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Situation and Outlook

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Domestic Feature: Wheat Price Discovery by Michael Adjemian and Joseph Janzen

Approved by the World Agricultural Outlook Board.

Wheat Outlook

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World Production Forecast to be Record High, **U.S. Exports Down Slightly**

The forecast for larger Canadian and European Union wheat crops helps to lift 2017/18 global wheat production to a new record high this month. Projections for both global wheat output and trade now exceed last year's records. A sharp increase in wheat supplies in Canada is expected to intensify the competition facing U.S. exports during the latter part of the 2017/18 marketing year.

Figure 1: Canadian and U.S. wheat production and exports closely linked Exports (Mil. metric tons) Production (Mil. metric tons) 140 50 Canada-Prod. U.S.-Prod. 45 120 Canada-Exports U.S.-Exports 40 100 35 30 80 25 60 20 15 40

10 20 5 0 3003/2004 3015/3016 3017/3018

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

Domestic Outlook

Domestic Highlights

- U.S. ending stocks are raised 25 million bushels this month to 960 million based on reduced exports.
- Exports are lowered 25 million bushels to 975 million largely due to increased competition from Canada.
 - o As indicated in the *Production of Principal Field Crops* report, released on December 6, Statistics Canada raised their estimate of 2017 wheat production.
 - o Canadian wheat production is raised 3.0 million tons (approximately 107 million bushels) to 30.0 million (1.07 billion bushels).
- The 2017/18 season-average farm price for wheat is unchanged at \$4.60 per bushel.
 - o The price range is narrowed 10 cents to \$4.50-\$4.70 per bushel.
- Key USDA National Agricultural Statistics Service reports are due out next month and include *Crop Production, Grain Stocks*, and *Winter Wheat and Canola Seedings*.
 - o Final estimates of 2017/18 production figures will be released in January.
- USDA's Long Term Agricultural Projections to 2027 were released on November 13.
 - o All-wheat planted area for 2018/19 is forecast at 45 million acres.

Table 1 - U.S. whea	at supply and utili	zation at a glance 2	2017/18, Decembe	r 2017
Balance sheet item	2017/18 (November)	2017/18 (December)	2017/18 Change from previous month	2017/18 Comments
Supply, total		Million bushels		May-June Marketing Year (MY)
Beginning stocks	1,180.7	1,180.7	0.0	
Production	1,740.6	1,740.6	0.0	
Imports	150.0	150.0	0.0	Slight shifts among the classes based on pace: hard red winter down 1 million bushels, white wheat down 2 million; soft red winter up 3 million bushels. No change in aggregate imports.
Supply, total	3,071.3	3,071.3	0.0	
Demand				
Food	950.0	950.0	0.0	
Seed	66.0	66.0	0.0	
Feed and residual	120.0	120.0	0.0	
Domestic, total	1,136.0	1,136.0	0.0	
Exports	1,000.0	975.0	-25.0	Increased competition from Canada puts downward pressure on U.S. exports. Hard red winter and hard red spring wheat reduced 10 million bushels each; soft red winter lowered 5 million.
Use, total	2,136.0	2,111.0	-25.0	
Ending stocks	935.3	960.3	25.0	Forecast 25-million-bushel reduction in total use lifts carryout projection.
Source: USDA, Wor	ld Agricultural Outlo	ook Board.		

2017/18 U.S. Wheat Balance Sheet Unchanged from November

Ahead of the January release of USDA NASS's *Crop Production, Grain Stocks*, and *Winter Wheat and Canola Seedings* reports, 2017/18 supply and use categories for wheat are minimally changed this month. Exports are trimmed 25 million bushels to 975 million on a significant upward revision to Canadian production, which competes with U.S. wheat in Latin American and East Asian markets. Slight adjustments to imports and exports by class are reflected in updated quarterly and annual projections. On a trade-year basis, U.S. wheat exports are reduced 500,000 metric tons to 26.0 million, reflecting sluggish sales and expected strong competition from Canada, especially in spring wheat markets, through the balance of the trade year. Despite slightly lower exports, the U.S. season-average midpoint price is unchanged while the farm price range is narrowed by 10 cents on either end.

Winter Wheat

In January 2018, USDA NASS will release its final wheat estimates for the 2017/18 marketing year and its first official projections of winter wheat by class and desert durum seeded area for 2018. Last year's January *Winter Wheat and Canola Seedings* report projected winter wheat planted area to decline by 10 percent from the previous year to 32.4 million acres. September's *Small Grains Annual* pegged the winter wheat planted area at 32.7 million acres, within 1 percent of the initial projection made 9 months earlier.

In mid-November, the USDA Office of the Chief Economist released <u>Long-Term Agricultural Projections</u> to 2027 for major U.S. field crops, including wheat. Following a trend of decline, wheat plantings for the first year out are projected lower than for the 2017/18 marketing year, at 45 million acres. If the forecast is realized, all-wheat planted area would sink to a new record low, surpassing the previous low achieved in 2017. As for the past marketing year, the expected year-to-year decline in wheat sowings is largely attributed to relatively low returns to wheat. The all-wheat price in 2018/19 is projected at \$4.60 per bushel, versus \$3.30 for corn and sorghum.

