



**Economic Research Service | Situation and Outlook Report** 

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### **Wheat Outlook**

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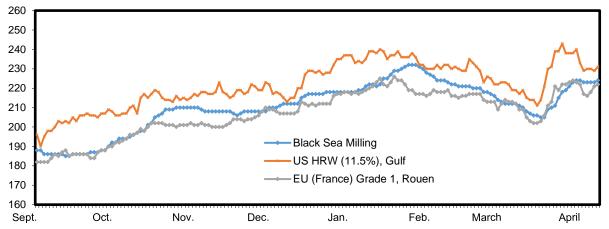
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# Global Trade Cut on New Restrictions for Russia and Reduced Exports for U.S.

On April 2, 2020, the Government of the Russian Federation imposed a 7-million-metric ton quota on total exports of wheat and other grains until June 30, 2020. This binding restriction combines with strengthening Black Sea prices to reduce the 2019/20 wheat export forecast for Russia by 1.5 million tons to 33.5 million (fig.1). Surging domestic wheat prices and a relatively strong dollar have also created headwinds for U.S. exports, lowered 0.4 million tons to 27.1 million. The European Union (EU) and Australia are the only major wheat exporters whose exports are raised month-to-month. On reduced competition from Russia and continued competitive prices, EU wheat exports are raised 1.5 million tons to 33.5 million. Australia's exports are increased 0.3 million tons to 8.5 million on a stronger than expected export pace.

U.S. wheat prices remain above most key exporters, European Union wheat price near lowest (Dollars/metric ton)



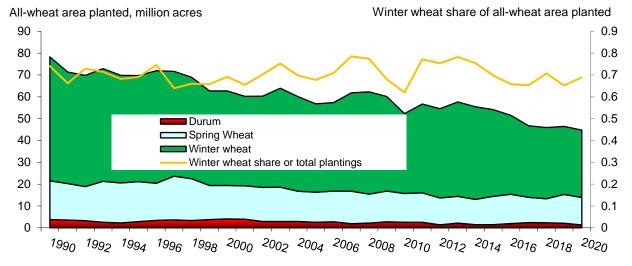
Note: EU wheat is Grade 1, Rouen; US HRW is Gulf hard red winter wheat (11.5% protein). Black Sea wheat is milling quality. Source: International Grains Council.

### **Domestic Outlook**

### Domestic Changes at a Glance:

- U.S. exports are lowered 15 million bushels to 985 million on the recently slowing pace of U.S. international sales and increasingly competitive prices for the European Union and other key exporting nations.
- U.S. all-wheat feed and residual use is trimmed 15 million bushels on lower-thanexpected second and third quarter disappearance, an increasing wheat-to-corn price ratio, and increased availability of corn because of greatly reduced ethanol demand.
- Resulting ending stocks are increased 30 million bushels to 970 million on reduced use.
- Despite a lower stocks-to-use ratio, the season average farm price is raised 5 cents to \$4.60 per bushel.
  - Recently, cash and futures prices for wheat—the principal food grain grown in the U.S—have surged, the result of the COVID-19 pandemic which is attributed with creating a surge in retail sales.
- The USDA-NASS *Prospective Plantings* report estimates 2020/21 all-wheat planted area at 44.7 million acres (fig. 2).
  - If realized, this will be the lowest all-wheat area planted since records began in 1919. Winter wheat sowings are at a 109-year low but comprise a constant share of all-wheat sowings at about 70 percent of total.

Figure 2
As total wheat planted area declines, winter wheat maintains near constant share of sowings<sup>1</sup>



<sup>1</sup>2020 wheat planted area and winter wheat share of all-wheat area planted are estimates. Sources: USDA, National Agricultural Statistics Service, *Quickstats database* and USDA, Economic Research Service.

