



Wheat Outlook: August 2022

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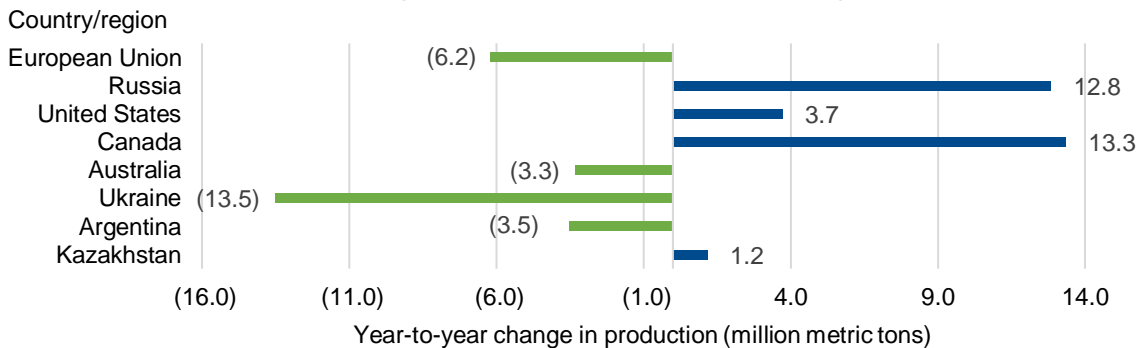
In this report:

- [Domestic Outlook](#)
- [International Outlook](#)

Large Production Swings for Wheat Exporters

Global 2022/23 wheat production is revised to a record 779.6 million metric tons (MMT), up slightly from 2021/22. Russia, Canada, and the United States are all expected to recover from their production issues last year. Production for Russia is raised to a record 88.0 MMT. The Canadian Prairies have received ample rains this growing season to recover from the devastating drought in 2021/22. The U.S. Northern Plains and Pacific Northwest have recovered from major drought last year, but year-to-year growth in production is constrained by drought in the Southern Plains. On the other hand, Argentina and Australia are projected down from their record production in 2021/22. A major heat wave has limited the European Union’s yield potential resulting in a 6.2 MMT decrease from 2021/22. The ongoing conflict in Ukraine creates a challenge for producers to harvest and growing conditions have been below average which has limited yield potential.

Figure 1
Year-to-year production swings for major wheat exporters, August 2022



Note: The major wheat exporters are sorted by largest to smallest production.
 Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, *Production, Supply and Distribution* database.

Domestic Outlook

Domestic Changes at a Glance:

- U.S. wheat production is forecast at 1.783 billion bushels (table 1), up 2 million bushels from the July forecast. USDA's National Agricultural Statistics Service (NASS) provided updated 2022/23 production estimates for all classes of U.S. wheat in its August 12 *Crop Production* report.
- Hard Red Winter (HRW) production is forecast at 576 million bushels, down 9 million from the July estimate and down 23 percent from last year.
- Soft Red Winter (SRW) production is projected at 381 million bushels, up 6 million from last month and 6 percent higher than last year to the highest level in 8 years.
- White wheat production is projected at 289 million bushels, up 3 million from the July estimate and 44 percent higher than last year's drought-stricken crop. Production for Soft White Winter, Soft White Spring, and Hard White Spring are all improved from a year ago based on conditions in the Pacific Northwest (Washington, Idaho, and Oregon). Hard White Winter production is lower than last year with most of that production in drought-affected regions of the Great Plains (mainly Kansas and Colorado).
- Hard Red Spring (HRS) is up 6 million bushels to 463 million and 56 percent higher than last year.
- Durum is reduced 4 million bushels to 74 million, which is still nearly double the crop size of the previous year. USDA, NASS revised area harvested lower in North Dakota as a result of a resurvey. Yield is raised marginally to 40.4 bushels per acre. Note that area harvested for the other four classes is unchanged this month, so production changes for those classes are solely due to revised yield estimates.
- 2022/23 all-wheat exports are projected at 825 million bushels, up 25 million from the previous month on relatively competitive pricing and strong global demand. SRW and White shipments are projected up 10 million bushels each to 135 million and 180 million with both of these classes competitively priced with other key exporters. HRS is raised 5 million bushels to 235 million on larger domestic supplies.
- The 2022/23 season-average farm price (SAFP) is projected at \$9.25 per bushel, down \$1.25 from the previous month, but still a record. Futures prices have continued to dip this month on expected higher production and concerns of slowing economic conditions. The June 2022 all-wheat price received was estimated at \$9.55 in the July 29 USDA, NASS

publication *Agricultural Prices*, down from \$10.90 in May 2022, but up substantially from \$6.23 in June 2021.

