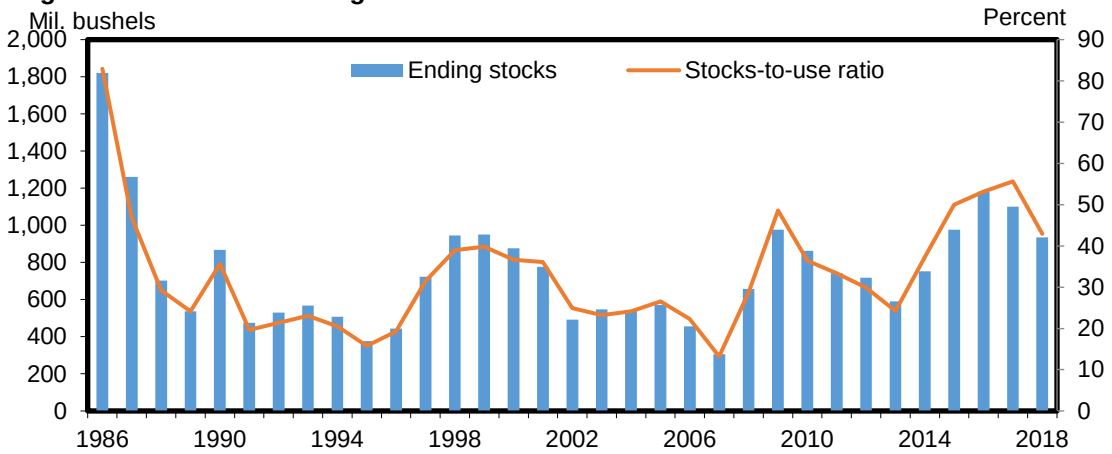
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution database and USDA, Economic Research Service calculations based on USDA, National Agricultural Statistics Service data.

Domestic Outlook

Domestic Changes at a Glance:

- Based on the USDA, National Agricultural Statistics Service (NASS) August *Crop Production* report, U.S. all-wheat production in 2018 is down very slightly (about 4 million bushels) from the previous month.
- All-wheat food use for 2017/18 is raised 1.4 million bushels from the July forecast to 964.4 million, based on data released in the August 1 USDA, NASS *Flour Milling Products* report.
- Projected food use for 2018/19 is raised 5 million bushels to a record 970 million on the enhanced 2017/18 estimate, population growth, and favorable economic indicators.
- Increased availability of corn and sorghum, as well as, a rising wheat-to-corn price ratio provide support for a 10 million bushel cut the 2018/19 wheat feed and residual figure.
- U.S. all-wheat exports are raised 50 million bushels on tightening global production and reduced exportable supplies, especially for the EU.
- Ending stocks are reduced by 50 million bushels to 935 million, down 15 percent from 2017/18 and the lowest since 2014/15.
- A tightening stocks-to-use ratio (43 percent), primarily the result of higher projected exports, provides support for a 10-cent-per-bushel increase in the season-average farm price, despite a 20 cent month-to-month decline in the comparable corn price (figure 2).
- Updated "historical" wheat by class by quarter spreadsheets posted to the Wheat Data landing page reflect the revised allocation of import code 1001990096. (See box on page 8 for more details.)

Figure 2: U.S. wheat ending stocks and stocks-to-use ratio



Source: USDA, World Agricultural Outlook Board and USDA, Economic Research Service calculations.

Table 1 - U.S. wheat supply and utilization at a glance 2017/18 and 2018/19					
Balance sheet item	**2017/18**	**2018/19 (July)**	**2018/19 (August)**	**2018/19 Change from previous month**	**2018/19 Comments**
Supply, total	*Million bushels*				***May-June Marketing Year (MY)***
Beginning stocks	1,180.6	1,100.3	1,100.3	0.0	
Production	1,740.6	1,881.4	1,876.8	-4.7	All-wheat harvested area is down 150,000 acres; yields are cut by 0.10 bushels per acre. Production declines for winter and durum.
Imports	155.0	135.0	135.0	0.0	
Supply, total	3,076.2	3,116.7	3,112.1	-4.7	With no change to carry-in or imports, supply is reduced by the full value of the production decline.
Demand					
Food	964.4	965.0	970.0	5.0	Based on economic indicators and a higher 2017/18 food use, 2018/19 food use is lifted to a new record high of 970 million bushels.
Seed	64.4	62.0	62.0	0.0	
Feed and residual	49.8	130.0	120.0	-10.0	Growing volume of domestic feed grains and a sizable price drop for competing foodstuff, reduce demand for wheat feeding.
Domestic, total	1,078.6	1,157.0	1,152.0	-5.0	The cut in projected feed and residual is partially offset by expanded food use.
Exports	901.1	975.0	1,025.0	50.0	U.S. exports are raised on reduced exportable supplies from competing countries, most notably the EU.
Use, total	1,979.7	2,132.0	2,177.0	45.0	
Ending stocks	1,100.3	984.7	935.1	-49.7	Export growth offsets cut to domestic use, tightening the balance sheet.
Source: USDA, World Agricultural Outlook Board *Supply and Demand Estimates.*					

Wheat Production by Class Updated in August Crop Production Report

Forecasts of U.S. all-wheat and wheat-by-class production were updated in USDA, NASS's August *Crop Production* report (table 2). Reported NASS data are gleaned from objective yield

and farm operator surveys, conducted between July 25 and August 6, and include farmers in the States that typically account for 75 percent of U.S. production. The USDA, NASS *Small Grains Annual* report, published at the end of September, will provide the next update to wheat-by-class production.

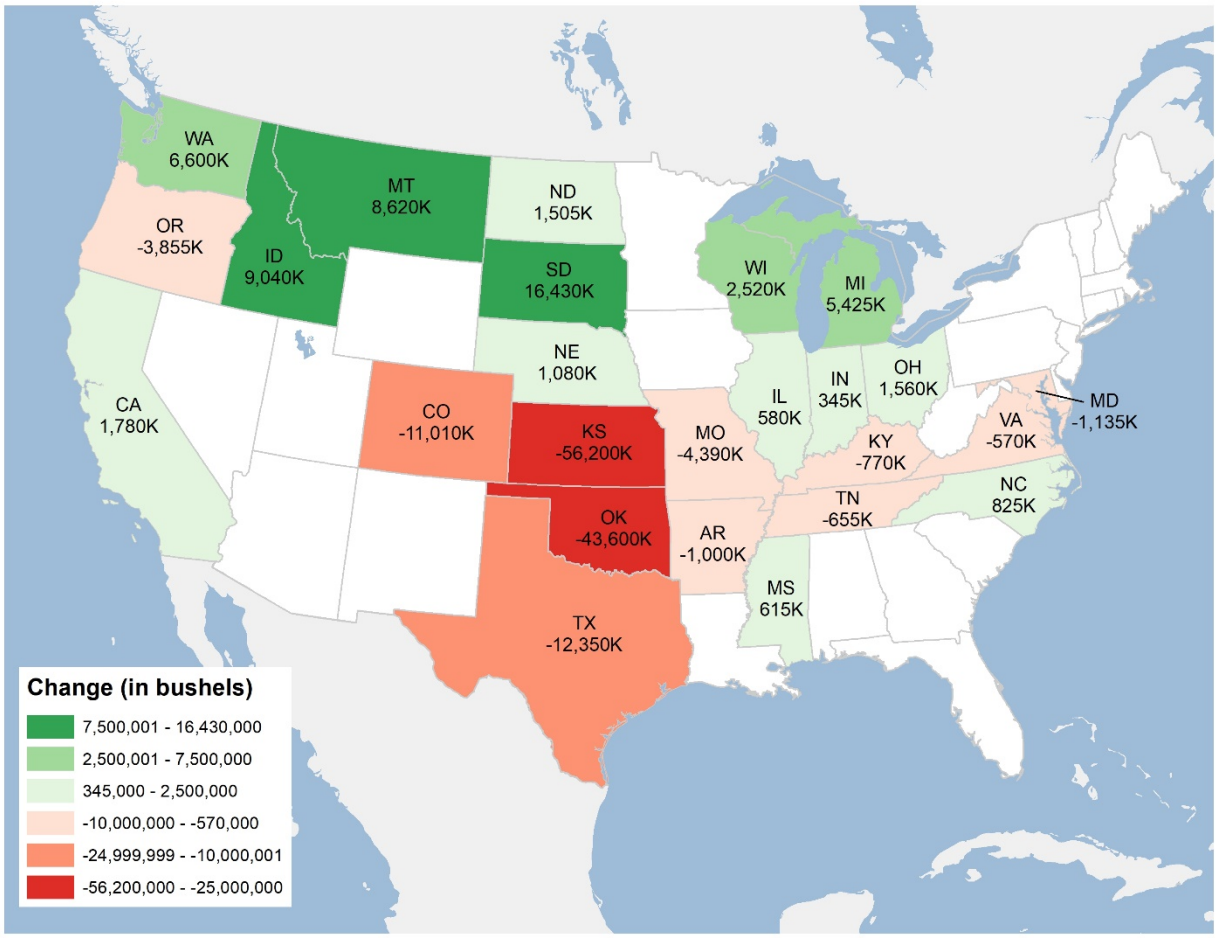
The August all-wheat production forecast is lowered less than 1 percent from the July forecast and is 8 percent higher than in 2017. The all-wheat yield is lowered 0.1 bushel per acre from the

Table 2: U.S. wheat production by class				
	2017/18	2018/19 (July)	2018/19 (August)	Year-to-year change
Wheat Class	------Million bushels------			--%--
Winter Wheat				
Hard red winter	750	657	661	-12
Soft red winter	292	303	292	~0
Winter white	227	232	236	+4
Spring Wheat				
Hard red spring	385	584	583	+51
Spring white	31	30	31	~0
Durum	55	75	73	+33
TOTAL	1740	1881	1877	+8
Source: USDA, National Agricultural Statistics Service, *Crop Production.*				

July forecast and up 1.1 bushels per acre from the 46.3 bushels per acre that farmers harvested in 2017. At 39.6 million acres, area harvested is projected slightly down (-150,000 acres) from the previous forecast while still above the 37.6 million acres harvested in 2017. The August *Crop Production* report indicated that **winter wheat** production is projected less than 1 percent below the July forecast and, at 1.19 billion bushels, is down about 6 percent from 2017. The all winter wheat yield projection is currently forecast at 47.9 bushels per acre, down only fractionally from July.