As 2018 winter wheat heads into dormancy, 50 percent of the crop is rated "good" to "excellent," 8 percent lower than a year earlier and 3 percent below the 5-year average. Crop ratings have declined week to week due to persistent dry conditions. The Weekly Weather and Crop Bulletin reports that approximately 20 percent of 2018 winter wheat area is experiencing drought. The U.S. Drought Monitor indicates that sections of the Southwest, Plains, lower Midwest, South, Southeast, Mid-Atlantic, and High Central Plains have suffered an intensification and expansion of drought conditions in recent weeks. Winter wheat production in Arkansas, Missouri, Oklahoma, Texas, and South Dakota is undergoing abnormally dry to severe drought conditions.

Based on the pace of trade, imports of soft red winter (SRW) wheat are raised 3 million bushels to 20 million. Hard red winter (HRW) and white wheat imports are lowered this month to 5 and 7 million bushels, respectively. HRW exports are lowered 10 million bushels to 405 million and SRW exports are lowered 5 million bushels to 85 million.

Spring Wheat and Durum

No production changes are made this month to spring or durum wheat. Hard red spring exports are lowered 10 million bushels to 255 million. Statistics Canada's production revision featured a significant increase in Canadian spring wheat, which competes directly with U.S. hard red spring wheat in several markets. Durum exports are unchanged and remain at 20 million bushels, down from 24 million bushels in 2016/17.

Domestic Feature:

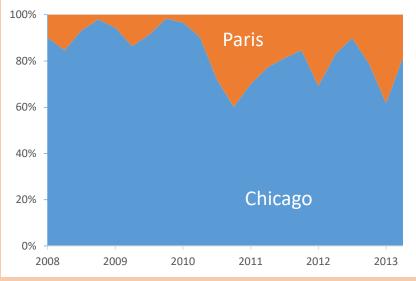
Wheat Price Discovery Remains Concentrated in the United States, but Shifting to Europe by Michael Adjemian (ERS) and Joseph Janzen (Montana State University)

Until recently, the United States led the world in the pricing and trade of wheat. In the late 1970s and early 1980s, the U.S. share of world wheat exports was 40 to 45 percent. By the 2015-16 marketing year, this share fell to just 13 percent. In the interim, a substantial share of world wheat exports shifted to Russia and Ukraine (collectively, the Black Sea region) and the European Union. In 2015-16, these countries made up 44 percent of world wheat trade, and Russia surpassed the United States as the world's leading wheat exporting nation.

At the same time, U.S. wheat futures prices are being supplanted by new price benchmarks that more closely track supply and demand conditions in the Black Sea region and the European Union. While the Chicago Mercantile Exchange Soft Red Winter Wheat futures contract is the most active wheat futures market in the world, futures trading volume has grown substantially for the Euronext Milling Wheat contract traded in Paris. Rising trade volume indicates that a market may be growing more influential for price discovery, the process by which markets determine the value of wheat through trades between willing buyers and sellers.

A new study by economists at ERS and Montana State University estimates the relative proportion of price discovery in the Chicago and Paris futures markets between 2008 and 2013. Using high-frequency price data, the authors identify the market where adjustment in the common value of all wheat first occurs. For example, supply shocks caused by severe weather events occurring in the Black Sea Region and the European Union are increasingly important to the world supply and demand outlook for wheat. Traders who prefer the Paris market—for reasons including hedging effectiveness, trading hours, or the currency in which trades are denominated—may possess better information about these events, and their trading activity may cause prices in Paris to move before prices in Chicago.

Figure 2: The Paris futures market has gained influence in wheat price discovery, but Chicago remains the leader



The study finds that U.S. futures markets remain dominant in wheat price discovery, although the Paris market has grown more important since 2010, when major supply shocks in the Black Sea region culminated in the imposition by Russia of a wheat export ban. Prior to August 2010, 91 percent of information about the common value of wheat was first revealed in Chicago futures prices. After August

2010, this share dropped to 75 percent. If this trend continues, wheat price movement in Paris will increasingly lead price changes elsewhere. Instead of Paris wheat futures complementing U.S. markets, establishing the price differential for wheat delivered in Europe relative to the United States, the Paris market may also substitute for U.S. markets in establishing the world benchmark value of wheat.

Feature Article is drawn from USDA-ERS' <u>Amber Waves</u>. Full article available at <u>American</u> <u>Journal of Agricultural Economics</u>

International Outlook

Key Competitor's Wheat Output Boosted This Month

The world wheat production forecast for 2017/18 climbed 3.5 million tons this month to 755.2 million, exceeding last year's record by 1.6 million tons. Foreign wheat production is projected to be much further ahead of last year's amount, up 17.1 million tons.

Though changes are driven mainly by Canada, where wheat output is now expected to be more than 10 percent higher than last month's projection, they are also supported by a lesser increase in projected wheat production in the European Union.