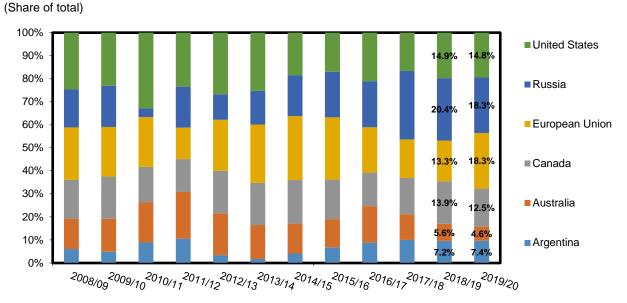
Table 1 - U.S. wheat supply and utilization at a glance 2019/20				
Balance sheet item	2019/20 March	2019/20 April	Change from previous month	Comments
Supply, total				May-June Marketing Year (MY)
Beginning stocks	1,079.8	1,079.8	0.0	
Production	1,920.1	1,920.1	0.0	
Imports	105.0	105.0	0.0	Imports are unchanged this month based on the pace of Census imports through February 2020.
Supply, total	3,104.9	3,104.9	0.0	
Demand				
Food	955.0	955.0	0.0	Food use remains unchanged as surging retail sales are expected to largely offset declining institutional and restaurant sales. The NASS May 1, Flour Milling Products report will possibly provide clarity on the net effects of COVID-19 related impacts on flour production through the end of March.
Seed	60.0	60.0	0.0	Seed use was re-assessed with data on updated NASS winter wheat sowings. Aggregate seed use is unchanged with slight changes across the classes.
Feed and residual	150.0	135.0	-15.0	Smaller-than-expected implied second and third quarter disappearance and rising relative wheat prices combined with increasingly abundant corn supplies to reduce demand for wheat feeding (-10 million for HRW and -5 million for SRW).
Domestic, total	1,165.0	1,150.0	-15.0	
Exports	1,000.0	985.0	-15.0	The recently slowing pace of U.S. wheat exports sales, especially for HRW (-10 million) and SRW (-5 million) led to a 15 million bushel cut.
Use, total	2,165.0	2,135.0	-30.0	Reduced feed and residual and lower export use combine to lower total use by 30 million bushels.
Ending stocks	939.9	969.9	30.0	Stocks are raised 30 million bushels on a lower total utilization.
Season Average Farm Price	\$4.55	\$4.60	\$0.05	Despite the vast majority of 2019/20 wheat having been sold already, rising domestic prices-both futures and cash, support a 5-cent increase in the season average all-wheat price.

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

#### U.S. Export Pace Slows on Strengthening Prices

Prices for all major wheat exporters, including the U.S., have found strength in recent weeks, while prices for other commodities, such as corn, have seen sharp declines. Domestic price support has been attributed the lower-than-expected U.S. all-wheat sowings revealed in the NASS March *Prospective Plantings* report, as well as a reported spike in retail sales of bread and flour, even as institutional sales are estimated to have declined. In late March, trade rumors of export restrictions-and the ultimate imposition of quotas for Ukraine, Russia, and Kazakhstan grains in early April, fueled concerns about reduced availability of wheat in international markets and lent further support to export and futures price gains. Rising wheat prices across the global marketplace have not enhanced the competitive position of the U.S. and the pace of sales in recent weeks has slackened, leading to a 15-million-bushel reduction in the 2019/20 export forecast. Elsewhere in the world, Russian quotas and a brisk pace of EU exports have led to an equalization of shares of global exports for these two nations (fig. 3).

Figure 3
U.S. share of global wheat export stays steady as the European Union gains ground



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

## Feed and Residual Lowered on Smaller-than-Expected Q3 Disappearance and Rising Wheat Prices

On March 31, USDA, National Agricultural Statistics Service (NASS) released the latest *Grain Stocks* report. Partly based, on third quarter disappearance that was below previous estimates, the 2019/20 all-wheat feed and residual estimate is cut 15 million bushels to 135 million. At 135 million bushels, the 2019/20 feed and residual estimate is still well-above last year's 90 million and below the 10-year average of 155 million bushels. Historically, wheat feed and residual grows (shrinks) as wheat becomes more (less) competitively priced, relative to corn (fig. 4). This month, the season-average farm price (SAFP) for corn dropped 20 cents per bushel to \$3.60 while the all-wheat SAFP rose 5 cents per bushel to \$4.60, boosting the wheat-to-corn price ratio to 1.28, up from 1.19 the previous month. In addition to increasing divergence between these two prices, an unprecedented drop in gasoline consumption and associated reduction in ethanol demand—caused by COVID-19, supports expanded corn feed and residual use and expectations that wheat use in feed rations will be displaced.