- Food use is revised 10 million bushels higher to 972 million for 2021/22 based on final data from the USDA, NASS *Flour Milling Products* report, published on August 1. This report indicated April–June wheat ground for flour was the highest on record for that quarter. Consequent to stronger 2021/22 consumption, expected 2022/23 food use is raised 6 million bushels to 970 million. See later section for more details.
- See table 1 for details on U.S. supply and distribution.

Table 1					
U.S. wheat supply and use at a glance 2022/23 (in million bushels)					
Balance sheet item	2021/22 August	2022/23 July	2022/23 August	Month-to-month change	Comments
Supply					June-May marketing year
Beginning stocks	845	660	660	0	
Production	1,646	1,781	1,783	+2	Updated production data from USDA, National Agricultural Statistics Service (NASS) showing larger production for Other Spring wheat, more than offsetting smaller Durum and Winter wheat crops.
Imports	95	110	110	0	
Supply, total	2,586	2,551	2,553	+2	
Demand					
Food	972	964	970	+6	Food use raised for both 2021/22 and 2022/23 based on the latest data from the USDA, NASS <i>Flour Milling Products</i> report.
Seed	60	68	68	0	
Feed and residual	94	80	80	0	
Domestic, total	1,126	1,112	1,118	+6	
Exports	800	800	825	+25	Competitive pricing relative to key competitors and expectations for stronger global demand.
Use, total	1,926	1,912	1,943	+31	
Ending stocks	660	639	610	-29	
Season-average farm price	\$7.63	\$10.50	\$9.25	-\$1.25	Weaker futures prices in recent months.
Source: USDA, World Agricultural Outlook Board, <i>World Agricultural Supply and Demand Estimates</i> .					

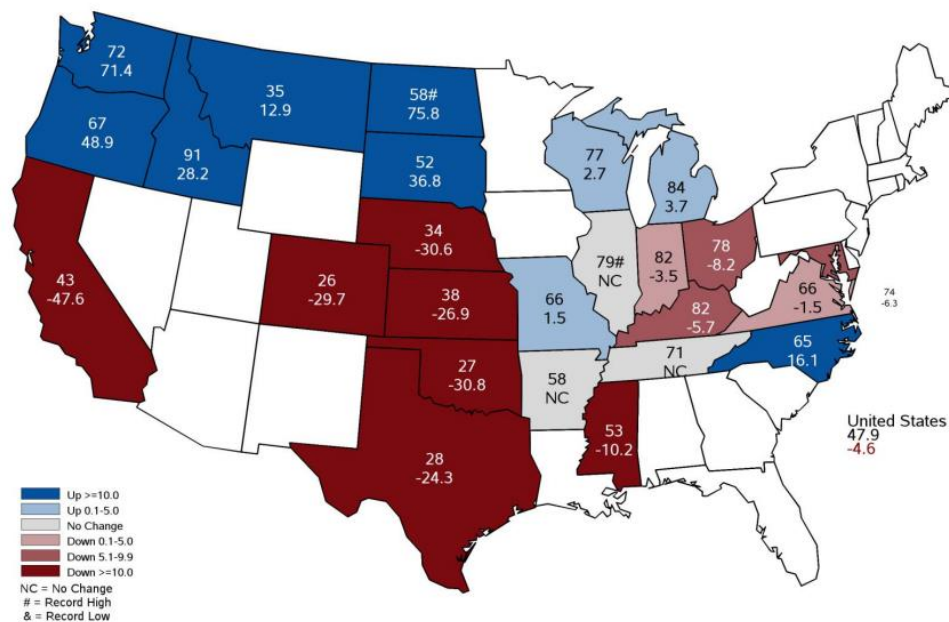
Winter Wheat Yield Forecasts and Harvest Progress

The USDA, NASS August *Crop Production* report lowered U.S. winter wheat yields 0.1 bushels per acre from the previous month to 47.9. Yields were reduced for key HRW producing States in the Great Plains such as Kansas and Colorado. On the other hand, yields are raised for several key SRW-producing States in the eastern part of the country. Compared with the previous year, yields in the Southern Plains are substantially lower due to drought which primarily impacts HRW production (figure 2). Yields in the Northern Plains and Pacific Northwest are substantially higher with conditions much better than last year's drought (figure 2). In the major SRW-producing states in the eastern half of the country, yield results are mixed with some better and some worse than last year. The overall SRW yield is down slightly from last year's record but remains the second highest ever.

