

Economic Research Service | Situation and Outlook Report

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Wheat Outlook: January 2021

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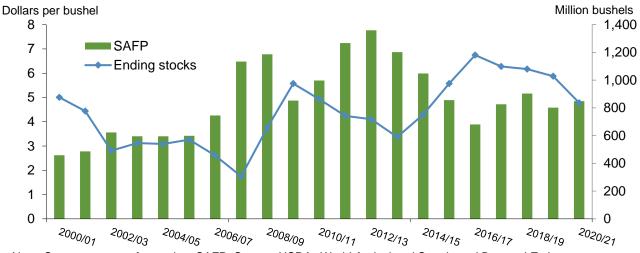
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Tightened 2020/21 Balance Sheet Helps Lift U.S. Wheat Price

Following the release of key USDA, National Agricultural Statistics Service reports, second quarter disappearance is revealed to be greater than previously expected. On higher domestic use, the 2020/21 U.S. wheat balance sheet is tightened with ending stocks lowered 26 million bushels to 836 million, the lowest level since 2014/15 and well-below the 5-year average of 1,073 million (fig. 1). In addition to balance sheet tightening, rising corn and soybean season-average farm prices (SAFPs), up 20 cents and 60 cents respectively from their December forecasts, provide support for a 15-cent increase in the SAFP for wheat, now forecast at \$4.85 per bushel.

Figure 1 U.S. all wheat price tends to rise as ending stocks tighten

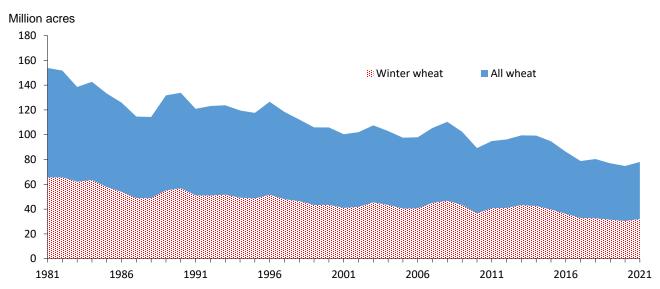


Domestic Outlook

Domestic Changes at a Glance:

- The latest Grain Stocks report indicates stronger-than-expected second quarter disappearance with U.S. wheat ending stocks totaling 1,673.6 million bushels, about 9 percent below last year's December 1 estimate.
 - Implied total September-November disappearance is 512 million bushels.
- Based on increased disappearance, 2020/21 feed and residual use is raised 25 million bushels to 125 million.
- Winter wheat seedings are up 5 percent from the previous year based on data from the USDA, National Agricultural Statistics Service Winter Wheat and Canola Seedings report (fig. 2).
- Updated winter wheat plantings data underpins a 1-million-bushel increase in 2020/21 seed use.
- Increased domestic use leads to a 26-million-bushel reduction in ending stocks.
 - At 836 million bushels, 2020/21 ending stocks are 19 percent below the prior year.
- The U.S. season-average farm price is raised 15 cents per bushel this month to \$4.85
 on NASS prices reported to date, a tighter balance sheet, and generally strengthening
 commodity prices, particularly for grains.

Figure 2 2021/22 U.S. winter wheat plantings projected to rise 5 percent after trending lower in recent years

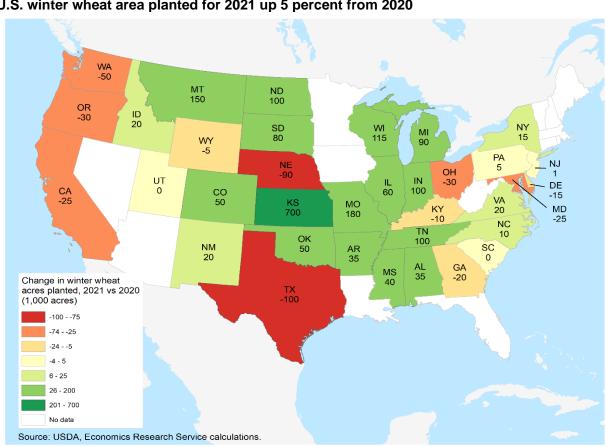


Note: 2021 U.S. wheat planted area is taken from USDA's *Long Term Projections to 2030*. Source: USDA, National Agricultural Statistics Service, *Quickstats database*.