The latest Statistics Canada survey indicated excellent yields, despite concerns about drought in the Prairies and excess moisture in the East. In Manitoba, the spring wheat yields are at a record high, while Alberta and Saskatchewan yields are close to the previous record. The report revealed not only higher than expected spring wheat yields in all three Prairie Provinces, but also an unusually high ratio of harvested versus planted acres—as high as 99 percent in Alberta and Saskatchewan (last year the number was around 94 percent for both). Canadian spring wheat output for 2017/18 is expected to reach 22.2 million tons, among the highest output levels for this type of wheat (over the last 50 years, Canadian spring wheat output has exceeded 22.2 million tons only 7 times). The share of high-quality spring wheat in total wheat is expected to be the highest since 2010/11, a drought year with a small crop. Lower projected output of winter wheat and durum in Canada is pushing the share of spring wheat up. In the current world environment, where milling-quality wheat enjoys a high premium over low-quality grades, Canada is becoming more competitive in the high-quality segment of the wheat market, which puts additional pressure on U.S. exports.

Although projections for Australian wheat for 2017/18 are unchanged this month, adverse weather at the start of December in the eastern and southern parts of the continent could do further damage. It appears, though, that soaking rains in southern and eastern Australia were brief and caused less damage than originally expected. In all likelihood, the rains affected grain quality rather than size; the share of premium wheat grades in the States of Victoria, South Australia, and New South Wales will almost certainly end up on the lower end.

See most of country changes with brief explanations in table A, while map A shows every production change made this month.

Tal	ble A - Wheat	product	ion at a g	lance (2017/18	3), Dece	ember 2017
	Country or region	Crop year	Production	Change from previous month ¹	YoY ² change	Comments
				Million tons		
1	World	Various	755.2	+3.2	+1.6	
1	Foreign	Various	707.8	+3.2	+17.1	
	United States	June-May	47.4	No change	-15.5	See section on U.S. domestic wheat.
1	Canada	Aug-July	30.0	+3.0	-1.7	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. In Manitoba, spring wheat yields are at a record- high, while in Alberta and Saskatchewan yields are close to the previous record.
	Australia	Oct-Sep	21.5	No change	-12.0	Despite early December weather events, the Australian production estimate is unchanged. See text.
1	EU³	July-June	152.5	+1.0	+7.3	Harvest reports for individual countries continue to be revised. Wheat yields and output are projected higher, with the largest increase in Romania (recordhigh yield and production), Poland, Bulgaria, and in all three Baltic countries - Latvia , Lithuania , and Estonia . See also "Trends in EU Wheat Output Mask Regional Differences" by Lorraine Mitchell in the August Wheat Outlook report: http://usda.mannlib.cornell.edu/usda/ers/WHS//2010s /2017/WHS-08-14-2017.pdf
1	Brazil	Oct-Sep	4.3	-0.7	-2.5	Adverse weather (freeze and long period of dryness) and frequent incidences of disease pushed crop yields down more than expected. The reduction in wheat production reflects information and a report received from Rio Grande de Sul.
1	South Africa	Oct-Sep	1.6	-0.1	-0.3	Based on latest publication of the South African Crop Estimates Committee (CEC) following the lingering dryness in Western Cape Province.

¹Change from previous month's forecast. Changes of less than 0.1 million tons are also made for several countries.

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

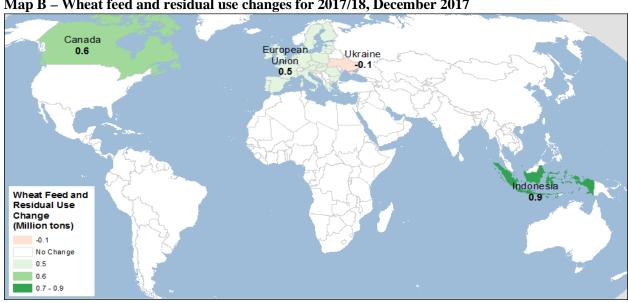
² YoY: year-over-year changes. ³ EU: European Union.

European 3.0 Union 1.01 Yemen -0.06 Wheat Production Change -0.65 (Million tons) -0.65 South -0.64 - -0.07 Africa -0.07 -0.06 No Change 1.01 Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.

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

Global Wheat Consumption Projected Higher, Stocks Slightly Up

World wheat domestic consumption for 2017/18 is forecast up 2.1 million tons this month to 742.1 million. Most changes are in the feed and residual use category, up 1.9 million tons to 142.7 million. Additional supplies of wheat suggest higher residual use and encourage additional feeding in wheatproducing countries, as well as an expansion of wheat consumption in importing countries. See specific country changes in wheat use in table B and wheat feed/residual use in map B.