Mil. bu Wheat-to-corn price ratio 450 1.8 Feed and residual Wheat-to-corn price ratio 400 1.7 350 1.6 300 1.5 250 1.4 200 1.3 150 1.2 100 1.1 50 0 91/92 93/94 95/96 97/98 99/00 01/02 03/04 05/06 07/08 09/10 11/12 13/14 15/16 17/18 19/20

Figure 4
U.S. feed and residual tends to retreat as wheat-corn-price ratio strengthens

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

### Surge in Retail Sales of Wheat Products Expected to Mostly Offset Reduced Foodservice Demand

Since the beginning of March, shoppers have reportedly increased their purchases of a variety of staple groceries, including bread, flour, and other wheat-containing products (Rabobank). Ahead of the traditional Easter baking season, industry sources report that mills were well-positioned to meet the seasonal surge in demand (Sosland Market Focus). However, as the COVID-19 pandemic spread across the U.S. and more families chose to shelter in place, an increasing volume of wheat-based food products were being demanded at the retail level. Sosland Milling and Baking News (Ingredient Week) reports that manufacturers of packaged goods (snacks, crackers, cookies) expected as much as a 15 to 20 percent increase in retail demand. In addition, in March sales of "family flour"—flour that is sold mainly to home bakers—were reported to have sharply increased with "flour shelves cleared of every brand, every type and every size" according to a Midwest miller and reported by Sosland. More recently, as the initial panic buying surge has eased, sales of pan breads have been above average, but lower week-to-week (Sosland Market Focus).

While millers have worked to fill orders and meet the super-seasonal surge in retail demand, institutional food service demands—such as from schools and restaurants—are thought to have fallen off by 30 to 50 percent, by some estimates. However, the cut in food service sector flour demand has also been described as a "moving target" by milling experts that varies regionally. The net effect of increased retail demand for wheat-based foods and reduced food service demand is presently expected to result in limited, if any, changes to USDA's current U.S. wheat food use estimate. The 2019/20 projection of 955 million bushels will be re-assessed in May, following the publication of the *Flour Milling Products* report, which will provide milling data through the end of March and offer a quantitative indication at the early effects of the COVID-19 virus on demand for wheat-based foods.

### Record Low U.S. All-wheat Sowings Forecast to Total Just 44.7 Million Acres

The NASS March *Prospective Plantings* report provides the first survey-based estimates of producers anticipated other spring and durum wheat plantings, as well as revised winter wheat seedings. For the 2020/21 marketing year, farmers intend to plant less wheat in aggregate than any other time since at least 1919 when U.S. wheat production records began. All-wheat planted area is down about 1 percent from the 2019/20 marketing year to 44.7 million acres

based on year-to-year reductions in winter wheat (down 1 percent), other spring (down 1 percent), and durum (down 4 percent). These estimates compare to the USDA 2020/21 projections presented at the USDA *Grains and Oilseed Outlook* Grains at the February 2020 USDA *Agricultural Outlook Forum*, which projected U.S. all-wheat planted area at 45.0 million acres.