Table 1 - U.S. wheat supply and use 2020/21							
Balance sheet item	2020/21 December	2020/21 January	2020/21 Change from previous month	Comments			
Supply, total				May-June Marketing Year (MY)			
Beginning stocks	1,028	1,028	0				
Production	1,826	1,826	0				
Imports	120	120	0				
Supply, total	2,974	2,974	0				
Demand							
Food	965	965	0				
Seed	62	63	1	Seed use increased on small expansion of winter wheat acres.			
Feed and residual	100	125	25	With a greater than expected second quarter disappearance revealed in the December 1 stocks report, feed and residual increased 25 million bushels.			
Domestic, total	1,127	1,153	26	Rising feed and residual and seed use combine to increase domestic use by 26 million bushels.			
Exports	985	985	0				
Use, total	2,112	2,138	26	With no export changes, domestic use changes account for the increase in total use.			
Ending stocks	862	836	-26	With increased feed and residual and a slight rise in seed use, ending stocks are drawn down a further 26 million bushels and remain at the lowest level since 2014/15.			
Season Average Farm Price	\$4.70	\$4.85	\$0.15	With a tightening balance sheet and stronger corn and soybean prices, the seasonal average farm price is increased 15 cents.			
Source: USDA, World Agricultural Outlook Board Supply and Demand Estimates.							

2021/22 Winter Wheat Seedings Up Nearly 1.6 Million Acres from 2020/21

This month, USDA-NASS released the *Winter Wheat and Canola Seedings* report, indicating winter wheat sowings for the 2021/22 marketing year are up 5 percent or approximately 1.6 million acres from 2020/21. Winter wheat planted area is approximately 32 million acres and, while higher year to year, sowings remain relatively low with 2021/22 area planted estimated as the fourth lowest on record. Year-to-year gains in winter wheat sowings are greatest for the key hard red winter (HRW) wheat-growing State, Kansas (up nearly 11 percent), followed by Missouri (up 4 percent), and Montana (up 10 percent) (map 1). During the fall sowing window, sections of the Great Plains experienced dry to droughty conditions that facilitated a brisk pace of planting and emergence; both of which remained above the 5-year average pace. Dry conditions have persisted through the late fall and into winter in the HRW wheat belt and approximately 40 percent of the 2021/22 crop entered emergence in drought conditions.



Map 1 U.S. winter wheat area planted for 2021 up 5 percent from 2020

Sources: USDA, National Agricultural Statistics Service *QuickStats Database* and USDA, Economic Research Service calculations.

By class, area planted to HRW is up 4 percent from the prior year with the largest increases indicated for Kansas, Montana, and North Dakota (table 2). Area planted to soft red winter (SRW) is 12 percent above the 2020/21 estimate with sizable increases in sowings for Indiana, Missouri, Tennessee, and Wisconsin. Aggregate white winter wheat plantings are down modestly from the year prior with a slight increase in hard white winter wheat more than offsetting a decline in soft white winter wheat sowings. Favorable conditions in the Pacific Northwest are reported to have aided in the timely planning of the 2021/22 white wheat crop.

Table 2

Winter wheat planted area by class (million acres)							
•	HRW	SRW	HWW	SWW			
2020/21	21.362	5.564	0.320	3.169			
2021/22	22.275	6.233	0.339	3.144			

Note: HRW=hard red winter wheat; SRW=soft red winter wheat; HWW=hard white winter wheat; SWW=soft white winter.

On March 31, USDA-NASS will release the *Prospective Plantings* report, providing survey-based information on the potential intended acreage of the other spring and durum wheat crops. This report will also include revised data on winter wheat seedings. Survey data are collected during the first two weeks of March and ahead of the start of the spring wheat planting window (mid-April to early June) in the key North Plains cultivation region. Additional seeding and productions updates will be published in May and June *Crop Production* reports.

Second Quarter Domestic Use Greater Than Expected

From September to November total U.S. wheat disappearance totaled 512 million bushels and compares to disappearance of 528 million realized during the same period in 2019. While lower than for 2019/20, 2020/21 second quarter disappearance was revealed to be about 40 million bushels above prior estimates and indicative of stronger-than-expected domestic use. Based on the *Grain Stocks* report:

- Feed and residual was adjusted higher by 25 million bushels to 125 million;
- HRW feed and residual is raised 15 million bushels to 35 million;
- Hard red spring wheat is raised 5 million bushels to 40 million;
- Soft red winter wheat is raised 5 million bushels to 45 million;
- White wheat and durum feed and residual use are unchanged.

Next month, USDA NASS will publish the *Flour Milling Products* report with data that will inform estimates of wheat food use in the second quarter and associated adjustments to annual food use and domestic utilization.