The 2018 winter wheat harvest is nearing completion, with USDA, NASS estimating that on August 6 an estimated 92 percent of the 2018 winter wheat crop had been harvested (based on 18 key reporting States). Total winter wheat harvested area is forecast at 24.8 million acres, down slightly from last month's NASS forecast and down about 2 percent from 2017. Map 1 provides a summary of changes in winter wheat production by State for 2018 vs. 2017.

Map 1: Change in U.S. winter wheat production, 2018 v. 2017



Source: USDA, National Agricultural Statistics Service QuickStats database.

Hard red winter (HRW) wheat production is up about 1 percent this month from the July forecast. Protein levels for the 2018 hard red winter wheat crop are much improved from the previous 2 years. Plains Grains, Inc. reports that average protein levels, at 12.5 percent based on 406 tested samples, are much improved from 2017 and compare to 11.4 percent for the 2017 season (based on 488 samples tested).

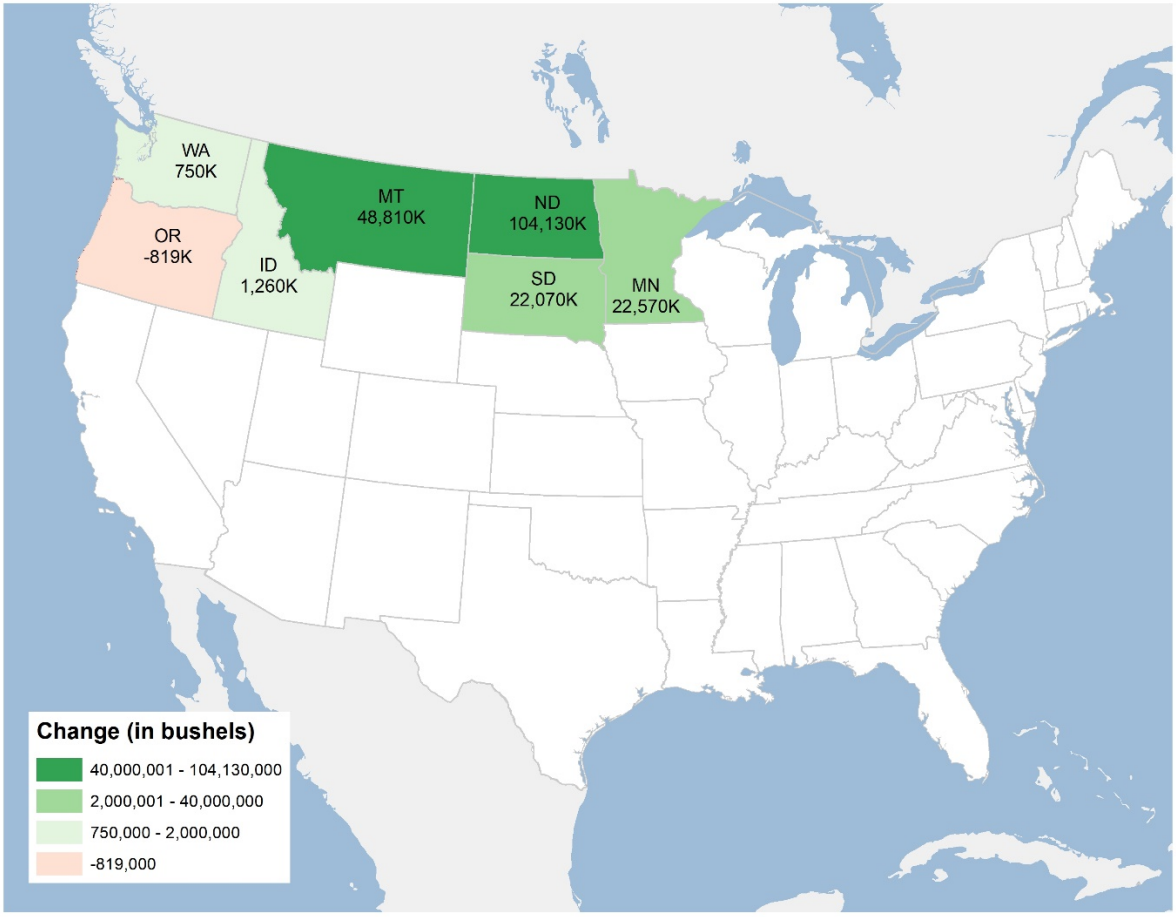
The August USDA, NASS forecast for **soft red winter** (SRW) wheat production was down 4 percent from the July forecast and down 11 million bushels from the 2017 production estimate on sharply lower yields. Aggregate **white wheat** production is forecast to rise slightly, up about 5 million bushels from 2017, exclusively on expanded production of **soft white winter** (SWW) wheat. Production of SWW is forecast to rise more than 8 million bushels (year-to-year) on greater harvested area in the key Pacific Northwest growing region.

2018	HRW	SRW	HWW	SWW
Planted area (million acres)	23.22	5.84	0.60	3.03
Harvested area (million acres)	16.86	4.53	0.53	2.89
Yield (bushels/acre)	38.7	69.59	40.73	72.39
Production (million bushels)	661.23	291.81	21.01	215.15

2017	HRW	SRW	HWW	SWW
Planted area (million acres)	23.42	5.73	0.58	2.94
Harvested area (million acres)	17.64	4.31	0.52	2.81
Yield (bushels/acre)	42.53	67.66	45.45	72.29
Production (million bushels)	750.33	292.15	23.72	203.22

After boosting 2018/19 **hard red spring** (HRS) yields to record levels last month, yields are trimmed slightly following a period of dryness in the Northern Plains, resulting in several production changes by State (map 2). Whereas drought conditions had largely abated earlier in the crop year, in this key production area, a lack of rain in recent weeks has downgraded the outlook for HRS yields.

Map 2: Change in U.S. other spring wheat production, 2018 v. 2017



Source: USDA, National Agricultural Statistics Service QuickStats database.

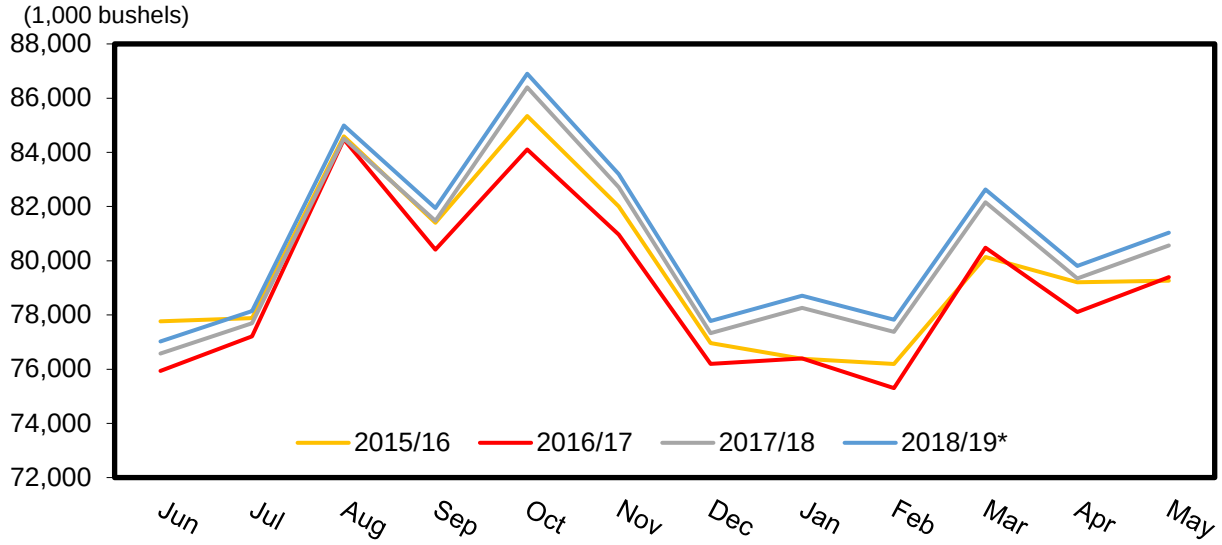
Boosted by record yield outlooks for other spring wheat in Idaho and Montana, the U.S. other spring wheat yield remains record-high and is up 6.6 bushel per acre from the 2017 estimate. The current other spring wheat forecast is the third-highest on record at 614 million bushels. The next objective survey of the spring wheat crop will be reported in the September 28 USDA, NASS *Small Grains Summary* report.

Durum wheat, which is largely grown in the same region where hard red spring wheat production is concentrated, likewise saw yields trimmed from July to August. At 39.9 bushels per acre, the 2018 durum yield forecast is 0.8 bushels below the July forecast but 14.2 bushels above last year's drought-affected yield. Area harvested for grain is unchanged from last month, and production for 2018 is forecast at 73.4 million bushels.

Wheat Food Use for 2018/19 Projected to Reach Record High

Since August 2017, monthly wheat food use has been tracking ahead of 2016/17 volumes. With the release of the August 1 USDA, NASS *Flour Milling Products* report, the full picture of food use for the 2017/18 marketing year was made clear. In December 2017, monthly U.S. wheat food use surged (figure 3).