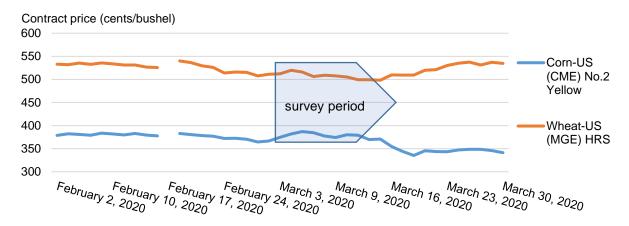
Compared to the NASS *Winter Wheat and Canola Seedings* report, issued January 10, 2020, U.S. winter wheat sowings are estimated at 30.8 million acres—a slight decline from the previous forecast and the second-lowest winter wheat planted area on record. Hard Red Winter (HRW) wheat sowing are forecast down to 21.7 million acres from 22.5 million in 2019/20. Soft Red Winter (SRW) acres, which had fallen to 5.2 million acres in 2019/20, are estimated to rebound in 2020/21 to 5.7 million. Winter white wheat is expected to shed acres year to year; NASS forecasts the total of hard and soft white winter wheat at 3.42 million acres for 2020/21, down from 3.54 million acres in 2019/20. Winter wheat planted area in Nebraska and Utah are forecast to be record low. Other spring wheat sowings are estimated down 1 percent from the previous year to 12.6 million acres. Hard red spring (HRS) sowings are forecast at 11.9 million acres compared with 12.01 million in 2019/20. Hard red spring sowings in North Dakota—where more than 50 percent of the 2019/20 HRS crop was grown—are expected to decline by 9 percent. Durum wheat for 2020 is estimated to fall to 1.29 million acres from 1.34 million in 2019. About half of durum wheat grown in the U.S. was sown in North Dakota in 2019; for 2020 durum plantings in the State are forecast to be record low.

The USDA, NASS *Prospective Plantings* report collected survey data from farmers during the first 2 weeks of March. During this period, spring wheat futures prices and corn prices tracked closely, with wheat prices averaging about a \$2 per bushel above the Chicago Mercantile Exchange (CME) futures contract price (Yellow #2) for corn (fig. 5). After the close of the NASS data collection period in mid-March, the corn price began a steady decline as an increasing share of the U.S. population began to shelter in place and reduce driving—thereby reducing gasoline demand for corn ethanol-blends. While corn prices fell, the spring wheat contract began to strengthen on speculative buying, fueled by a surge in domestic retail sales for wheat-based food products.

Spring wheat planting in the Northern Plains typically begins in mid- to late April, however, famers' ability to get into fields can be greatly affected by soil moisture which is a function of precipitation and evaporation. In the first week of April, a late-season storm dropped winter-like precipitation across Northern and Central regions of the U.S. including sections of the North Dakota and Minnesota. As of April 4, most of the Northern Plains was snow-covered. This snow

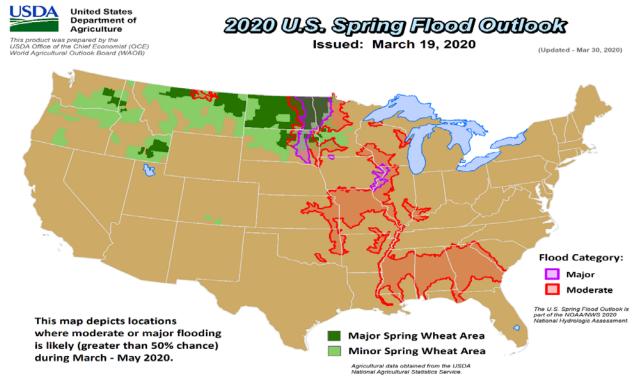
must melt prior to planting the spring wheat crop and contributes to the risk of flooding in key Hard Red Spring wheat growing areas. Much of the spring wheat production area is in zones where there is a greater than 50 percent change of moderate to major flooding (fig. 6). Please see the current *Weekly Weather and Crop Bulletin* for additional information.

Figure 5
Spring wheat price surge began as survey period for NASS *Prospective Plantings* report ended



Source: International Grains Council.

Figure 6: Portion of common spring wheat cultivation zone in area of likely moderate to major flooding



Source: Harlan Shannon, USDA, Office of the Chief Economist, World Agricultural Outlook Board.