Based on the *Winter Wheat and Canola Seedings* report, seed use for the 2020/21 marketing year is raised 1 million bushels to 63 million. Expanded sowings of winter wheat for the 2021/22 marketing year support an increase in seed use. Forthcoming updates to planted area forecasts for other spring and durum wheat, along with NASS-provided revisions to winter wheat sowings, will inform further seed use updates.

Sharply Higher Grain and Oil Crops Prices Lift U.S. Wheat Prices

Futures prices for wheat, corn, and soybeans have been generally rising since August 2020. This six-month trend of rising prices accelerated in recent weeks with even stronger futures price gains (fig. 3). For example, the Chicago Mercantile Exchange's (CME) HRW (11.5 % protein) contract rose 72 cents per bushel or 13 percent during the 30-day period prior to January 12, 2021. CME's corn and soybean contracts rose 98 cents and \$2.69 per bushel, respectively, or approximately 23 percent each, during the same 30-day period. Bullish price movements for the big three U.S. row crops—wheat, corn, and soybeans—have been stimulated by tightening supplies coupled with strong demand from export markets, most notably China. Additionally, dry conditions in key areas of corn and soybean production in South America have reduced production prospects and provided strength to associated U.S. commodity prices.

Corn, wheat price per bushel Soybeans, price per bushel \$6.50 \$16 US Hard red winter wheat US No. 2 yellow corn —US No. 2 yellow soybeans \$6.00 \$14 Soybean price series \$5.50 \$12 \$5.00 \$10 \$4.50 \$8 \$4.00 \$6 \$3.50 \$4 \$3.00 \$2 \$0

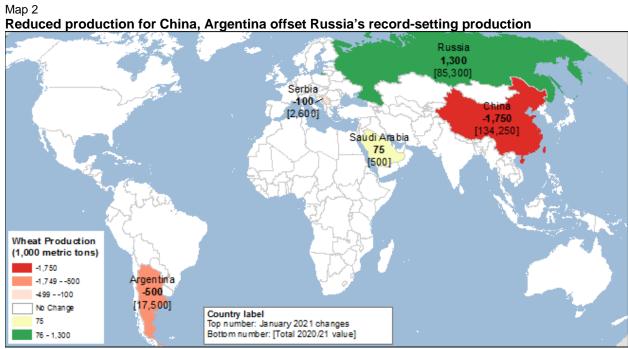
Figure 3
Futures prices for major U.S. row crops trending strongly up in the last six months

Notes: All prices reported are dollars per bushel. Sources: Chicago Mercantile Exchange and USDA, Economic Research Service calculations.

International Outlook

Smaller Crops for Argentina and China Offset Record-High Wheat Production for Russia

Global wheat production is lowered a little more than one million metric tons this month to 772.64 million but remains nearly 9 million tons above the 2019/20 production estimate and record large. Reductions of 1.75 million and 0.5 million metric tons, for *China* and *Argentina's* respective 2020/21 wheat harvests combine to more than offset an increase of 1.30 million for Russia (map 2). For China, reduced harvested area suppresses the production boosting effect of record-high wheat yields, raised from 5.67 metric tons per hectare to 5.74 based on government statistical data. For Argentina, lower production is attributed to both reduced yields and harvested area. Yield cuts are attributable to earlier drought conditions that negatively affected the wheat crop during grain fill. As harvest progressed and moved beyond regions that were most profoundly affected by dryness, yields improved—especially in areas in and around Buenos Aires.



Sources: USDA, Foreign Agricultural Service *Production and Supply Distribution* database and USDA, Economic Research Service calculations.

Recently released production data from *Russia's* statistical agency, ROSSTAT, provided preliminary all wheat production estimates for the 2020/21 marketing year. On net, Russia's wheat crop is raised 2 percent from the previous forecast to a record-high 85.3 million metric

tons. Both winter and spring wheat crops are raised; winter wheat is up nearly 2 percent and 1 million metric tons on a yield of 0.07 metric tons per hectare. Spring wheat production is raised 1 percent on a modest increase in yields, while harvested area remains unchanged. Collectively, Russia's wheat yields are estimated at 2.98 tons per hectare, an 11 percent increase from the prior year's yield. USDA's wheat projections for Russia do not include Crimea. For more information, please see this month's USDA, FAS *World Agricultural Production*.

Consumption Raised Slightly

2014/15

2015/16

2016/17

Global wheat consumption is raised 1.7 million tons to 759.5 million primarily driven by *China*, the *United States*, and *Russia*. Feed and residual use in *China* is up 1 million tons from the December forecast to 25 million (fig. 4).