Map B – Wheat feed and residual use changes for 2017/18, December 2017

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

	Country or region	Domestic consumption	Change ¹	Comments
		Million to	ons	
1	World	742.1	+2.1	
1	Foreign	711.2	+2.1	Includes feed and residual use as well as food, seed, and industrial use (FSI).
	United States	30.9	No change	See section on U.S. domestic wheat.
1	Indonesia	10.7	+1.0	In an attempt to support domestic grain producers, the Government of Indonesia imposed a ban on imports of feed grains—wheat and corn— that increased domestic prices. While corn imports are sharply reduced, lower grades of cheap milling wheat imports are flowing into the country from Ukraine and Russia and are used for producing animal feed, bypassing the import restrictions. Wheat <i>feed</i> use is up 0.9 million tons, while wheat <i>food</i> use is up 0.1 million tons.
1	Canada	8.7	+0.6	The country's higher wheat output means higher residual use and is also expected to be used to increase <i>feed</i> consumption and stocks.

With global consumption absorbing two-thirds of the production increase, global ending stocks rise just 0.9 million tons, or about 0.3 percent. Foreign wheat ending stocks for 2017/18 are up even less this month because of the stocks increase in the United States that is not part of foreign growth.

Canada Becoming More Competitive, With U.S. Exports Feeling Additional Pressure

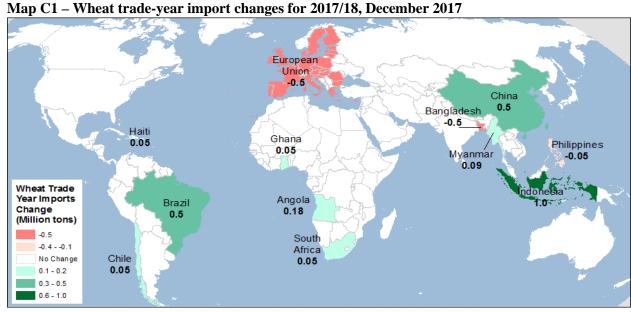
2017/18 world wheat trade for the July-June international trade year is projected 1.6 million tons higher this month at 183.8 million tons, which would better last year's record. Export prospects for a number of countries are revised to reflect changes in wheat supplies, policies, and competitiveness.

On the demand side, Indonesia is expected to import additional (mainly) low-quality wheat, bypassing Government restrictions and using imported wheat for feeding (see explanation in tables B above and C below). For a feature on Indonesia see <u>Grain: World Markets and Trade, Foreign Agricultural Service, December 17, p.1</u>

Higher wheat output for Canada supports its higher projected exports. The Statistics Canada projection for 2017/18 spring wheat output is the second largest in 20 years. In the current world market where the price of milling-quality wheat is rising relative to lower quality wheat, Canada is becoming more competitive in the high-quality segment, to the detriment of U.S. exports.

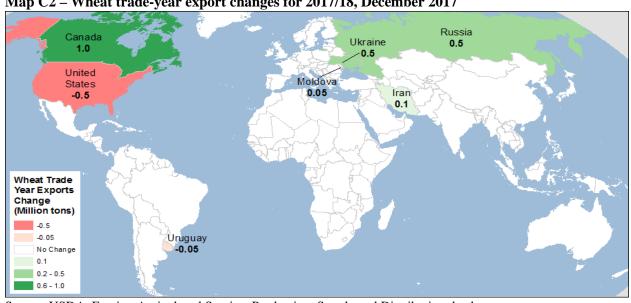
The U.S. wheat export forecast for 2017/18 is lowered 0.5 million tons to 26.0 million tons. A significant increase in Canadian spring wheat production, as well as ample wheat supplies in Argentina and Black Sea countries, are expected to impinge on U.S. competitiveness in wheat exports. Low U.S. export commitments and a slowing pace of sales support the forecast reduction.

For information on this month's changes in wheat trade with country-specific details, see table C; for all



changes in imports and exports, including the smaller ones, see map C1 and C2 below.

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



Map C2 – Wheat trade-year export changes for 2017/18, December 2017

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

	Country or region	Trade	Change in forecast ¹	YoY ² change	Comments
			Million tons		July-June international trade year (TY)
	World	183.8	+1.6	+1.5	
	Foreign	157.8	+2.1	+5.0	
/h	eat Exports (2017	/18)			
ļ	United States	26.0	-0.5	-3.5	A significant increase in Canadian crop estimates boosts Canadian competitiveness in the milling-quality segment of the wheat market and expected to impinge on U.S. wheat exports. Low U.S. export commitments and slow pace of sales support the reduction.
	Canada	22.0	+1.0	+1.7	Part of additional wheat output (spring wheat) is expected to be exporte Canada is becoming more competitive in the high-quality segment of the wheat market, pressuring U.S. exports.
	Russia	33.5	+0.5	+5.7	A reported brisk pace of exports pushes the export projection further int uncharted territory.
Î	Ukraine	17.0	+0.5	-1.1	Strong export sales justify an increase in projected Ukrainian wheat exports.
Vhe	eat Imports (2017/	(18)			
	Indonesia	11.5	+1.0	+1.3	Corn imports are sharply reduced. Lower grades of cheap milling-qualit wheat imports are flowing into the country from Ukraine and Russia and are used to produce animal feed, bypassing import restrictions.
	Brazil	8.0	+0.5	+0.2	Higher imports compensate for lower projected wheat output.
Î	China	3.5	+0.5	-0.9	Fast pace of wheat imports coming mainly from the United States, Australia, and Canada, though smaller amounts come from Kazakhsta and Russia.
ļ	European Union	6.0	-0.5	+0.7	Higher estimated wheat output and the weekly pace of shipments point lower wheat imports.
Ļ	Bangladesh	6.0	-0.5	+0.4	The reduction is based on pace of imports. Imports of an alternative for crop—rice—are on the rise, providing adequate amounts of food grains

