



Wheat Outlook: April 2023

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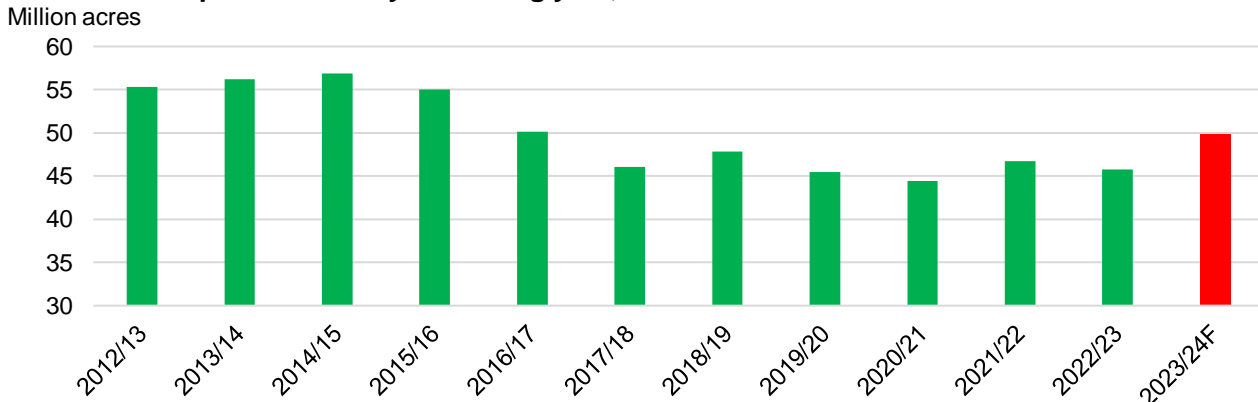
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U.S. Wheat Planted Area Projected at 7-Year High

USDA’s National Agricultural Statistics Service (NASS) released its *Prospective Plantings* report on March 31, estimating U.S. 2023/24 wheat planted area up 9 percent from the previous year to 49.9 million acres, which would be the highest since 2016/17 (figure 1). Total winter wheat area is projected up 13 percent with high prices and strong profitability providing major incentives to plant. Hard Red Winter (HRW) area is projected up 13 percent to 26.0 million acres, even higher than forecasted in the January 12 *Winter Wheat and Canola Seedings* report. HRW production regions continue to be impacted by drought, which is likely to affect harvested area and yield. Soft Red Winter plantings are forecast up 19 percent from the previous year to 7.8 million acres, slightly below what was forecast in January. All White wheat acreage is forecast up about 2 percent from the previous year. Hard Red Spring (HRS) area is projected down 3 percent to 10.0 million acres, but the area planted for this class depends on planting conditions. Wet conditions delayed HRS plantings last year and prevented some acres from being planted. Durum acreage is projected up 9 percent from last year to 1.8 million acres.

Figure 1
U.S. all-wheat planted area by marketing year, 2012/13–2023/24



F: Denotes forecast based on Prospective Plantings report. Data presented for previous years are final.
 Source: USDA, National Agricultural Statistics Service.

Domestic Outlook

Domestic Changes at a Glance:

- 2022/23 all-wheat exports are unchanged from the previous month at 775 million bushels, which would be the lowest since 1971/72 (table 1). U.S. prices remain mostly uncompetitive with other major global suppliers. The pace of new sales continues to be relatively slow, as reported in the USDA, Foreign Agricultural Service (FAS) *U.S. Export Sales*. By-class adjustments have been made based on the pace of export sales and shipments. White wheat exports are raised 10 million bushels to 200 million, while Hard Red Spring (HRS) is reduced 10 million bushels to 220 million.
- U.S. wheat exports for June 2022 through February 2023 reached 604 million bushels, down 2 percent from the same period last year. Official U.S. wheat trade statistics for June through February are based on data from the U.S. Department of Commerce, Bureau of the Census. The pace of exports appears to be slower for the month of March, based on export inspections data from the USDA, Federal Grain Inspections Service, as well as export sales data reported by USDA, FAS.
- U.S. wheat imports for 2022/23 are raised 5 million bushels to 125 million, up from 95 million in 2021/22. U.S. wheat imports for June 2022 through February 2023 totaled 92 million bushels, accounting for 74 percent of the revised marketing year projection. Imports for these 9 months are up 31 percent from the same period last year. Based on the pace of trade, Durum imports are up 4 million bushels to 54 million, while White wheat imports are raised 1 million bushels to 6 million.
- U.S. all-wheat seed use is unchanged at 70 million, but there are by-class adjustments based on updated analysis of data from the USDA, NASS *Prospective Plantings* report. Hard Red Winter (HRW) is projected up 0.9 million bushels to 29.2 million, while Durum is raised 0.3 million bushels to 2.8 million. Conversely, HRS is lowered 0.8 million to 17.2 million and Soft Red Winter (SRW) is reduced 0.4 million bushels to 14.8 million.
- Feed and residual use is lowered 25 million bushels to 55 million based on lower implied disappearance during the second and third quarters of the marketing year, based on analysis of the USDA, National Agricultural Statistics Service *Grain Stocks* report. By-class changes are the following: HRW up 10 million bushels to 20 million; SRW up 15 million bushels to 65 million; White down 30 million bushels to -25 million; and Hard Red Spring down 10 million bushels to -10 million.