Figure 3: Total monthly wheat food use, June-May: 2014/15-2018/19 1/



1/ 2018/19 is projected based on relative annual growth in total food use.
Source: USDA, Economic Research Service calculations based on USDA, National Agricultural Statistics Service data.

As real personal consumption expenditures on nondurable goods continued to rise through the final quarter of 2017 and into the first two quarters of 2018, monthly food use correspondingly remained higher than for the previous year, ultimately lifting the aggregate figure to 964.4 million bushels. Based on income and consumption forecasts from the U.S. Bureau of Economic

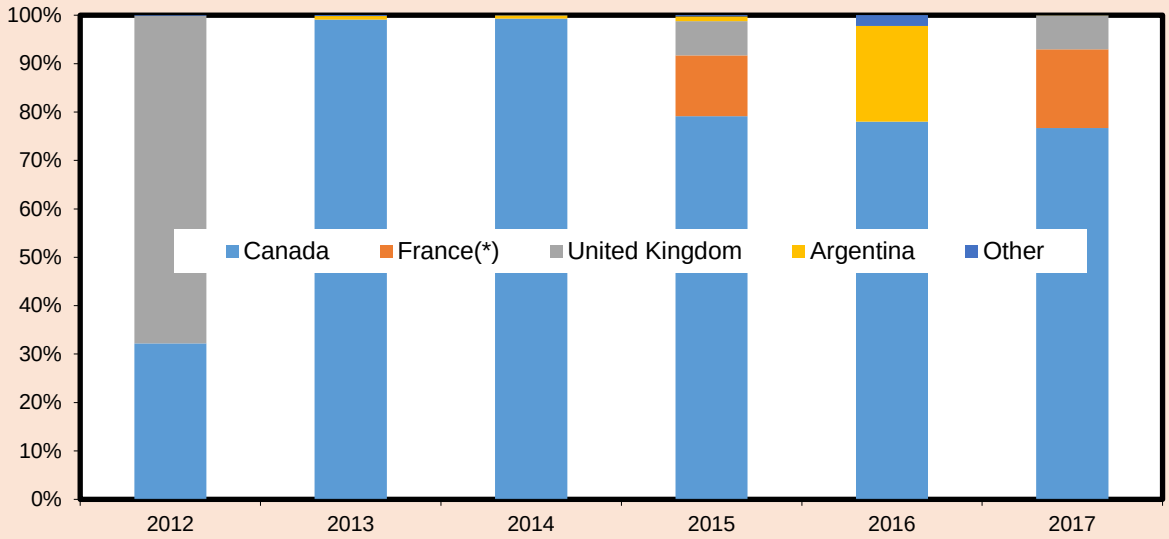
Analysis and expectations of continued population growth, the 2018/19 food use figure is adjusted upward by 5 million bushels to 970. If realized, this will be record-high food use, surpassing the 2017/18 record.

Domestic Feature: Review Leads to Redistribution for Single Import Code

The U.S. wheat import code 1001990096, "Wheat, except durum, not elsewhere specified," was introduced by the U.S. Census Bureau at the beginning of calendar year 2012. Since the inception of the code, the USDA, Economic Research Service has allocated 100 percent of 1001990096 ("96") designated wheat imports as soft red winter (SRW). The wheat by class balance sheet for 2011/12 began to reflect the allocation of the new code beginning in the third quarter of that marketing year.

In 2012, the majority of U.S. imports of wheat designated as "96" originated in the United Kingdom (68 percent) and Canada (32 percent) (figure 4). Based on historical production patterns, wheat imported from EU countries was generally assumed to be similar to U.S. SRW varieties. Winter wheat varieties, such as SRW, were also known to be cultivated in regions of Eastern Canada that were exporting wheat to the U.S. Together, these factors supported the decision to allocate the entirety of wheat imported to the U.S. under the new "96" code to SRW.

Figure 4: Share of U.S. 1001990096 ("96") wheat import by country since inception



Source: USDA, Foreign Agricultural Service, Global Agricultural Trade System database.

In 2018, after a review of U.S. wheat imports by code and by country it became evident that an update to the initial allocation rule was needed based on shifts in trade and production patterns. First, a larger share of wheat imported to the U.S. under code "96" has originated from Canada than in 2012. Canada supplied approximately one third of U.S. imports of "96" wheat in 2012

However, since that time, the Canadian share has averaged about 83 percent with a smaller portion of “96” imports originating from largely soft red winter wheat supplying countries (mainly EU).

After 2012, wheat exported to the U.S. from Canada has increasingly originated from the Prairie Provinces where spring wheat cultivation is concentrated. A larger share was previously exported from other regions of the country where winter wheat production is more common. More specifically, in 2017, approximately 90 percent of Canadian wheat exported to the United States under the six-digit (100199) wheat code (of which 1001990096 accounted for approximately 40 percent in 2016/17) was sourced from the leading spring wheat producing Prairie Provinces of Alberta, Saskatchewan, and Manitoba (table 3). With a growing share of Canadian wheat exports to the U.S. originating from these regions, there was a growing probability that “96” wheat entering the U.S. was predominantly hard red spring wheat and less likely soft red winter.

Table 3: Share of 100199 Canadian imports to the United States, by Province, 2012-17

Province	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
	---------percent----------					
Alberta	42.41	38.98	35.14	36.52	34.46	34.71
Saskatchewan	21.23	19.57	37.54	40.34	36.97	36.15
Manitoba	11.59	18.52	18.98	16.10	18.30	18.42
All Prairie Provinces	**75.23**	**77.07**	**91.66**	**92.96**	**89.73**	**89.28**
Ontario	1.48	1.46	7.37	6.06	8.58	9.19
Other	23.29	21.47	0.98	0.98	1.50	1.53

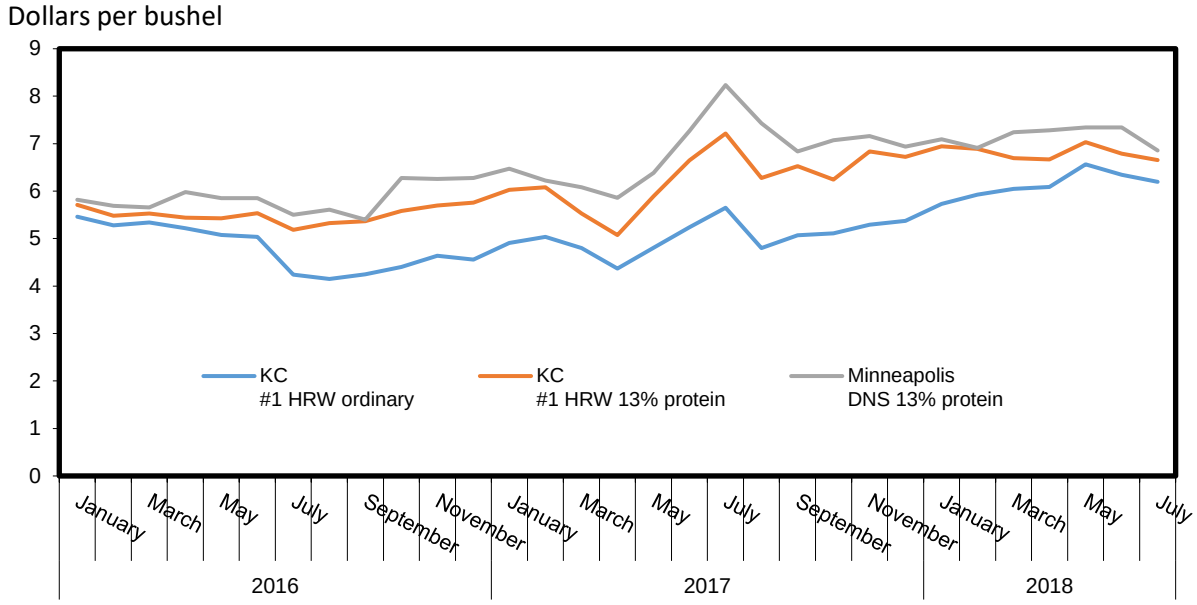
Source: Statistics Canada.

Subsequent to the dissolution of the Canadian Wheat Board, the cultivation of higher-yielding non-Canadian Western Red Spring (CWRS) varieties in the Prairies has expanded. This production shift further increases the likelihood that wheat sourced from the Prairie Provinces is spring wheat and is less likely to be identified under existing hard red spring wheat import codes that are more likely to be associated with CWRS varieties. In light of the totality of the changes in origin and composition of imports entering the United States under code 1001990096, the distribution across classes has been revised to 25 percent SRW and 75 percent hard red spring (HRS). The historical supply and utilization tables, going back to the 2011/12 marketing year, have been revised to reflect this redistribution and are available on the USDA, ERS Wheat Data landing page.

Strengthening Demand and Tightening Stocks Boost Prices by 10 Cents

The season-average farm price (SAFP) for all wheat is raised 10 cents this month to $5.10 per bushel on expectations of a tighter balance sheet and strengthening cash prices. While premiums for high protein spring wheat began to erode in June (figure 5), the evolving global wheat market, which has seen production prospects trimmed significantly, is expected to provide support for wheat prices through the balance of the marketing year, despite sharp declines for corn and sorghum prices. Wheat competes with corn and sorghum in domestic feed markets. However, wheat feed and residual is projected to account for only 5.5 percent of total use in the 2018/19 marketing year.

Figure 5: Kansas City (KC) hard red winter (HRW) and Minneapolis spring wheat prices 1/



1/ Minneapolis spring wheat is represented by the Dark Northern Spring (DNS) price series.
Source: USDA, Agricultural Marketing Service, Livestock and Grain Market News Portal.