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

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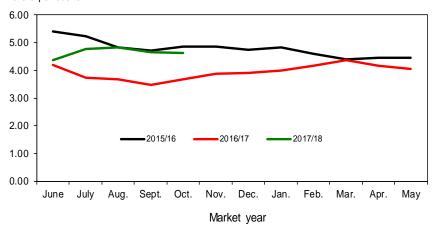
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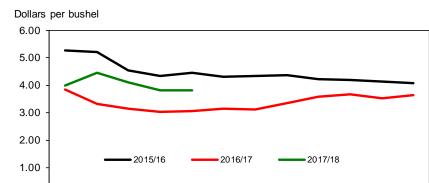
Figure 1
All wheat average prices received by farmers

Dollars per bushel



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

Figure 2
Hard red winter wheat average prices received by farmers



Nov. Dec. Jan. Feb. Mar. Apr. May Market year

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

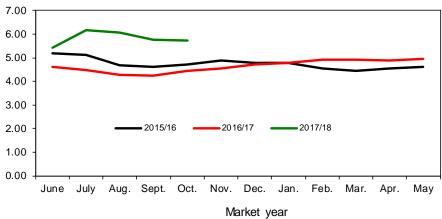
Figure 3
Hard red spring wheat average prices received by farmers

Aug. Sept. Oct.

Dollars per bushel

June July

0.00



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

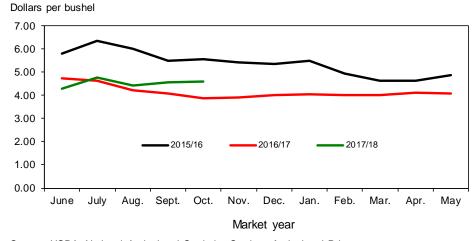
Figure 4
Soft red winter wheat average prices received by farmers

Dollars per bushel 6.00 5.00 4.00 3.00 2.00 2017/18 **2**015/16 2016/17 1.00 0.00 Sept. June July Aug Oct. Nov. Dec. Jan. Feb. Mar. Apr. May

Market year

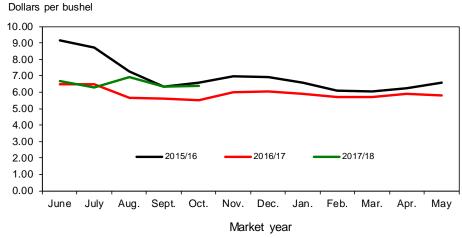
Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

Figure 5
Soft white wheat average prices received by farmers



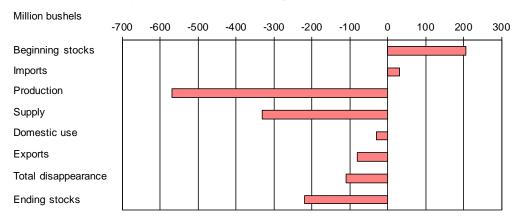
Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

Figure 6 **Durum wheat average prices received by farmers**



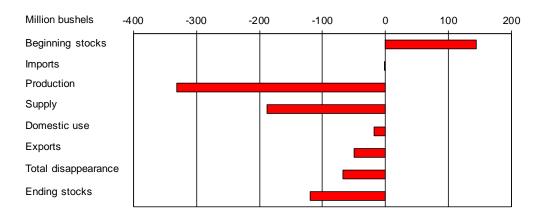
Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

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



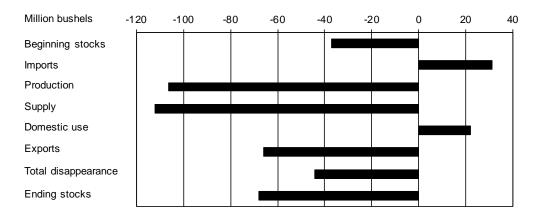
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates.

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



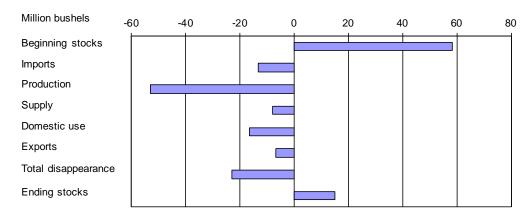
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates.

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



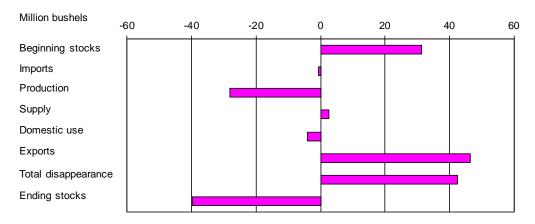
Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates.

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.