- The 2022/23 season-average farm price is lowered \$0.10 to \$8.90 per bushel but remains a record high. This change is based on NASS prices reported to date and expected futures and cash prices for the remainder of the marketing year. The February 2023 farm price reported in the USDA, NASS *Agricultural Prices* publication was \$8.53 per bushel, down from \$8.82 in January 2023.

Table 1
U.S. wheat supply and use at a glance, 2021/22 and 2022/23 (in million bushels)

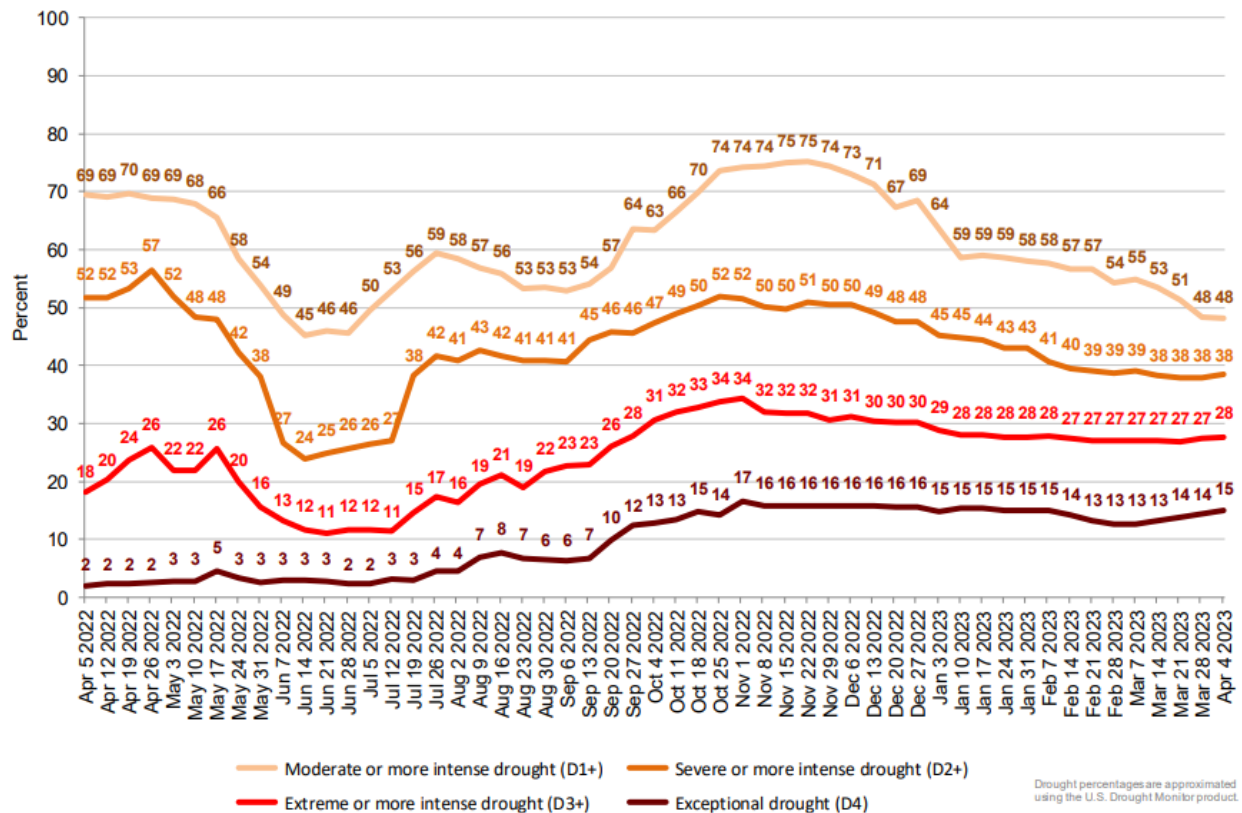
Balance sheet item	2021/22 April	2022/23 March	2022/23 April	Month-to-month change	Comments
Supply					June-May marketing year
Beginning stocks	845	698	698	0	
Production	1,646	1,650	1,650	0	
Imports	95	120	125	+5	Based on the strong pace of imports
Supply, total	2,587	2,468	2,473	+5	
Demand					
Food	972	975	975	0	
Seed	58	70	70	0	
Feed and residual	59	80	55	-25	Larger-than-expected March 1 wheat stocks and upward revision of December 1 stocks reported in the USDA, National Agricultural Statistics Service <i>Grain Stocks</i> report
Domestic, total	1,088	1,125	1,100	-25	
Exports	800	775	775	0	Smallest wheat exports since 1971/72; slow pace of sales and shipments with uncompetitive pricing in global wheat markets
Use, total	1,888	1,900	1,875	-25	
Ending stocks	698	568	598	+30	Ending stocks still the lowest since 2013/14
Season-average farm price	\$7.63	\$9.00	\$8.90	-\$0.10	In spite of reduction, season-average farm price still record high

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

2023/24 Winter Wheat Update

Drought continues to be a major issue for winter wheat production with 48 percent of the production estimated to be in regions experiencing drought as of April 4 (figure 2). Much of the remaining drought area is in HRW-producing States. This percentage peaked at 75 percent in November and has generally trended lower over the last few months. At this point last year, 69 percent of winter wheat production was in regions of drought, but notably the share wheat acreage that is currently located in areas of extreme to exceptional drought is higher than last year. While drought concerns have eased in some growing areas, others have seen intensifying conditions as the cumulative results of consecutive drought years become more apparent.