Wheat By-Class, By-Quarter "Historical" Data Series Updated and Expanded

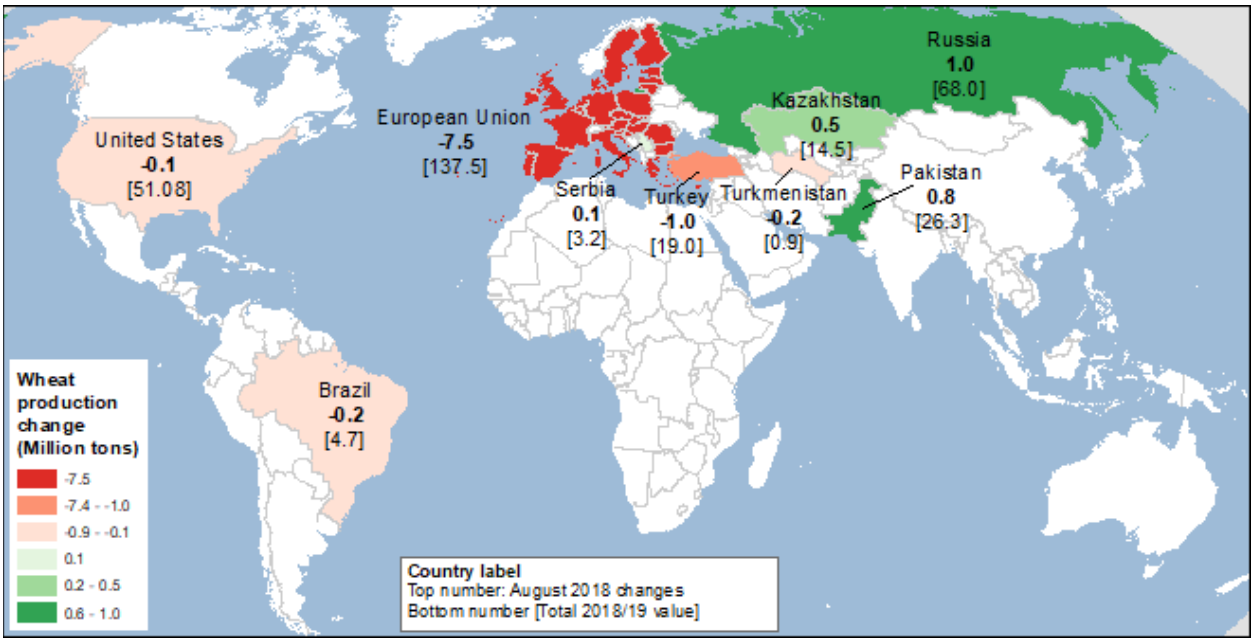
This month, the 2017/18 wheat by-class, by-quarter spreadsheet is available in the "Historical Data" section of the ERS Wheat Data landing page. In addition to the updated by-class, by-quarter spreadsheet for the most recent marketing year, balance sheets for several preceding decades are also available.

International Outlook

Persistent Dryness in Europe Saps Yields; Global Wheat Production Tumbles by 6.6 Million Tons.

For 2018/19, global wheat production is forecast down 6.6 million tons to 729.6 million on a sizable, 9-percent year-to-year decline in EU projected production. Losses in the EU are partially offset by gains in Russian production, raised 1.0 million tons this month on an improving outlook for the spring wheat crop in Eastern Russia (map 3). Global imports are reduced by slightly more than 1 million tons on rising prices attributable to further-constrained exportable supplies of wheat. A reflection of rationed demand, both global domestic feed consumption and food, seed, and industrial use categories are cut this month, although feed consumption is lowered by a relatively greater amount. Reduced supplies more than offset the effects of lower domestic and export use, trimming global 2018/19 ending stocks by nearly 2 million tons to 259.0 million. While ending stocks are down year-to-year, the current projection is still well above the 5-year average of 237.7 million tons.

Map 3 – Major global wheat production changes for 2018/19, August 2018



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

Table A - Wheat production changes at a glance (2018/19), August 2018						
	Country or region	Crop year	Production	Change from previous month[1]	YoY[2] change	Comments
			Million tons			
↓	**World**	*Various*	**729.6**	**-6.6**	**-28.4**	
↓	**Foreign**	*Various*	**678.6**	**-6.5**	**-32.1**	EU[3] and Turkey drive down projected wheat output for foreign countries in 2018/19, while increases in Russia, Pakistan, and Kazakhstan are partly offsetting.
↑	**United States**	*June-May*	**51.1**	**-0.1**	**3.7**	See section on U.S. domestic wheat.
↓	**EU[3]**	*July-June*	**137.5**	**-7.5**	**-14.2**	Heat and dryness in the northern European countries spread in June from west to east: from the UK through Netherlands, Germany, and Poland to the three Baltic countries and Sweden, with very low precipitation and high temperatures. In contrast, lingering wetness in south eastern Europe continues to impact the wheat crop that is being harvested. In France, hot and dry weather harmed wheat yields during the reproductive period, while following heavy rains led to infestations that added to the damage. Partly offsetting these reductions is increased wheat output in Spain, where abundant moisture benefited all crops.
↓	**Turkey**	*June-May*	**19.0**	**-1.0**	**-2.0**	Wheat yields were lower than anticipated due to heat and dryness throughout the wheat reproductive period.
↑	**Russia**	*July-June*	**68.0**	**+1.0**	**-17.0**	Spring wheat, which is growing in the eastern regions of the country, from Volga district to Ural to Siberia, is going through its reproductive period approaching flowering. Weather has been favorable, especially in Siberia, and VHI (Vegetation Health Index) maps as well as the NDVI (Normalized Difference Vegetation Index) support an increase in spring wheat yields. The winter wheat forecast is unchanged this month with a projected 15 percent drop in y/y yields that is based on harvest reports. Starting June 2018, the Production, Supply and Distribution online database will be publishing data on spring and winter wheat in Russia, with the series going back to 2000 (see the downloadable data tab on the PS&D website).
↑	**Pakistan**	*May-Apr*	**26.3**	**0.8**	**-0.4**	Growing conditions were generally good, and the effect of unseasonal rains during harvest appears to be smaller than expected.
↑	**Kazakhstan**	*Sep-Aug*	**14.5**	**+0.5**	**-0.3**	The major wheat areas in Kazakhstan adjacent to the Russian Siberian district have also been enjoying excellent weather and ample precipitation, which is expected to push yields higher.

[1] Change from previous month's forecast. Changes of less than 0.2 million tons are also made for several countries; see map 3. [2] YoY: year-over-year changes. [3] EU - European Union.

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

For the second month in a row, the largest production drop is for the **European Union (EU)**, cut a further 7.5 million tons to 137.5 million. The deepening drought over large sections of Europe, and particularly northern Europe, have wilted prospects for the local wheat crop. The USDA, Office of the Chief Economist (OCE) *Crop Weather Bulletin* reports that drought in the EU is most intense in locales immediately adjacent to the North Sea where, over the last 90 days, rainfall has totaled just 25 to 50 percent of normal levels. To support planting of the 2019 winter wheat and rapeseed crops, more moisture will soon be needed.

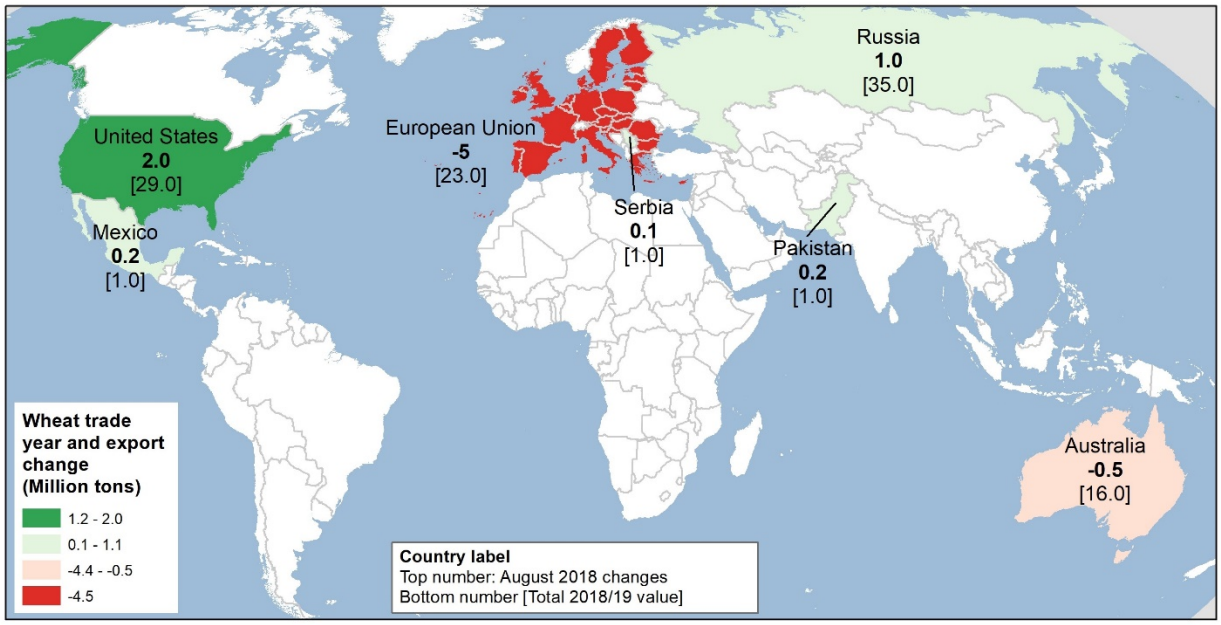
Across the **FSU** (former Soviet Union) region, cooler weather and scattered showers have benefited local grain crops, including spring wheat. In **Kazakhstan**, widespread showers have improved soil moisture levels and contribute to the 500,000-metric-ton increase in forecast production from the July projection. For **Russia**, despite drier-than-normal conditions in the Siberia district, timely rains in the central region of the country have aided spring wheat entering the reproductive phase of development and lift the production outlook by 1 million tons to 68.0 million.