Feed use, million metric tons Wheat-to-corn price ratio Wheat feed use 30 1.6 Average wheat-corn price ratio 1.4 25 1.2 20 1 8.0 15 0.6 10 0.4 5 0.2 0 0

Figure 4: Prospects for China's 2020/21 wheat feed use raised on highly competive relative wheat prices

Source: USDA Foreign Agricultural Service, *Production, Supply, and Distribution* database. 2020/21 production is forecast (f). 1/Wheat and corn prices are reported on marketing years.

2017/18

2018/19

2019/20

20_{20/21f}

China's government auction activity over the last several months suggests efforts to liquidate stocks of old-crop wheat, much of which is several years old. As the marketing year has progressed, China's domestic wheat prices have become increasingly competitive as its domestic corn prices soared with tightening supplies. Industry reports noted that feed compounders bought wheat as a substitute for corn.

Feed and residual use is also raised for the United States and is forecast up 680,000 tons to 3.4 million based on smaller-than-expected December 1 stocks as reported in the latest *Grain Stocks* report from USDA, National Agricultural Statistics Service (NASS). Also contributing to

stronger global consumption, Food, Seed, and Industrial (FSI) use for *Russia* is projected up 500,000 metric tons to 23.5 million.

Global Trade Raised Marginally on Gains for the EU and India

Global trade is fractionally larger at 192.5 million tons on a trade year basis as increased exports for *Canada*, the *European Union*, and *India* more than offset reduced exports for *Russia* and *Argentina*. Global imports for *China* and *Jordan* are raised, more than offsetting reductions for *Algeria* and the *United Arab Emirates*. China's projected imports are raised 500,000 tons to 9 million tons, which would be the largest amount imported since 1995/96. Amid rising domestic corn prices, China's demand for imported wheat remains strong for both food and feed uses.

Exports for *Russia* are lowered 1 million tons to 39 million this month because of forthcoming export restrictions that are intended to curb domestic food price inflation. On December 15, 2020, Russian Government officials announced that between February 15 to June 30, 2021, exports of specific grains, including wheat, rye, barley, and corn, will be limited toa quota of 17.5 million tons. Under the current specifications of the quota, all classes of wheat will face an export tax of 25 euros per ton; exports above the quota it will be taxed at 50 percent of the free on-board value and not less than 100 euros per ton. In mid-January, Russia's Agricultural Ministry proposed an increase in the wheat export tax from 25 euros per ton to 45 euros starting on March 15. At this time, it is not known if this higher export tax will be imposed.

With Russia's shipments reduced, the *European Union* is expected to be the main beneficiary, with exports forecast up by 500,000 metric tons to 26.5 million. Exports for *Canada* are projected up 500,000 metric tons to 26.5 million based on a robust pace of trade to date and increased opportunities to export to China. Exports for *Argentina* are cut 500,000 metric tons to 12 million based on a reduced crop as well as shipping delays during December, related to strikes by port grain inspectors and farmers. The pace of sales has recently accelerated based on market expectations that the government may raise the export tax on wheat. Exports for *India* are projected up 800,000 metric tons to 1.8 million as its domestic prices have become relatively competitive globally based on large domestic supplies and rising international prices. Shipments are expected to mainly go to regional markets such as Bangladesh, Nepal, and the United Arab Emirates.

With global production cut slightly and consumption raised marginally, global ending stocks are lowered 3.3 million tons this month to 313.2 million but remain record high. Despite recent auction activity, China is still estimated to hold the majority (51 percent) of global wheat stocks.

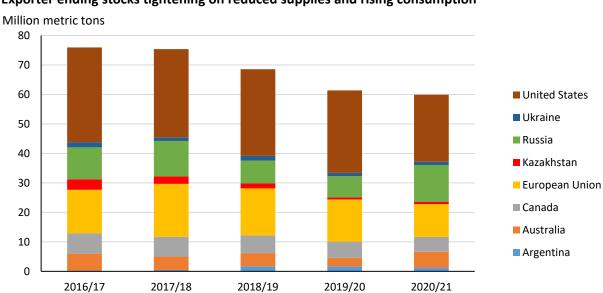


Figure 5
Exporter ending stocks tightening on reduced supplies and rising consumption

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

India is projected as the second largest holder of stocks, accounting for 10 percent of the total. Stocks held by exporters are often considered a relevant point of analysis as these are the stocks that are more available to the world market and more readily affect prices. To that end, stocks held by the top 8 exporters are projected down slightly in 2020/21 to the lowest level since 2013/14 (fig. 5). Tightening expectations for stocks are a major factor contributing to recent strengthening of global wheat prices.

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