Figure 2
Percent of United States winter wheat located in drought

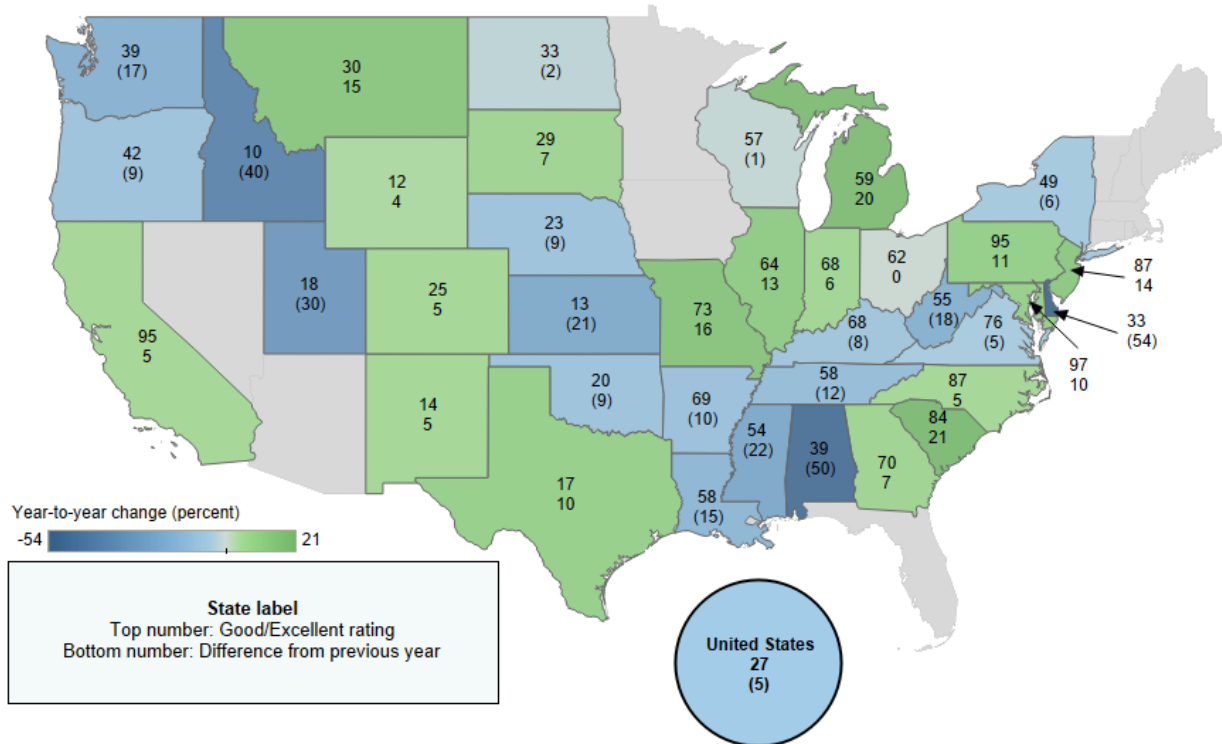


Note: Drought percentages are approximated using the U.S. Drought Monitor product.
 Source: USDA, World Agricultural Outlook Board, Agricultural Weather and Assessments Group.

USDA, NASS started publishing weekly crop conditions ratings for winter wheat in early April after coverage was limited throughout the winter months. Conditions as of April 9, 2023, show that U.S. winter wheat is 27 percent good/excellent, down from 32 percent at the same point last

year. This percentage is tied with 1996 for the lowest percentage good/excellent ratings at this point in the marketing year in the history of this dataset, which began in 1988. Conditions across key producing States present mixed trends (figure 3). Among the major HRW-producing States, Texas, Montana, and Colorado are improved from last year, while Kansas, Oklahoma, and Nebraska have a lower percentage in good and excellent condition due to persistent drought. Throughout the SRW-producing States in the eastern half of the country, conditions are mixed relative to last year, but still mostly favorable overall. Conditions in White-wheat producing States of the Pacific Northwest are lower than last year. It should be noted that crop conditions at this early phase have a limited correlation to final yields, with spring rainfall being critical to yield determination.

Figure 3
Winter wheat crop conditions ratings by State as of April 9, 2023



Note: This chart compares week 14 data of 2023 with the same week in 2022 (April 10, 2022). States in gray are not reported. Source: USDA, Economic Research Service calculations using data from USDA, National Agricultural Statistics Service.