Figure 2

Winter wheat yield by State, August 2022

August 2022 Winter Wheat Yield Bushels and Percent Change from Previous Year



Note: Within each State, the top number presents current projected yield and the bottom number is the percent change.

Source: USDA, National Agricultural Statistics Service.

According to the USDA, NASS *Crop Progress* report, the U.S. winter wheat harvest is 86 percent complete as of August 7, 2022. This is down slightly from 94 percent last year and the 5-year average of 91 percent. Harvest has concluded in the key HRW-producing States of

Kansas, Oklahoma, Texas, and Colorado. Farther north, harvest is well underway in Montana (51 percent harvested) and South Dakota (92 percent). Harvest is complete in most SRW producing States in the eastern part of the country. In the Pacific Northwest, key White wheat-producing States are somewhat behind their typical harvest pace with Washington at 27 percent, Oregon at 62 percent, and Idaho at 20 percent.

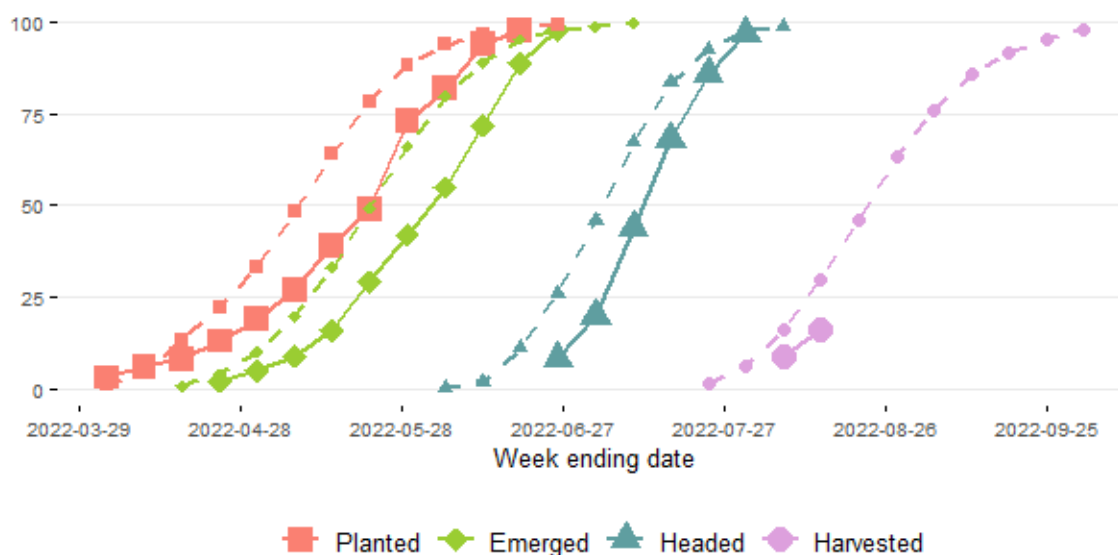
Spring Wheat Development Lagging Normal Pace

Large areas of North Dakota and Minnesota dealt with excessively wet conditions during planting, resulting in a delayed planting pace of the U.S. spring wheat crop (figure 3). However, elevated prices likely gave producers the incentive to plant the crop when conditions would allow. Planting progress surged in the latter half of June, which was well behind the typical pace. This resulted in delayed development of the crop overall, with emergence and heading also lagging the normal pace. These developmental delays appear to be somewhat mitigated due to warm weather, which accelerated crop development in recent months. According to the USDA, NASS *Crop Progress* report, 9 percent of spring wheat is harvested as of August 7, down from 35 percent last year and the 5-year average of 19 percent. Spring wheat harvest has progressed the farthest in South Dakota, which is now at 54 percent, slightly above the 5-year average.