### International Outlook

### Global Ending Stocks Rise on Reduced Exports and Feed Use

Global ending stocks for 2019/20 are raised this month by 5.6 million tons to a record high 292.8 million on reduced exports and feed utilization (fig. 7). Exports are lowered nearly 1 million tons to 182.7 million on a 1.5-million-ton reduction in Russia exports, a 0.4 million reduction for the U.S., and a 0.3 million reduction for Pakistan. A 1.5 million ton increase in exports for the European Union (EU) partially offsets these cuts. EU exports have benefited from increasingly competitive prices, especially compared with Russia, and abundant exportable supplies. Also, the EU is well-positioned logistically to garner some of Russia's lost export business. Rising relative prices for Russian wheat began first as a response to expected quota impositions that only recently became official and have guided the forecast 2019/20 export down to 33.5 million tons—on par with a newly revised export outlook for the EU.

(Mil. Metric Tons) (Mil. Metric Tons) 1000 350 900 300 Exports 800 250 700 Feed Dom. Consumption 600 200 500 Food, Seed, and Industrial 150 400 Use **Ending** 300 100 Stocks 200 50 100 0  $\begin{smallmatrix} 2009/2010 & 2011/2012 & 2012/2013 & 2013/2014 & 2015/2016 & 2017/2018 & 2019/2020 & 20$ 

Figure 7
Global wheat ending stocks rise to new record high as feed and export use tumbles

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

#### Nations Respond to COVID-19 Pandemic

In response to the growing global COVID-19 pandemic, some nations have enacted policies that affect wheat markets. In addition to the export restrictions noted for Russia in early April, Kazakhstan set an export quota of 200,000 metric tons of wheat and 70,000 metric tons of wheat flour. At this time, the Kazakhstan ban is not expected to be binding and exports for the country are unchanged this month. Ukraine's wheat exports have slowed in recent weeks as prices have risen. However, the Ukraine Government's plan to limit wheat exports to 20.2 million metric tons is on par with the expected export total for the country (for both wheat and flour). Please see this month's USDA, FAS *Grain Markets and Trade* for a synopsis of situation in the Black Sea region.

In India, the Indian Council of Agricultural Research has advised wheat farmers to delay harvesting of the 2020/21 wheat crop until late April. Much of the wheat in India is harvested by manual labor provided by internal immigrants who are from villages in regions outside of the main wheat production zones of Uttar Pradesh, Punjab, Madhya Pradesh, and Haryana. Stayat-home orders caused by COVID-19 have limited the ability of individuals to commute to jobs in the major harvest regions.

### Wheat Feed Use Raised on Drop in Expected Utilization from EU and China

Global feed use is lowered 3.6 million tons this month to 144.3 million on reduced use estimates for the EU and China. Feed use for the EU is lowered, partly due to increased use of barley in feed rations as wheat prices become less competitive with other grains. In China, wheat feeding is reduced 2 million tons to 119 million on overall reduced feed demand. Globally, corn feeding was increased about 3.5 million tons on increased grain availability because of reduced ethanol production. Increased corn available for feeding is expected to create competition for wheat in global and domestic feed markets.

#### Imports Shifts for Several Major Wheat-Importing Nations

Global imports are little-changed this month, down less than 0.6 million tons to slightly above 180 million tons. Several mostly small and partially offsetting changes underpin the revisions. Most notably, wheat imports to Japan are cut 0.3 million tons on reduced domestic demand manifested as lower feeding and food demand resulting from reduced tourism and less food

eaten away from homes. Brazil imports are trimmed 0.2 million tons on the demand-rationing effects of higher domestic prices. Local grain and oilseed operators in Brazil are said to be facing challenges related to hiring trucks to move grains and oilseed, increasing the costs of transporting domestic and imported grains. Further, in late March, at least one town in the Brazilian State of Mato Grosso issued a decree preventing the shipping of grains out of the area to reduce the spread of COVID-19. Wheat imports to Uzbekistan are lowered 0.3 million tons on the slow pace of trade to date as well as export restrictions for Kazakhstan—a major supplier of wheat and flour to Uzbekistan. Moroccan imports are raised 0.3 million tons on expectations of a smaller 2020/21 wheat crop. Starting in fall and lasting through late winter, the Moroccan wheat crop suffered from a prolonged period of drought. Recent showers are reported to be too late in the reproductive cycle to benefit grain fill for the local wheat crop. Please see the most recent USDA, OCE Weekly Weather and Crop Bulletin for additional details.

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