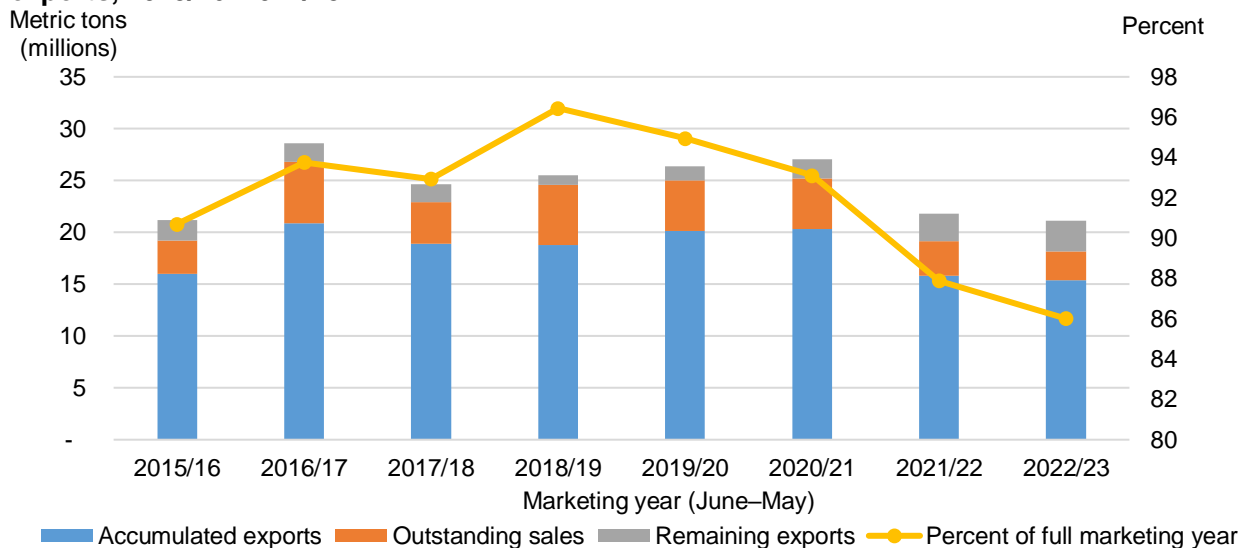
U.S. Trade Pace Update

U.S. wheat export commitments, as reported by USDA, Foreign Agricultural Service (FAS) in the *U.S. Export Sales* report, are at 18.1 million MT as of March 30, down 5 percent from the same time last year. Total commitments at this point represent 86 percent of the projected full

marketing year total (figure 4), below recent years at this point. Accumulated exports as of March 30 are down 3 percent from last year, while outstanding sales are down 18 percent.

Figure 4

Cumulative exports sales through March 30 and full marketing year exports, 2015/16–2022/23

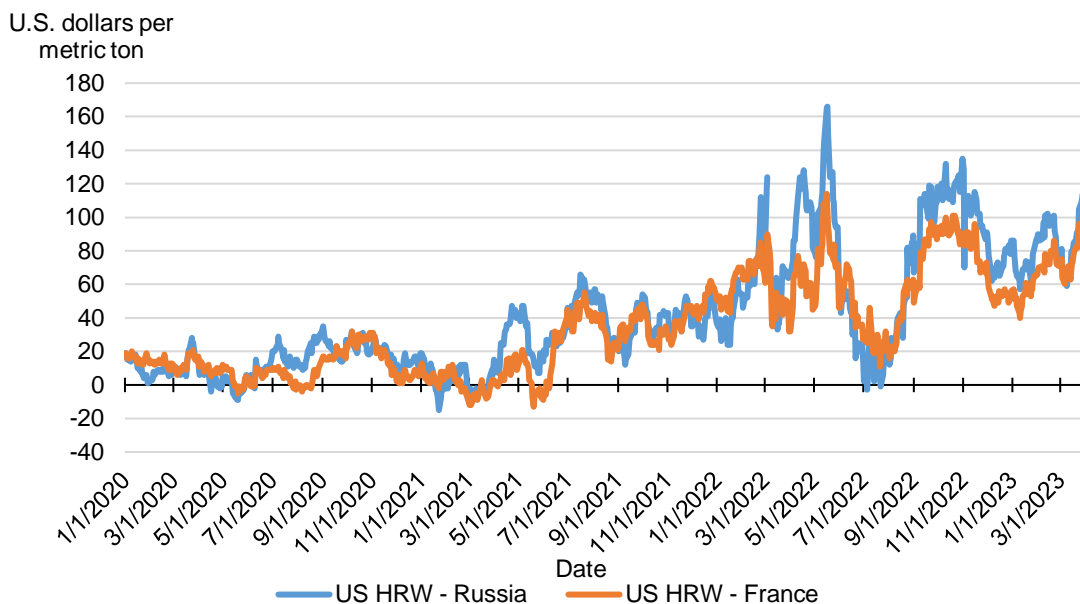


Note: Accumulated exports and outstanding sales are as of week 44, exact dates vary by year. Remaining exports is the difference between total commitments as of that date (based on USDA, Foreign Agricultural Service, *U.S. Export Sales* data) and the full marketing year exports (calculated based on data from U.S. Department of Commerce, Bureau of the Census). Remaining exports for 2022/23 are calculated based on the current export forecast for the year.
 Source: USDA, Economic Research Service calculations; USDA, Foreign Agricultural Service, *U.S. Export Sales*; U.S. Department of Commerce, Bureau of the Census.