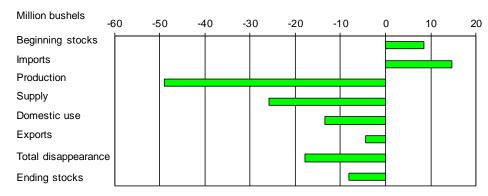
Figure 11
White wheat: U.S. supply and disappearance change from prior market year



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

Table 1--Wheat: U.S. market year supply and disappearance, 12/14/2017

Item and unit		2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Area:								
Planted	Million acres	54.3	55.3	56.2	56.8	55.0	50.1	46.0
Harvested	Million acres	45.7	48.8	45.3	46.4	47.3	43.9	37.6
Yield	Bushels per acre	43.6	46.2	47.1	43.7	43.6	52.7	46.3
Supply:								
Beginning stocks	Million bushels	863.0	742.6	717.9	590.3	752.4	975.6	1,180.7
Production	Million bushels	1,993.1	2,252.3	2,135.0	2,026.3	2,061.9	2,308.7	1,740.6
Imports ¹	Million bushels	113.1	124.3	172.5	151.2	112.7	118.1	150.0
Total supply	Million bushels	2,969.2	3,119.2	3,025.3	2,767.8	2,927.1	3,402.5	3,071.3
Disappearance:								
Food use	Million bushels	941.4	950.8	955.1	958.3	957.1	949.0	950.0
Seed use	Million bushels	75.6	73.1	75.6	79.4	67.2	61.3	66.0
Feed and residual use	Million bushels	158.5	365.3	228.2	113.4	149.4	156.4	120.0
Total domestic use	Million bushels	1,175.5	1,389.3	1,258.8	1,151.1	1,173.7	1,166.7	1,136.0
Exports ¹	Million bushels	1,051.1	1,012.1	1,176.2	864.3	777.8	1,055.1	975.0
Total disappearance	Million bushels	2,226.6	2,401.4	2,435.1	2,015.4	1,951.5	2,221.8	2,111.0
Ending stocks	Million bushels	742.6	717.9	590.3	752.4	975.6	1,180.7	960.3
CCC inventory	Million bushels						.0	
Stocks-to-use ratio		33.4	29.9	24.2	37.3	50.0	53.1	45.5
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	73.80	73.70	72.80	56.40	56.40	56.50	56.50
Farm price ²	Dollars per bushel	7.24	7.77	6.87	5.99	4.89	3.89	4.50-4.70
Market value of production	Million dollars	14,269	17,383	14,604	11,915	10,203	8,981	8,007

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.

Table 2--Wheat by class: U.S. market year supply and disappearance, 12/14/2017

	ear, item, and unit		All wheat	Hard red winter ¹	Hard red spring ¹	Soft red winter ¹	White ¹	Durum
2016/17								
	Planted acreage	Million acres	50.11	26.58	10.90	6.02	4.20	2.41
	Harvested acreage	Million acres	43.85	21.87	10.62	4.98	4.03	2.36
	Yield	Bushels per acre	52.65	49.47	46.28	69.37	71.08	44.03
	Supply: Beginning stocks	Million bushels	975.60	445.53	271.97	156.63	73.68	27.80
	Production	Million bushels	2,308.72	1,082.01	491.33	345.23	286.25	103.91
	Imports ²	Million bushels	118.14	5.05	41.78	33.19	7.74	30.38
	Total supply	Million bushels	3,402.47	1,532.58	805.07	535.05	367.67	162.10
	Disappearance:							
	Food use	Million bushels	948.98	384.71	250.00	150.00	85.00	79.27
	Seed use	Million bushels	61.27	26.20	15.48	11.02	5.17	3.40
	Feed and residual use	Million bushels	156.42	77.57	-16.27	67.34	9.04	18.74
	Total domestic use	Million bushels	1,166.66	488.48	249.21	228.36	99.21	101.41
	Exports ²	Million bushels	1,055.13	454.74	320.86	91.69	163.46	24.38
	Total disappearance	Million bushels	2,221.80	943.22	570.07	320.05	262.67	125.79
	Ending stocks	Million bushels	1,180.67	589.37	235.00	215.00	105.00	36.30
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	1,180.67	589.37	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	150.00	5.00	73.00	20.00	7.00	45.00
	Total supply	Million bushels	3,071.25	1,344.70	693.01	527.16	370.18	136.21
	Disappearance: Food use	Million bushels	950.00	385.00	250.00	150.00	85.00	80.00
	Seed use	Million bushels	66.00	30.00	16.00	12.00	5.00	3.00
	Feed and residual use	Million bushels	120.00	55.00	5.00	50.00	5.00	5.00
	Total domestic use	Million bushels	1,136.00	470.00	271.00	212.00	95.00	88.00
	Exports ²	Million bushels	975.00	405.00	255.00	85.00	210.00	20.00
	Total disappearance	Million bushels	2,111.00	875.00	526.00	297.00	305.00	108.00
	Ending stocks	Million bushels	960.25	469.70	167.01	230.16	65.18	28.21

production, are approximations.