In **Australia**, soaking rains have recently fallen on the Western Australia wheat belt, boosting prospects for the regional winter wheat crop. Rain showers spread to South Australia, helping to improve soil moisture levels before scattering over Victoria and southern New South Wales, where yield prospects for winter crops are generally favorable. Elsewhere, in Queensland and northern New South Wales, minimal and scattered rain showers did little to revive the drought-stressed wheat crop for which yield prospects have deteriorated. On the whole, recent weather events in Australia and prospects for the next 90 days provide support for the current forecast of 22 million tons, unchanged this month from the July projection.

Reduced Global Production and Stocks Constrains Global Exports

With global wheat production down nearly 30 million tons from 2017/18 and global stocks down more than 14 million tons, competitors are projected to have reduced exportable supplies to ship in the current marketing year (map 4). On a sharp reduction in production, **EU** exports are lowered 4.5 million tons to 23.0 million, the lowest level since 2012/13, when trade year exports totaled just 22.7 million tons on production that was 3.5 million tons smaller than the current EU production projection. Exports from **Australia** are trimmed 0.5 million tons to 16.0 million on higher prices and a lack of competitiveness in key export markets. Increased domestic feeding and demand for wheat in feed rations are also expected to pull exportable supplies out of export channels and keep supplies in use domestically.

Map 4 – Major global wheat export changes for 2018/19, August 2018



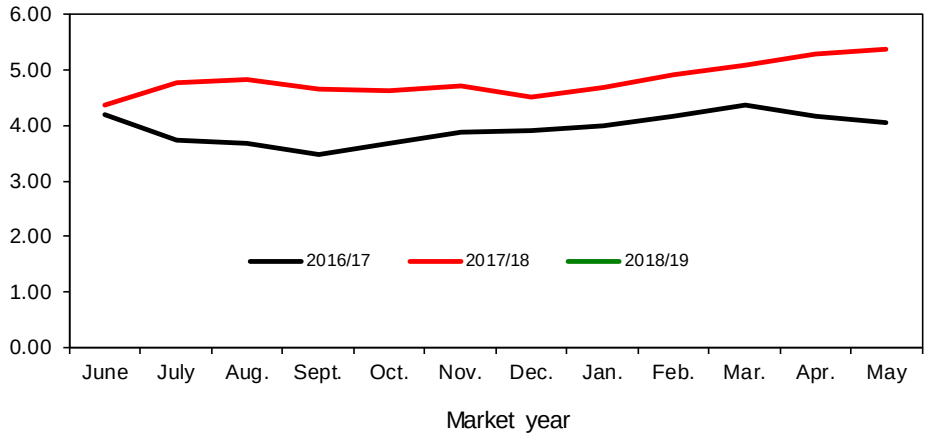
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.

A larger crop in **Pakistan** boosts the associated export forecast by 0.2 million tons. Exports for Mexico are raised slightly and remain below 2017/18, while the outlook for 2018/19 Pakistan exports is on par with the 2017/18 figure. While production for many foreign competitors was reduced this month and cut into export projections, the very slight reduction in **U.S**. production combines with reports of excellent winter wheat quality and helps to boost U.S. export prospects for 2018/19 by 2.0 million tons.

For additional details on global wheat supply and use, please see the USDA, Foreign Agricultural Service *Grains: World Markets and Trade* report.

Figure 1
All wheat average prices received by farmers

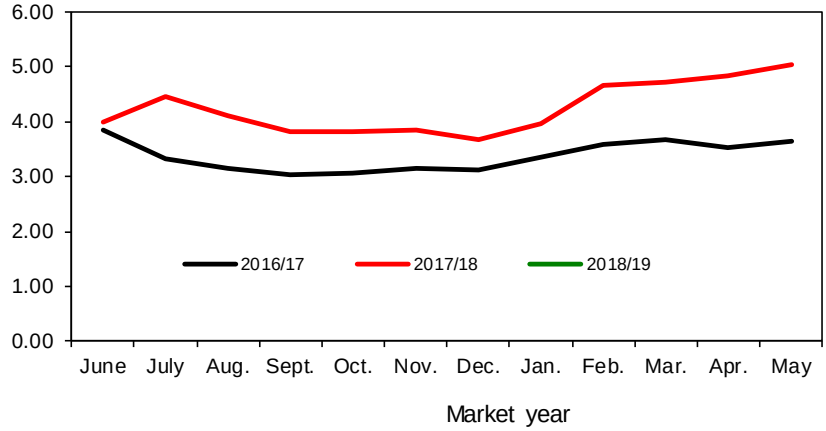
Dollars per bushel



Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Figure 2
Hard red winter wheat average prices received by farmers

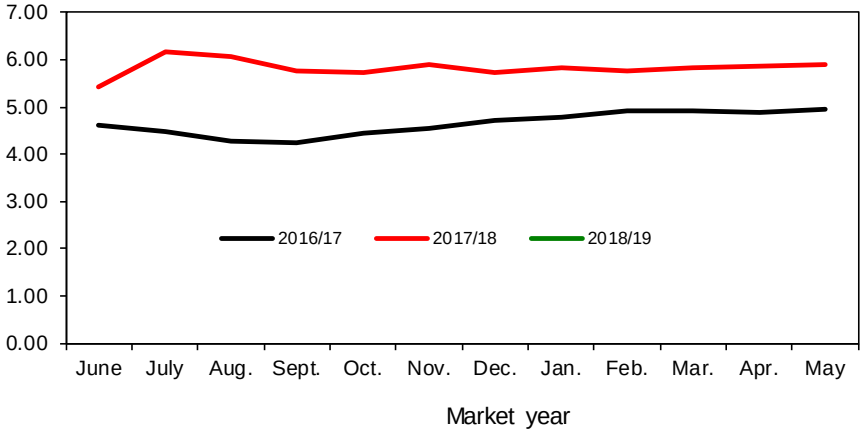
Dollars per bushel



Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

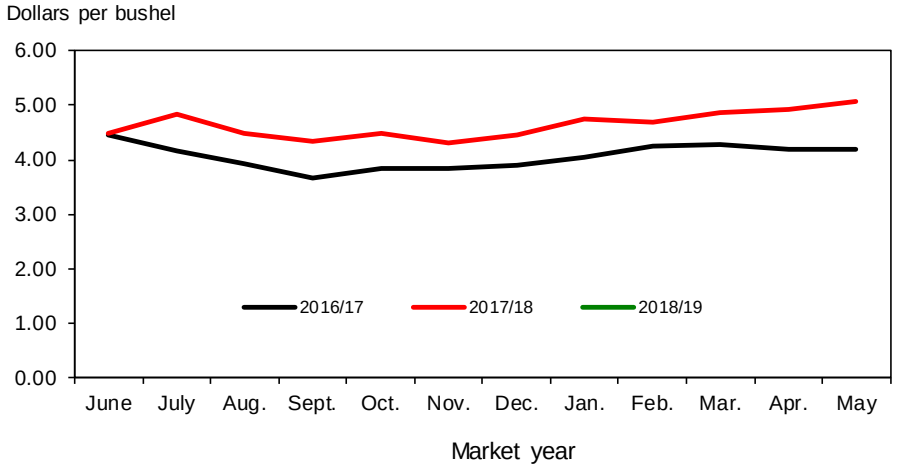
Figure 3
Hard red spring wheat average prices received by farmers

Dollars per bushel



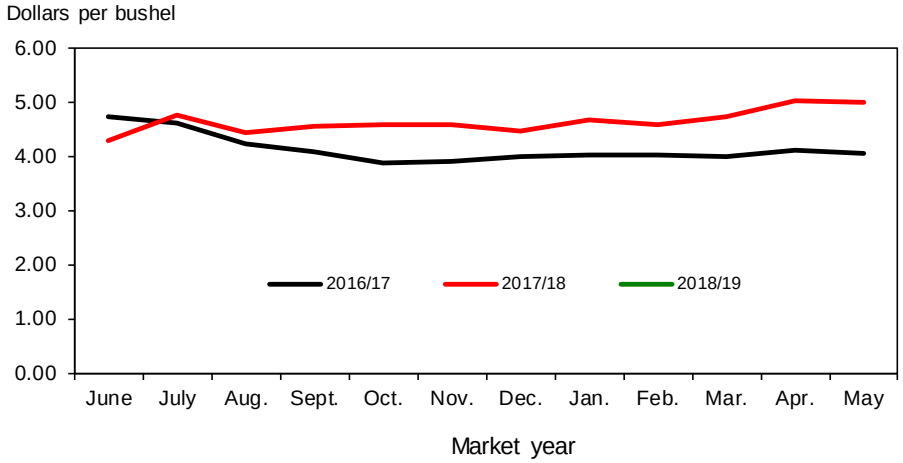
Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Figure 4
Soft red winter wheat average prices received by farmers



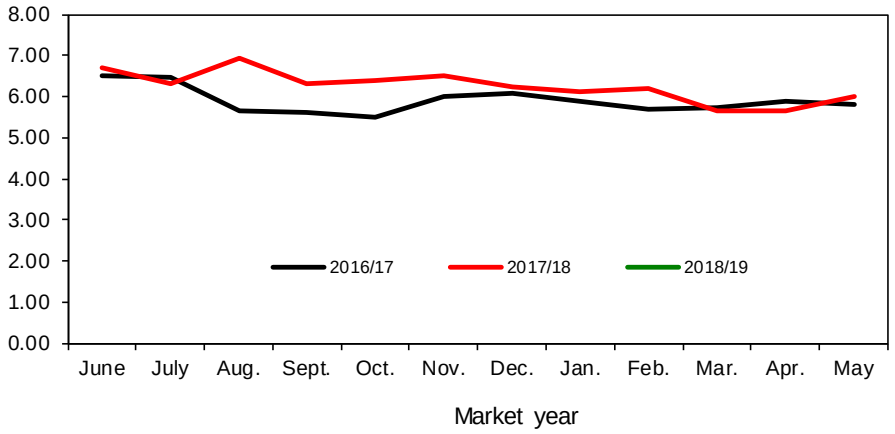
Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Figure 5
Soft white wheat average prices received by farmers