With many U.S. HRW production areas continuing to be affected by drought, HRW prices remain elevated, making it less competitive with other export origins, such as Russia and France (figure 5). This pricing disadvantage contributes to the slow sales of U.S. wheat. While the pace of U.S. export sales has been weak, this data do not include food aid donations, which – in a marketing year with relatively low exports such as 2022/23 – account for a larger share of the total exports. Accumulated food aid donations during the 2022/23 marketing year (data reported through April 4, 2023) amount to 890,190 metric tons, as reported by USDA, Foreign Agricultural Service *U.S. Export Sales*. Hard Red Winter makes up 58 percent (517,270 metric tons) of this total, while White wheat represents the rest (372,920 metric tons). The final export statistics are calculated by USDA, Economic Research Service (ERS) based on data from U.S. Department of Commerce, Bureau of the Census. These calculations include food aid shipments and flour and product exports, converted to wheat-grain equivalent.

Figure 5

Price spread between U.S. Hard Red Winter and key competitors, 2020–23



HRW = Hard Red Winter.

Notes: This chart depicts the freight-on-board (FOB) price difference between U.S. HRW and Russian wheat. The quotes used are U.S. Hard Red Winter, 11.5 percent protein, Gulf of Mexico; Black Sea 11.5 percent protein; and France, Grade 1, Rouen. Quotes are daily.

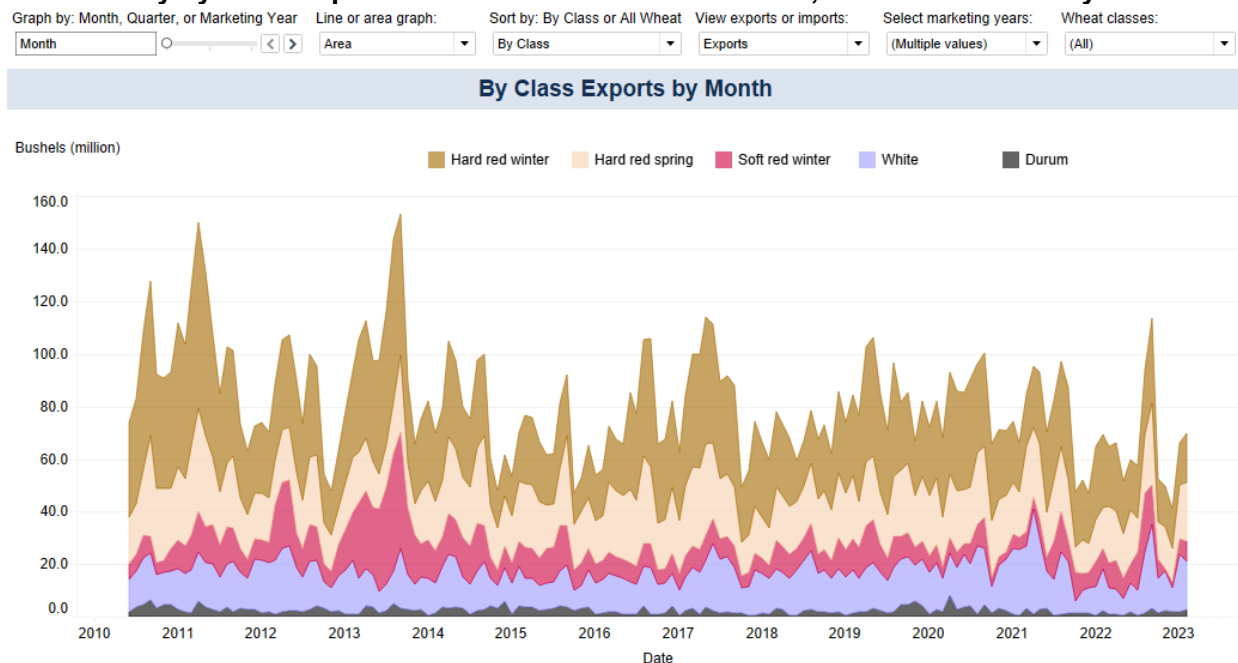
Source: USDA, Economic Research Service calculations using data from the International Grains Council.