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.

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

Table 3--Wheat: U.S. quarterly supply and disappearance (million bushels), 12/14/2017

	•		* *	•	•		Feed and		Ending
	ar and quarter	Production	Imports ¹	Total supply	Food use	Seed use	residual use	Exports ¹	stocks
2009/10	Jun-Aug	2,209	28	2,893	231	1	251	200	2,209
	Sep-Nov		24	2,234	237	44	-81	252	1,782
	Dec-Feb		30	1,812	222	1	31	201	1,356
	Mar-May		37	1,393	229	21	-59	227	976
	Mkt. year	2,209	119	2,984	919	68	142	879	976
	·								
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
	,	.,000		_,000	• • • • • • • • • • • • • • • • • • • •	. •		.,00	0
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
	with your	2,202		0,110	001		000	1,012	7.10
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	1,396	239	20	-43	205	976
	Mkt. year	2,062	113	2,927	957	67	149	778	976
	witt. your	2,002	110	2,021	007	O1	140	770	070
2016/17	Jun-Aug	2,309	33	3,317	238	1	266	268	2,545
	Sep-Nov		30	2,575	245	41	-28	239	2,077
	Dec-Feb		25	2,102	228	1	-22	238	1,657
	Mar-May		31	1,688	238	19	-60	310	1,181
	Mkt. year	2,309	118	3,402	949	61	156	1,055	1,181
	ma. your	2,000	110	0,402	0-10	O1	100	1,000	1,101
2017/18	Jun-Aug	1,741	42	2,963	239	2	183	286	2,253
	Mkt. year	1,741	150	3,071	950	66	120	975	960
	,	- ,		-,0			0	3. 3	

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.

Table 4--Wheat: Monthly food disappearance estimates (1,000 grain-equivalent bushels), 12/14/2017

Mkt year a month 1/	and	Wheat ground for + flour	Food imports ²	+ Nonmilled food use ³ -	Food exports ² =	Food use
2015/16	Jun	74,155	3,369	2,000	1,760	77,764
	Jul	74,749	2,987	2,000	1,850	77,887
	Aug	81,695	2,782	2,000	1,889	84,588
	Sep	78,556	2,768	2,000	1,928	81,396
	Oct	82,604	2,855	2,000	2,119	85,340
	Nov	79,065	2,989	2,000	2,050	82,005
	Dec	74,215	2,867	2,000	2,118	76,964
	Jan	73,645	2,769	2,000	2,032	76,383
	Feb	73,061	2,753	2,000	1,623	76,191
	Mar	77,514	2,842	2,000	2,220	80,135
	Apr	74,777	4,199	2,000	1,765	79,210
	May	76,456	2,832	2,000	2,026	79,262
2016/17	Jun	73,149	2,933	2,000	2,150	75,932
	Jul	74,237	2,639	2,000	1,665	77,212
	Aug	81,136	3,198	2,000	1,856	84,478
	Sep	78,018	2,537	2,000	2,140	80,415
	Oct	81,469	2,968	2,000	2,325	84,111
	Nov	77,978	3,191	2,000	2,201	80,968
	Dec	73,195	2,863	2,000	1,868	76,190
	Jan	73,561	2,858	2,000	2,027	76,392
	Feb	72,977	2,301	2,000	1,978	75,300
	Mar	77,425	2,840	2,000	1,789	80,477
	Apr	74,812	2,828	2,000	1,534	78,105
	May	76,492	2,818	2,000	1,914	79,396
2017/18	Jun	73,183	3,248	2,000	1,822	76,610
	Jul	74,520	2,966	2,000	1,795	77,691
	Aug	81,444	3,151	2,000	2,107	84,488
	Sep	78,315	2,622	2,000	1,411	81,526
	Oct		3,243	2,000	1,133	4,109

http://www.ers.usda.gov/Briefing/Wheat/wheatfooduse.htm for more information.

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.

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.

Wheat prepared for food use by processes other than milling.
 Estimated food use equals wheat ground for flour plus food imports plus nonmilled food use minus food exports. See

Table 5--Wheat: National average price received by farmers (dollars per bushel), 12/14/2017

Month	All wheat		Wi	nter	Du	rum	Other	spring
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
June	4.20	4.37	3.97	4.11	6.50	6.69	4.61	5.35
July	3.75	4.77	3.56	4.56	6.47	6.30	4.48	6.09
August	3.68	4.83	3.41	4.27	5.66	6.93	4.26	5.87
September	3.48	4.65	3.25	4.11	5.61	6.32	4.22	5.62
October	3.68	4.64	3.37	4.17	5.51	6.41	4.38	5.55
November	3.88		3.41		6.00		4.48	
December	3.90		3.40		6.07		4.66	
January	4.01		3.53		5.90		4.74	
February	4.16		3.77		5.71		4.83	
March	4.37		3.82		5.72		4.86	
April	4.16		3.70		5.90		4.83	
May	4.05		3.77		5.82		4.81	

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

Table 6--Wheat: National average prices received by farmers by class (dollars per bushel), 12/14/2017