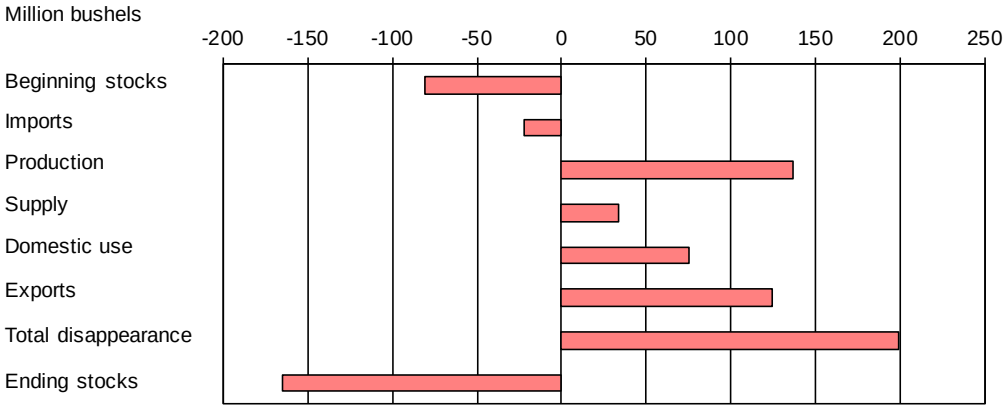
Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Figure 6
Durum wheat average prices received by farmers



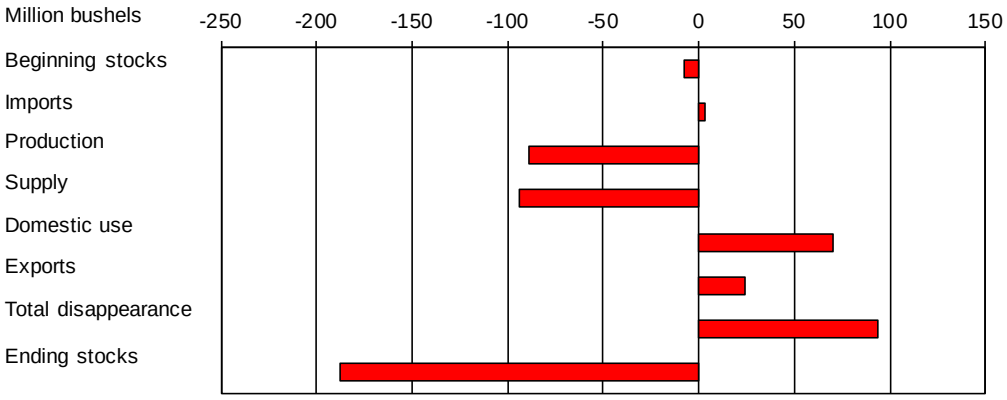
Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Figure 7
All wheat: U.S. supply and disappearance change from prior market year



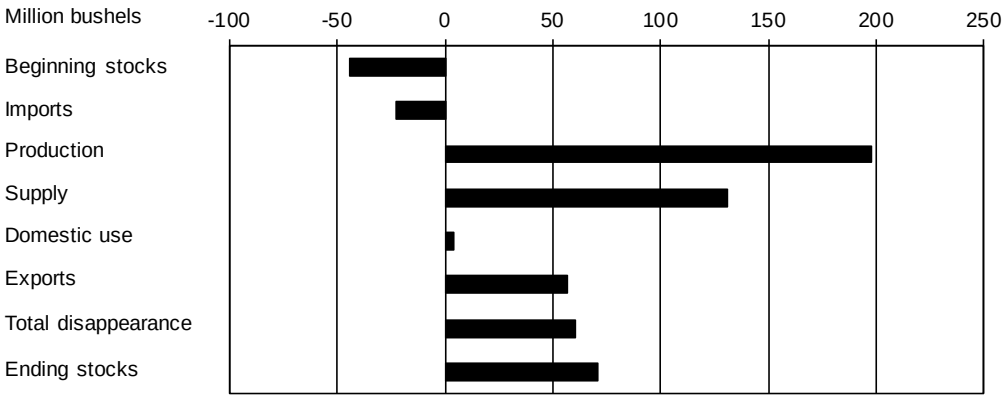
Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Figure 8
Hard red winter wheat: U.S. supply and disappearance change from prior market year



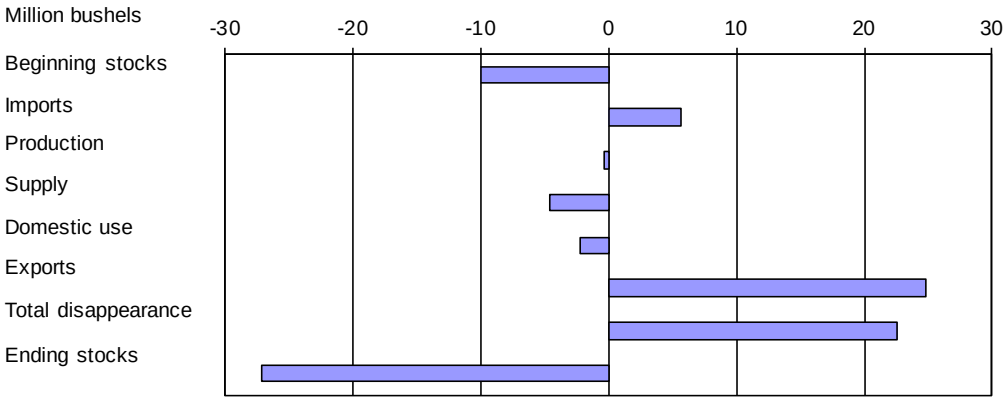
Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Figure 9
Hard red spring wheat: U.S. supply and disappearance change from prior market year



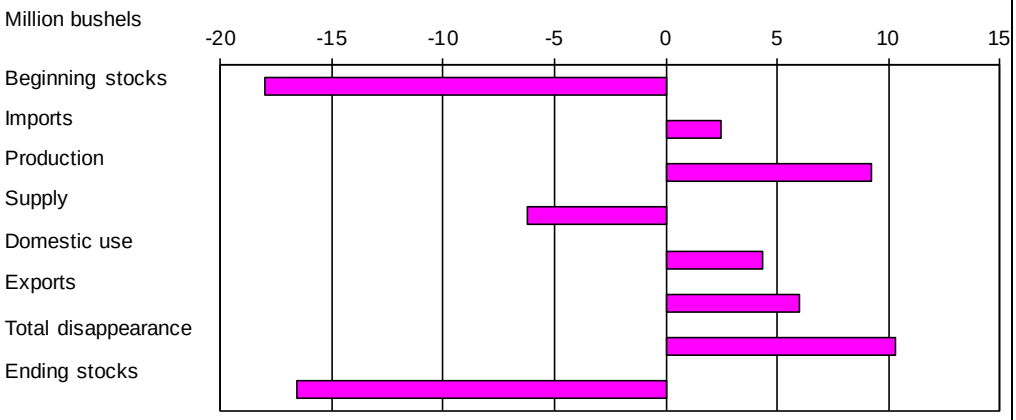
Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Figure 10
Soft red winter wheat: U.S. supply and disappearance change from prior market year



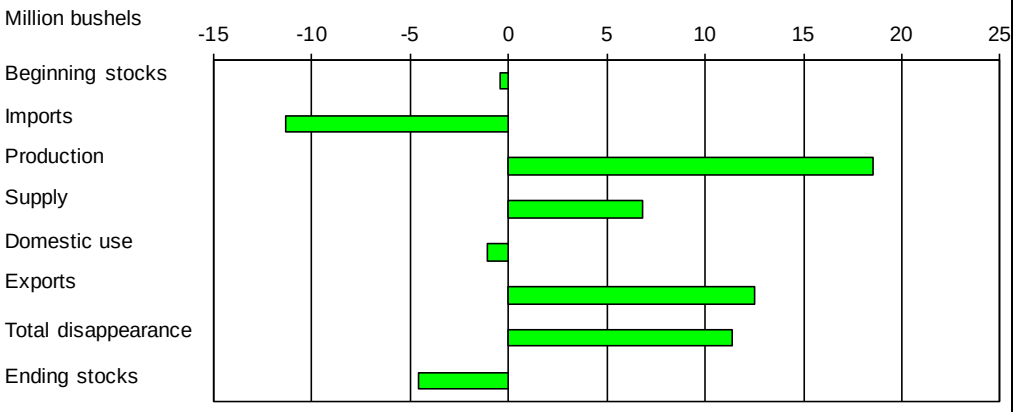
Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Figure 11
White wheat: U.S. supply and disappearance change from prior market year



Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Figure 12
Durum: U.S. supply and disappearance change from prior market year



Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates.*

Table 1--Wheat: U.S. market year supply and disappearance, 8/14/2018

Item and unit		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Area:								
Planted	Million acres	55.3	56.2	56.8	55.0	50.1	46.0	47.8
Harvested	Million acres	48.8	45.3	46.4	47.3	43.9	37.6	39.6
Yield	Bushels per acre	46.2	47.1	43.7	43.6	52.7	46.3	47.4
Supply:								
Beginning stocks	Million bushels	742.6	717.9	590.3	752.4	975.6	1,180.6	1,100.3
Production	Million bushels	2,252.3	2,135.0	2,026.3	2,061.9	2,308.7	1,740.6	1,876.8
Imports [1]	Million bushels	124.3	172.5	151.2	112.8	118.0	157.4	135.0
Total supply	Million bushels	3,119.2	3,025.3	2,767.8	2,927.1	3,402.4	3,078.6	3,112.1
Disappearance:								
Food use	Million bushels	950.8	955.1	958.3	957.1	949.0	964.4	970.0
Seed use	Million bushels	73.1	75.6	79.4	67.2	61.3	64.4	62.0
Feed and residual use	Million bushels	365.3	228.2	113.4	149.5	160.6	48.4	120.0
Total domestic use	Million bushels	1,389.3	1,258.8	1,151.1	1,173.8	1,170.8	1,077.2	1,152.0
Exports [1]	Million bushels	1,012.1	1,176.2	864.3	777.8	1,050.9	901.1	1,025.0
Total disappearance	Million bushels	2,401.4	2,435.1	2,015.4	1,951.5	2,221.8	1,978.3	2,177.0
Ending stocks	Million bushels	717.9	590.3	752.4	975.6	1,180.6	1,100.3	935.1
CCC inventory	Million bushels					.0		
Stocks-to-use ratio		29.9	24.2	37.3	50.0	53.1	55.6	43.0
Loan rate	Dollars per bushel	2.94	2.94	2.94	2.94	2.94	2.94	2.94
Contract/direct payment rate	Dollars per bushel	73.70	72.80	56.40	56.40	56.50	56.50	56.50
Farm price [2]	Dollars per bushel	7.77	6.87	5.99	4.89	3.89	4.73	4.60-5.60
Market value of production	Million dollars	17,383	14,604	11,915	10,203	8,981	8,233	9,572

Latest market year is projected; previous market year is estimated. Totals may not add due to rounding.
[1] Includes flour and selected other products expressed in grain-equivalent bushels.
[2] U.S. season-average price based on monthly prices weighted by monthly marketings. Prices do not include an allowance for loans outstanding and government purchases.
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Date run: 8/14/2018

Table 2--Wheat by class: U.S. market year supply and disappearance, 8/14/2018

Market year, item, and unit			All wheat	Hard red winter[1]	Hard red spring[1]	Soft red winter[1]	White[1]	Durum
2017/18	Area:							
	Planted acreage	Million acres	46.01	23.43	10.50	5.73	4.05	2.31
	Harvested acreage	Million acres	37.59	17.64	9.67	4.32	3.82	2.14
	Yield	Bushels per acre	46.31	42.54	39.82	67.66	67.53	25.71
	Supply:							
	Beginning stocks	Million bushels	1,180.60	589.30	235.00	215.00	105.00	36.30
	Production	Million bushels	1,740.58	750.33	385.01	292.16	258.18	54.91
	Imports[2]	Million bushels	157.43	6.75	87.59	4.28	7.50	51.31
	Total supply	Million bushels	3,078.61	1,346.39	707.59	511.44	370.68	142.52
	Disappearance:							
	Food use	Million bushels	964.39	391.70	254.00	154.00	85.00	79.69
	Seed use	Million bushels	64.44	25.98	18.30	11.54	5.63	2.99
	Feed and residual use	Million bushels	48.40	-23.80	15.98	50.73	-.96	6.45
	Total domestic use	Million bushels	1,077.23	393.89	288.28	216.27	89.67	89.12
	Exports[2]	Million bushels	901.10	371.11	228.31	90.17	194.01	17.51
	Total disappearance	Million bushels	1,978.33	765.00	516.59	306.44	283.68	106.63
	Ending stocks	Million bushels	1,100.29	581.39	191.00	205.00	87.00	35.90
2018/19	Area:							
	Planted acreage	Million acres	47.82	23.23	12.71	5.89	4.11	1.89
	Harvested acreage	Million acres	39.56	16.86	12.43	4.53	3.90	1.84
	Yield	Bushels per acre	47.45	39.22	46.91	64.36	68.62	39.89
	Supply:							
	Beginning stocks	Million bushels	1,100.29	581.39	191.00	205.00	87.00	35.90
	Production	Million bushels	1,876.79	661.23	582.88	291.81	267.43	73.43
	Imports[2]	Million bushels	135.00	10.00	65.00	10.00	10.00	40.00
	Total supply	Million bushels	3,112.07	1,252.62	838.88	506.81	364.43	149.33
	Disappearance:							
	Food use	Million bushels	970.00	392.00	260.00	153.00	85.00	80.00
	Seed use	Million bushels	62.00	27.00	17.00	11.00	4.00	3.00
	Feed and residual use	Million bushels	120.00	45.00	15.00	50.00	5.00	5.00
	Total domestic use	Million bushels	1,152.00	464.00	292.00	214.00	94.00	88.00
	Exports[2]	Million bushels	1,025.00	395.00	285.00	115.00	200.00	30.00
	Total disappearance	Million bushels	2,177.00	859.00	577.00	329.00	294.00	118.00
	Ending stocks	Million bushels	935.07	393.62	261.88	177.81	70.43	31.33

Latest market year is projected; previous market year is estimated. Totals may not add due to rounding.
[1] Area and yield data are unpublished National Agricultural Statistics Service data. Supply and disappearance data, except production, are approximations.
[2] Includes flour and selected other products expressed in grain-equivalent bushels.
Source: USDA, National Agricultural Statistics Service, Crop Production and unpublished data; and USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Date run: 8/14/2018

Table 3--Wheat: U.S. quarterly supply and disappearance (million bushels), 8/14/2018

Market year	and quarter	Production	Imports[1]	Total supply	Food use	Seed use	Feed and residual use	Exports[1]	Ending stocks
2010/11	Jun-Aug	2,163	27	3,166	235	1	215	265	2,450
	Sep-Nov		24	2,473	242	51	-63	311	1,933
	Dec-Feb		23	1,956	221	1		308	1,425
	Mar-May		22	1,448	228	16	-67	407	863
	Mkt. year	2,163	97	3,236	926	71	85	1,291	863
2011/12	Jun-Aug	1,993	21	2,877	230	5	201	295	2,147
	Sep-Nov		32	2,179	244	51	-16	238	1,663
	Dec-Feb		30	1,693	231	1	44	217	1,199
	Mar-May		30	1,229	236	19	-70	301	743
	Mkt. year	1,993	113	2,969	941	76	159	1,051	743
2012/13	Jun-Aug	2,252	26	3,020	238	1	403	264	2,115
	Sep-Nov		33	2,148	247	55	-22	198	1,671
	Dec-Feb		35	1,705	229	1	5	235	1,235
	Mar-May		31	1,266	238	15	-20	315	718
	Mkt. year	2,252	124	3,119	951	73	365	1,012	718
2013/14	Jun-Aug	2,135	36	2,889	235	4	422	358	1,870
	Sep-Nov		48	1,918	249	53	-168	309	1,475
	Dec-Feb		42	1,517	231	2	-1	228	1,057
	Mar-May		47	1,104	240	17	-25	282	590
	Mkt. year	2,135	172	3,025	955	76	228	1,176	590
2014/15	Jun-Aug	2,026	44	2,661	239	6	256	253	1,907
	Sep-Nov		35	1,942	248	49	-93	208	1,530
	Dec-Feb		37	1,566	231	2	8	185	1,140
	Mar-May		36	1,176	240	22	-58	219	752
	Mkt. year	2,026	151	2,768	958	79	113	864	752
2015/16	Jun-Aug	2,062	27	2,841	240	1	298	205	2,097
	Sep-Nov		27	2,124	249	44	-107	192	1,746
	Dec-Feb		34	1,780	230	2	2	175	1,372
	Mar-May		25	1,397	239	20	-43	205	976
	Mkt. year	2,062	113	2,927	957	67	149	778	976
2016/17	Jun-Aug	2,309	33	3,317	238	1	266	268	2,545
	Sep-Nov		29	2,575	245	41	-30	239	2,079
	Dec-Feb		25	2,104	228	1	-13	229	1,659
	Mar-May		31	1,690	238	19	-62	315	1,181
	Mkt. year	2,309	118	3,402	949	61	161	1,051	1,181
2017/18	Jun-Aug	1,741	42	2,963	239	2	164	292	2,266
	Sep-Nov		36	2,302	251	41	-56	194	1,873
	Dec-Feb		37	1,911	233	1	-14	195	1,495
	Mar-May		42	1,537	242	20	-46	221	1,100
	Mkt. year	1,741	157	3,079	964	64	48	901	1,100
2018/19	Mkt. year	1,877	135	3,112	970	62	120	1,025	935

Latest market year is projected; previous market year is estimated. Totals may not add due to rounding.
[1] Includes flour and selected other products expressed in grain-equivalent bushels.
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates and supporting materials.