Wheat Data Visualization Released

April 3, 2023, USDA Economic Research Service (ERS) released the *Wheat Data Visualization* – a new interactive program to explore a wide array of data included in ERS' Wheat Data product. The program is available on the ERS website and can work across all devices with mobile-friendly options. It provides users with access to overviews for the U.S. by-class and quarterly supply and disappearance data found in the Wheat Data product and the Historical By-Class Quarterly data. The program also has monthly domestic and international price data, monthly trade data by class (by class and product grouping), interactive maps of U.S. export markets, and a feature for mapping changes to the data from the USDA, Foreign Agricultural Service (FAS) Production, Supply and Distribution database. This visualization contains six dashboards that a user can flip through by using the navigation icons at the top of each dashboard. One of these dashboards, the Trade Data By-Class dashboard features monthly, quarterly, and marketing year data on U.S. exports of wheat by class (figure 6).

Figure 6

U.S. monthly by-class exports from Wheat Data Visualization, June 2017–February 2023



Source: USDA, Economic Research Service, *Wheat Data Visualization*.

The visualization will be updated monthly in tandem with the updates to the Wheat Data product, which is published the day after the *WASDE*. The visualization includes calculations and data from a variety of data sources, including the *WASDE*, U.S. Department of Commerce, Bureau of the Census, USDA, National Agricultural Statistics Service, and several other sources.

By-Class Stocks Estimates

USDA, NASS released updated stocks estimates on March 31, 2023 in its *Grain Stocks* report. The report provided the first estimate of March 1, 2023 wheat stocks as well as updated data for December 1, 2022 stocks. March 1 all-wheat stocks are estimated at 946 million bushels, down 8 percent from a year ago. Durum stocks as of that date are estimated at 35.8 million bushels, up 18 percent from last year. USDA, Economic Research Service estimates stock levels for the other classes partly based on analysis of State-level data from NASS. HRW stocks are down the most year over year with drought affecting 2022/23 production substantially. SRW production was not affected by drought this season, but domestic use was higher partly driven by tight HRW supplies and relatively low prices of SRW. Conversely, stock levels for HRS and White are estimated higher as their 2022/23 production was substantially larger than last year's

drought-impacted crops. USDA, NASS revised December 1 all-wheat stocks up 31.7 million bushels to 1,311.8 million with the bulk of that adjustment being off-farm stocks in Washington. Most of the upward revision for December 1 is allocated to White wheat, the primary class produced in Washington. This large revision to White wheat stocks results in a negative feed and residual estimate for this wheat class in the 2022/23 marketing year.

Table 2

U.S. wheat stocks by-class estimates, March 1, 2023 and December 1, 2022, million bushels

	March 1, 2023	Year-to-year change (Percent)	December 1, 2022		
	Estimate		Updated estimate	Previous estimate	Revision
Hard Red Winter	353.2	-29	499.8	497.1	2.7
Hard Red Spring	274.0	14	369.0	366.0	3.0
Soft Red Winter	148.0	-9	206.0	206.0	0.0
White	135.0	35	189.0	163.0	26.0
Durum	35.8	18	48.1	48.1	0.0
All wheat	946.0	-8	1,311.8	1,280.2	31.7

Source: USDA, Economic Research Service calculations using data from USDA, National Agricultural Statistics Service.

The by-class quarterly spreadsheet for 2022/23 is updated this month to revise the first and second quarters based on the *Grain Stocks* report and small adjustments to seed use. The next release of the by-class quarterly data will be after the May *WASDE* to include the third quarter of the marketing year, once food use data is available. The stock estimates provided here for the four non-Durum classes are still subject to change in that data release.

International Outlook

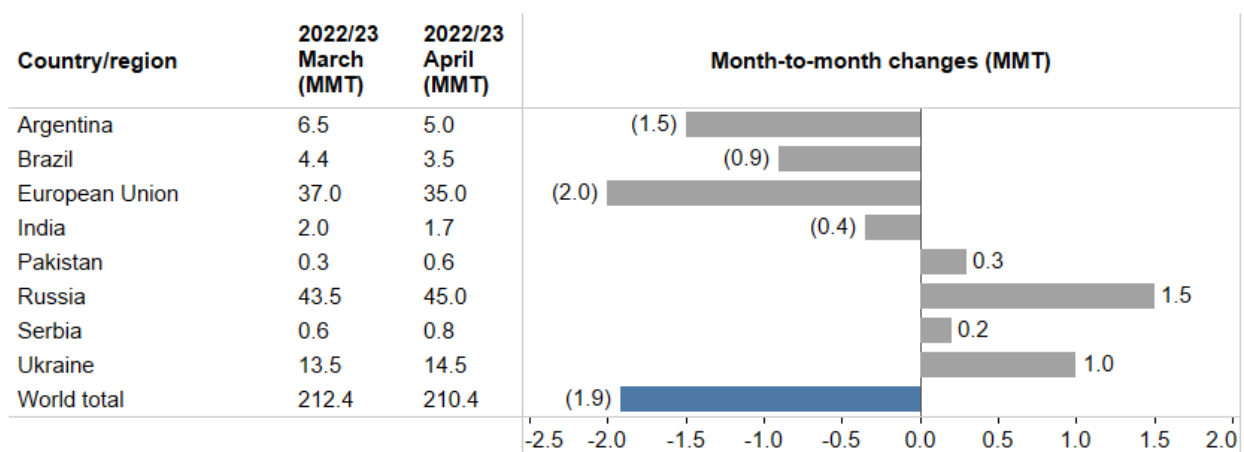
International Changes at a Glance:

- The 2022/23 global wheat production is marginally up 0.1 million metric tons (MMT) to 789.0 MMT driven with an increase for **Ethiopia** (+1.3 MMT to 7.0 MMT) offset by reductions for the **European Union** (EU) (-0.4 MMT to 134.3 MMT), **Saudi Arabia** (-0.4 MMT to 0.6 MMT), **Argentina** (-0.4 MMT to 12.6 MMT), and **Zimbabwe** (-0.1 MMT to 0.2 MMT) based on updated government statistics and Foreign Agriculture Services' *Grain and Feed* reports.
 - Ethiopia expanded wheat area to 2.3 million hectares which is 18 percent higher than in 2021/22 resulting in a higher domestic production at 7.0 MMT. Yields are also projected to reach a record high 3.04 metric tons per hectare.
 - Final estimates from the Ministry of Agriculture peg Argentina wheat production at 12.6 MMT, down 0.4 MMT from March and 9.6 MMT lower than 2021/22.
- Global wheat consumption for 2022/23 is up 2.0 MMT to 789.6 MMT. To match global consumption presented in the *World Agricultural Supply and Demand Estimates* (WASDE) report, adjusted this consumption statistics adds the differences between exports and imports on a local marketing year (MY) basis. This difference, or the unaccounted trade, is raised 0.9 MMT to 6.4 MMT for 2022/23 as MY imports are lowered more than MY exports. Total consumption plus unaccounted trade results in an adjusted consumption of 796.1 MMT, up 2.9 MMT from the March estimate.
- Feed and residual use is up 1.8 MMT to 160.3 MMT driven by 2.0 MMT increases for both the **European Union** (47.0 MMT) and **China** (32.0 MMT). The EU is importing more feed-quality wheat from Ukraine, while China has already received more than 4.3 MMT from Australia from July through February.
 - Partially offsetting these revisions are reductions for **Russia** (-1.0 MMT to 20.5 MMT) and **United States** (-0.7 MMT to 1.5 MMT)
- Food, seed, and industrial (FSI) use is up 0.2 MMT to 629.3 MMT. FSI use is raised for **India** (+2.3 MMT to 101.8 MMT) as it continues to release wheat out of its government stocks resulting in higher consumption and lower stocks. **Indonesia** is lowered 0.5 MMT to 8.4 MMT as high international wheat prices has limited its imports and consumption of wheat. **Philippines** and **Russia** are also lowered 0.5 MMT each to 3.2 MMT and 23.5 MMT. For more information on the Philippines see the latest market feature in the *Grain: World Markets and Trade* by the USDA, Foreign Agriculture Service.

- Exports for the 2022/23 trade year (July/June) are lowered 1.9 MMT to 210.4 MMT driven by a 2.0 MMT decrease for the **EU** to 35.0 MMT and a 1.5 MMT decrease for **Argentina** to 5.0 MMT. Slow pace of exports results in a decrease for **Brazil's** trade year (TY) exports (-0.9 MMT to 3.5 MMT). These are partially offset with an increase for **Russia** and **Ukraine** given the fast pace of trade and extension of the *Black Sea Grain Initiative* (figure 7).
 - The EU has exported just over 25.5 MMT through March utilizing official customs and surveillance data. Trade pace as slowed in recent months with more competition from the Black Sea region, resulting in a lower overall projection (-2.0 MMT to 35.0 MMT).
 - Ukraine has exported more than 13.0 MMT of wheat from July through March, averaging about 1.4 MMT a month. Russian exports are forecast at a record 45.0 MMT based on record production and strong pace of shipments to Egypt and Turkey.

Figure 7

Month-to-month change in 2022/23 wheat trade year exports, April 2023



MMT=million metric tons

Note: Changes less than 200,000 metric tons are not included; month-to-month change is the difference between April 2023 and March 2023 estimates.

Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, *Production, Supply and Distribution* database.

- Trade year (TY) imports are lowered 2.1 MMT to 206.1 MMT with reductions for **Indonesia, Ethiopia, Iran, and Nigeria**. These are partially offset with increases for **China** and the **EU** that are explained in the next section. For all TY import changes see the International Overview on the ERS' Wheat Data Visualization found with the Wheat Data product.
 - High international wheat prices have limited Indonesia's consumption of wheat resulting in a slow pace of imports so far this trade year (-1.0 MMT to 10.0 MMT).