Month	Hard red winter		Soft re	d winter	Hard re	d spring	Wh	nite
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
June	3.84	3.99	4.45	4.50	4.61	5.41	4.75	4.30
July	3.32	4.45	4.16	4.84	4.48	6.16	4.63	4.77
August	3.15	4.10	3.92	4.49	4.27	6.07	4.23	4.43
September	3.02	3.82	3.68	4.33	4.24	5.75	4.08	4.55
October	3.07	3.82	3.83	4.48	4.46	5.73	3.88	4.59
November	3.16		3.85		4.54		3.92	
December	3.11		3.91		4.72		4.00	
January	3.35		4.04		4.78		4.04	
February	3.59		4.25		4.91		4.02	
March	3.66		4.29		4.92		4.01	
April	3.52		4.19		4.89		4.11	
May	3.65		4.20		4.95		4.07	

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

Table 7Wheat:	Average ca	ash arain	hids at	principal	markets	12/14/2017
Table 1 Willeat.	Avelage G	asıı urallı	Dius at	DITIODAL	mainets.	12/14/2017

Table 7Wilea	No. 1 hard (ordinary Kansas	I red winter y protein) City, MO er bushel)	No. 1 hard (13% p Kansas		(ordinary Portla	red winter y protein) nd, OR er bushel)	(ordinar Texas (I red winter y protein) Gulf, TX ¹ r metric ton)	
Month	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	
June	5.04	5.24	5.54	6.65	5.18	4.53	176.55	189.60	
July	4.24	5.65	5.18	7.22	4.66	5.12	151.57	203.74	
August	4.15	4.80	5.32	6.28	4.62	4.22	149.18	171.41	
September	4.24	5.07	5.36	6.52	4.41	4.81	150.47	178.76	
October	4.40	5.11	5.58	6.24	4.20	5.03	152.12	175.82	
November	4.64	5.30	5.70	6.84	4.12	4.96	150.28	179.49	
December	4.56		5.76		4.03		141.83		
January	4.91		6.03		4.34		153.22		
February	5.04		6.08		4.58		155.24		
March	4.80		5.53		4.54		154.32		
April	4.37		5.08		4.23		165.90		
May	4.80		5.89		4.31		180.04		
	No. 1 dark northern spring (13% protein) Chicago, IL (dollars per bushel)		Chica	orthern spring protein) ago, IL er bushel)	Portla	orthern spring protein) nd, OR er bushel)	No. 1 hard amber durum Minneapolis, MN (dollars per bushel)		
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	
June					6.35	7.50			
July					5.82	8.77			
August					5.97	7.74			
September					5.98	7.40			
October					6.34	7.39			
November					6.28	7.52			
December					6.49				
January					6.80				
February					6.81				
March					6.60				
April					6.45				
May					6.64				
Iviay	No 2 soft	red winter		red winter		red winter	No. 1 soft white		
	St. Lo	uis, MO er bushel)	Chica	er bushel)	Toled	lo, OH er bushel)	Portla	nd, OR er bushel)	
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	
June	4.74	4.66	4.70	4.41	4.69	4.44	5.46	4.91	
July	4.23	5.15	4.12	4.96	4.22	4.94	5.07	5.40	
August	3.90	4.31	3.99	4.12	4.03	4.20	4.89	5.13	
September	3.89	4.30	3.76	4.23	3.72	4.27	4.77	5.19	
October	3.89	4.16	3.82	4.22	3.90	4.24	4.65	5.30	
November	4.04	4.34	3.88	4.13	3.92	4.18	4.64	5.26	
December	3.91		3.94		3.80		4.57		
January	4.17		4.16		4.09		4.63		
February	4.38		4.26		4.28		4.74		
March	4.24		4.06		4.14		4.70		
April	4.14		3.93		4.08		4.61		
May	4.20		4.08		4.19		4.77		

-- = Not available or no quote.

1 Free on board.

Source: USDA, Agricultural Marketing Service, State Grain Reports, http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?
template=TemplateS&navID=MarketNewsAndTransportationData&leftNav=MarketNewsAndTransportationData&page=LSMarketNewsPageStateGrainReports.

Date run: 12/13/2017 Date run: 12/13/2017

Table 8--Wheat: U.S. exports and imports for last 6 months (1,000 bushels), 12/14/2017

		May	Jun	Jul	Aug	Sep	Oct
Item		2017	2017	2017	2017	2017	2017
Exports	All wheat grain	114,788	111,472	83,974	85,175	86,268	51,022
	All wheat flour ¹	1,538	1,456	1,438	1,661	909	707
	All wheat products ²	418	393	385	474	542	454
	Total all wheat	116,744	113,322	85,797	87,310	87,719	52,183
Imports	All wheat grain	7,206	8,438	10,481	13,734	8,920	8,285
	All wheat flour ¹	1,204	1,416	1,339	1,349	1,231	1,554
	All wheat products ²	1,638	1,858	1,652	1,834	1,409	1,717
	Total all wheat	10,048	11,712	13,472	16,917	11,560	11,556

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 ERS calculations using Census trade statistics.