Date run: 8/14/2018

Table 4--Wheat: Monthly food disappearance estimates (1,000 grain-equivalent bushels), 8/14/2018

Mkt year and month 1/		Wheat ground for flour	+	Food imports[2]	+	Nonmilled food use[3]	-	Food exports[2]	=	Food use[4]
2016/17	Jun	73,149		2,933		2,000		2,150		75,932
	Jul	74,237		2,637		2,000		1,666		77,208
	Aug	81,136		3,198		2,000		1,855		84,479
	Sep	78,018		2,533		2,000		2,142		80,409
	Oct	81,469		2,966		2,000		2,325		84,109
	Nov	77,978		3,189		2,000		2,201		80,967
	Dec	73,195		2,860		2,000		1,862		76,192
	Jan	73,561		2,858		2,000		2,026		76,393
	Feb	72,977		2,296		2,000		1,974		75,299
	Mar	77,425		2,830		2,000		1,803		80,452
	Apr	74,812		2,822		2,000		1,548		78,085
	May	76,492		2,809		2,000		1,973		79,328
2017/18	Jun	73,183		3,242		2,000		1,849		76,576
	Jul	74,520		2,964		2,000		1,794		77,689
	Aug	81,444		3,148		2,000		2,088		84,505
	Sep	78,315		2,620		2,000		1,462		81,473
	Oct	82,325		3,239		2,000		1,167		86,397
	Nov	78,798		3,218		2,000		1,301		82,714
	Dec	73,964		2,934		2,000		1,569		77,329
	Jan	74,607		3,075		2,000		1,423		78,259
	Feb	74,014		2,948		2,000		1,589		77,374
	Mar	78,526		3,197		2,000		1,571		82,152
	Apr	75,525		3,259		2,000		1,432		79,351
	May	77,221		3,087		2,000		1,742		80,566
2018/19	Jun	73,881		2,921		2,000		1,689		77,113

[1] Current year is preliminary. Previous year is preliminary through August of current year, estimated afterwards.
[2] Food imports and exports used to calculate total food use. Includes all categories of wheat flour, semolina, bulgur, and couscous and selected categories of pasta.
[3] Wheat prepared for food use by processes other than milling.
[4]Estimated food use equals wheat ground for flour plus food imports plus nonmilled food use minus food exports.
Source: Data through the 2nd quarter of 2011 was calculated using data from U.S. Department of Commerce, Bureau of the Census' Flour Milling Products (MQ311A) and U.S. Department of Commerce, Bureau of Economic Analysis' Foreign Trade Statistics. Subsequent flour milling calculations are based on data from the North American Millers Association.

Date run: 8/14/2018

Table 5--Wheat: National average price received by farmers (dollars per bushel) , 8/14/2018

Month	All wheat		Winter		Durum		Other spring	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
June	4.37	5.17	4.11	5.05	6.69	6.33	5.35	5.66
July	4.77		4.56		6.30		6.09	
August	4.83		4.27		6.93		5.87	
September	4.65		4.11		6.32		5.62	
October	4.64		4.17		6.41		5.55	
November	4.73		4.07		6.53		5.78	
December	4.51		3.91		6.25		5.61	
January	4.69		4.19		6.12		5.72	
February	4.92		4.63		6.20		5.65	
March	5.10		4.73		5.67		5.74	
April	5.29		4.90		5.66		5.78	
May	5.39		5.05		6.02		5.84	

Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

Table 6--Wheat: National average prices received by farmers by class (dollars per bushel), 8/14/2018

Month	Hard red winter		Soft red winter		Hard red spring		White	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
June	3.99	5.12	4.50	4.80	5.41	5.71	4.30	4.89
July	4.45		4.84		6.16		4.77	
August	4.10		4.49		6.07		4.43	
September	3.82		4.33		5.75		4.55	
October	3.82		4.48		5.73		4.59	
November	3.84		4.31		5.89		4.58	
December	3.66		4.45		5.72		4.47	
January	3.95		4.74		5.84		4.68	
February	4.65		4.68		5.76		4.58	
March	4.71		4.86		5.84		4.74	
April	4.83		4.92		5.85		5.02	
May	5.05		5.06		5.90		5.00	

Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

Date run: 8/14/2018

Table 7--Wheat: Average cash grain bids at principal markets, 8/14/2018

Month	No. 1 hard red winter (ordinary protein) Kansas City, MO (dollars per bushel)		No. 1 hard red winter (13% protein) Kansas City, MO (dollars per bushel)		No. 1 hard red winter (ordinary protein) Portland, OR (dollars per bushel)		No. 1 hard red winter (ordinary protein) Texas Gulf, TX [1] (dollars per metric ton)	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
June	5.24	6.35	6.65	6.79	4.53	5.58	189.60	213.85
July	5.65	6.20	7.22	6.66	5.12	5.24	203.74	214.58
August	4.80	--	6.28	--	4.22	--	171.41	--
September	5.07	--	6.52	--	4.81	--	178.76	--
October	5.11	--	6.24	--	5.03	--	175.82	--
November	5.30	--	6.84	--	4.96	--	179.49	--
December	5.38	--	6.72	--	4.84	--	183.90	--
January	5.73	--	6.94	--	5.03	--	192.17	--
February	5.93	--	6.89	--	5.41	--	--	--
March	6.05	--	6.70	--	5.52	--	--	--
April	6.09	--	6.67	--	5.64	--	213.48	--
May	6.56	--	7.03	--	5.93	--	--	--

	No. 1 dark northern spring (13% protein) Chicago, IL (dollars per bushel)		No. 1 dark northern spring (14% protein) Chicago, IL (dollars per bushel)		No. 1 dark northern spring (14% protein) Portland, OR (dollars per bushel)		No. 1 hard amber durum Minneapolis, MN (dollars per bushel)	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
June	--	--	--	--	7.50	6.98	--	--
July	--	--	--	--	8.77	6.58	--	--
August	--	--	--	--	7.74	--	--	--
September	--	--	--	--	7.40	--	--	--
October	--	--	--	--	7.39	--	--	--
November	--	--	--	--	7.52	--	--	--
December	--	--	--	--	7.38	--	--	--
January	--	--	--	--	7.42	--	--	--
February	--	--	--	--	7.29	--	--	--
March	--	--	--	--	7.40	--	--	--
April	--	--	--	--	7.06	--	--	--
May	--	--	--	--	7.51	--	--	--

	No. 2 soft red winter St. Louis, MO (dollars per bushel)		No. 2 soft red winter Chicago, IL (dollars per bushel)		No. 2 soft red winter Toledo, OH (dollars per bushel)		No. 1 soft white Portland, OR (dollars per bushel)	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
June	4.66	5.16	4.41	4.92	4.44	5.15	4.91	5.92
July	5.15	5.21	4.96	4.98	4.94	5.20	5.40	5.88
August	4.31	--	4.12	--	4.20	--	5.13	--
September	4.30	--	4.23	--	4.27	--	5.19	--
October	4.16	--	4.22	--	4.24	--	5.30	--
November	4.34	--	4.13	--	4.18	--	5.26	--
December	4.28	--	4.12	--	4.04	--	5.22	--
January	4.38	--	4.27	--	4.22	--	5.30	--
February	4.65	--	4.55	--	4.54	--	5.39	--
March	4.76	--	4.69	--	4.75	--	5.64	--
April	4.75	--	4.74	--	4.85	--	5.63	--
May	5.19	--	5.08	--	5.24	--	5.79	--

-- = Not available or no quote.
[1] Free on board.
Source: USDA, Agricultural Marketing Service, State Grain Reports.

Date run: 8/14/2018

Table 8--Wheat: U.S. exports and imports for last 6 months (1,000 bushels), 8/14/2018

Item		Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018
Exports	All wheat grain	65,821	51,423	78,069	71,212	66,391	56,270
	All wheat flour[1]	964	1,094	1,157	1,088	1,360	1,365
	All wheat products[2]	473	523	456	372	401	370
	Total all wheat	67,258	53,040	79,682	72,673	68,151	58,006
Imports	All wheat grain	9,775	9,137	10,243	11,567	10,584	11,425
	All wheat flour[1]	1,446	1,301	1,547	1,454	1,429	1,285
	All wheat products[2]	1,680	1,657	1,676	1,828	1,713	1,679
	Total all wheat	12,901	12,095	13,466	14,848	13,726	14,390

Totals may not add due to rounding.
[1] Expressed in grain-equivalent bushels. Includes meal, groats, and durum.
[2] Expressed in grain-equivalent bushels. Includes bulgur, couscous, and selected categories of pasta.
Source: U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics; and Economic Research Service calculations using Census trade statistics.

Date run: 8/14/2018

Suggested Citation

Bond, Jennifer K., and Olga Liefert. *Wheat Outlook*, WHS-18h, U.S. Department of Agriculture, Economic Research Service, August 14, 2018.

Contacts & Additional Information

Contacts	Phone	E-mail
Jennifer K Bond, (coordinator, domestic)	(202) 694-5326	jkbond@ers.usda.gov
Olga Liefert, (international)	(202) 694-5326	oliefert@ers.usda.gov

Subscribe to ERS e-mail notification service at https://www **Telephone**.ers.usda.gov/subscribe-to-ers-e-newletters/ to receive timely notification of newsletter availability.

Data

Tables from the *Wheat Yearbook* are available in the Wheat Data Topics at https://www.ers.usda.gov/data-products/wheat-data/. They contain the latest data and historical information on the production, use, prices, imports, and exports of sugar and sweeteners.

Related Websites

Wheat Outlook https://www.ers.usda.gov/publications/pub-details/?pubid=87376
WASDE http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documented=1194
Wheat Topics https://www.ers.usda.gov/topics/crops/wheat/

E-mail Notification

Readers of ERS outlook reports have two ways they can receive an e-mail notice about release of reports and associated data.

- Receive timely notification (soon after the report is posted on the web) via USDA's Economics, Statistics and Market Information System (which is housed at Cornell University's Mann Library). Go to http://usda.mannlib.cornell.edu/MannUsda/aboutEmailService.do and follow the instructions to receive e-mail notices about ERS, Agricultural Marketing Service, National Agricultural Statistics Service, and World Agricultural Outlook Board products.
- Receive weekly notification (on Friday afternoon) via the ERS website. Go to http://www.ers.usda.gov/Updates/and follow the instructions to receive notices about ERS outlook reports, *Amber Waves* magazine, and other reports and data products on specific topics. ERS also offers RSS (really simple syndication) feeds for all ERS products. Go to http://www.ers.usda.gov/rss/ to get started.