- Larger domestic production reduces Ethiopia's need to import (-0.6 MMT to 0.9 MMT).
- Iran and Nigeria are both revised down 0.5 MMT to 4.0 MMT and 5.5 MMT, respectively as shipments from Russia are less than anticipated.
- Global ending stocks for 2022/23 are down 2.1 MMT to 265.1 MMT, the lowest since 2015/16, because of a decline in ending stocks for **India** (-2.1 MMT to 10.5 MMT) and the **Philippines** (-1.0 MMT to 1.2 MMT) only partially offset with an upward revision for the major exporters¹ (+1.1 MMT to 60.3 MMT). World minus China stocks are at 125.5 MMT, the lowest since 2008/09 (table 3).
 - **Ukraine's** ending stocks are lowered 0.8 MMT to 3.3 MMT on larger exports. Based on lower domestic feed and residual use, the **United States** ending stocks are revised up 0.8 MMT to 16.3 MMT. These are partially offset by an increase for the **European Union** of 1.1 MMT to 12.2 MMT on lower exports, but higher imports.
- India stocks are revised down as the Government of India has released about 3.4 MMT from government stocks to tame domestic prices. According to the Food Corporation of India, 11.7 MMT is in government stocks as of March 1.

Table 3

Global 2022/23 wheat supply and use at a glance (in metric tons, million)

Balance sheet item	2021/22 April	2022/23 March	2022/23 April	Month-to- month change
Supply				
Beginning stocks	286.3	271.4	272.1	0.6
Production	779.1	788.9	789.0	0.1
Trade year imports	201.0	208.2	206.1	(2.1)
Demand				
Feed and residual use	161.5	158.5	160.3	1.8
Food, seed, and industrial use	628.2	629.2	629.3	0.2
Domestic, total use	789.7	787.7	789.6	2.0
Trade year exports	205.4	212.4	210.4	(1.9)
Ending stocks	272.1	267.2	265.1	(2.1)
Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, <i>Production, Supply and Distribution</i> database.				

¹ Argentina, Australia, Canada, Kazakhstan, Russia, Ukraine, United States, and the European Union

China, EU, Feed and Residual Use is Up, Leading to Stronger Imports

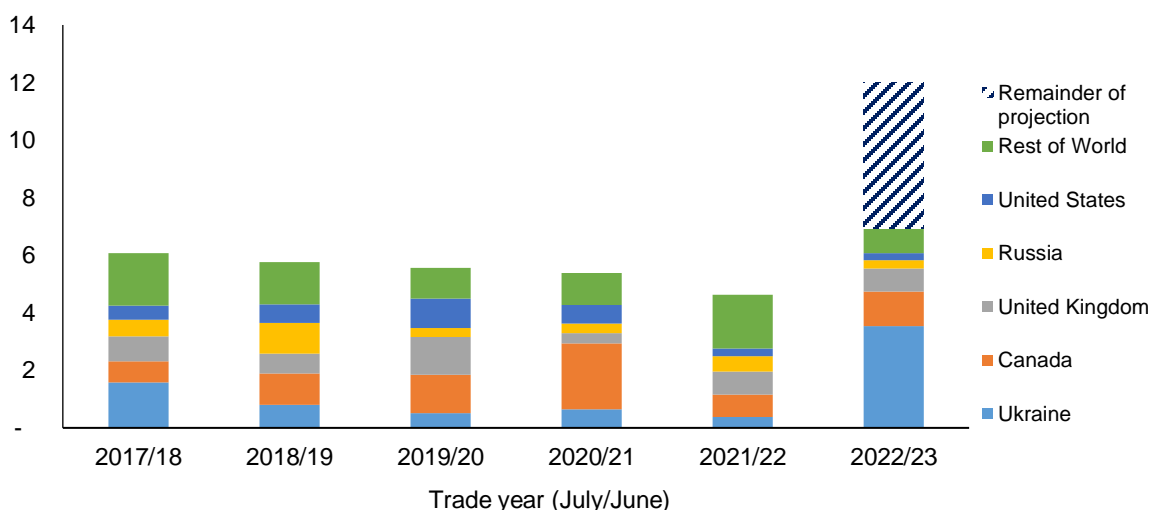
Import pace has been strong for both China and the European Union (EU). Both countries show indications of additional wheat feeding with large imports from countries with feed-quality wheat and milling wheat is priced below China's domestic feed grains. China's feed and residual use is revised up 2.0 MMT to 32.0 MMT. It has received more than 4.0 MMT from Australia from July through February, which is 66 percent more than China received in the same period in 2021/22. Trade year (TY) imports for China are revised up 2.0 MMT to 12.0 MMT as they are averaging 1.0 MMT a month. Australia has larger exportable supplies this year and a larger-than-normal portion of its exports are feed-quality due to rains late in the season. China is forecasted to be the leading global wheat importer in 2021/22. For more information on China see the latest cover of the *Grain: World Markets and Trade* by the USDA, Foreign Agriculture Service.

European Union feed and residual use is revised up 2.0 MMT to 47.0 MMT as large shipments from Ukraine shows signs of stronger consumption of feed wheat. From July-January, the EU has imported 6.9 MMT with more than half coming from Ukraine (figure 8). Imports for the EU are revised up 1.5 MMT to 10.5 MMT, 5.0 MMT higher than the five-year average.

Figure 8

European Union's imports by supplier from July–January, 2017/18 –2022/23

Metric tons, million



Note: By country breakdown is trade from July through February and the grey bar showcases the remainder of the projection at this point in the year.

Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, *Production, Supply and Distribution* database; Trade Data Monitor.

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