Figure 3

United States Spring (excluding Durum) wheat crop progress, August 2022

Percent complete



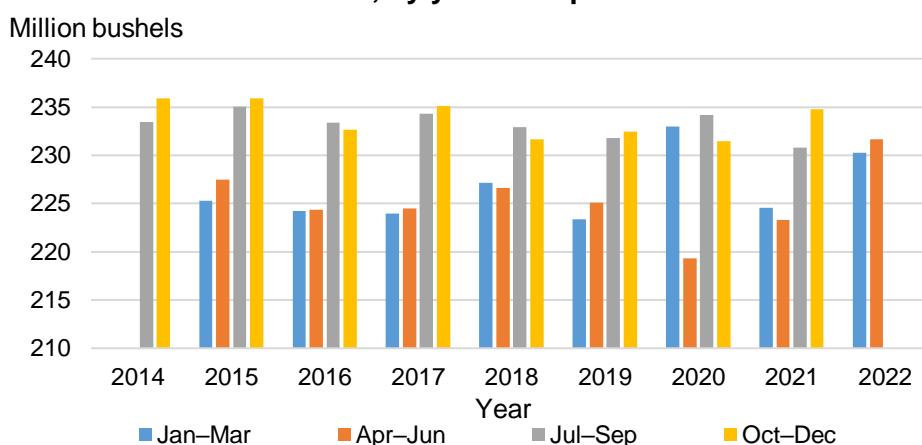
Note: Dashed lines = average (2010–2021); solid lines = 2022.

Source: USDA, Economic Research Service; USDA, National Agricultural Statistics Service.

Food Use at Record High in 2021/22

Food use for 2021/22 is raised 10 million bushels from the previous month to a record 972 million bushels. USDA, NASS published the *Flour Milling Products* report on August 1, which showed larger-than-expected wheat food use during the April–June quarter (figure 4). With the expectation that food use will continue to be elevated in the coming year, 2022/23 food use is boosted 6 million bushels to 970 million. Consumer prices for wheat products continue rising at a rapid pace, but this is not expected to impact wheat food use substantially. Wheat demand is considered relatively price inelastic and prices are rising notably across many food categories.

Figure 4
U.S. wheat milled for flour, by year and quarter



*cwt = hundredweight or 100 pounds.

Source: USDA, National Agricultural Statistics Service, *Flour Milling Products*.

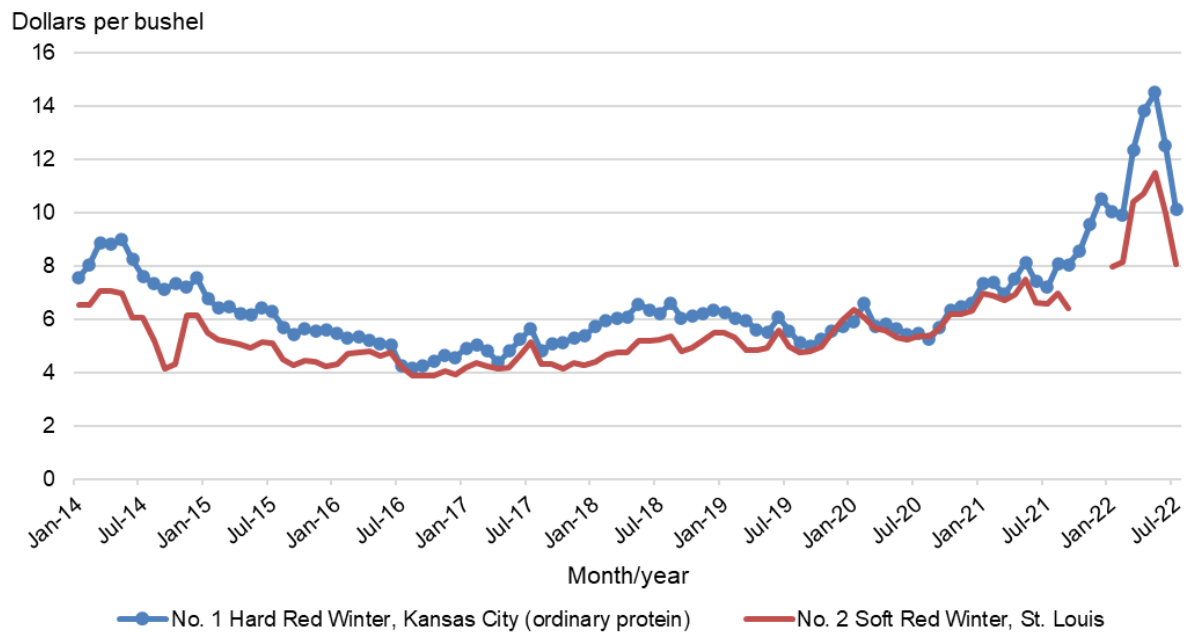
In both years, the use of SRW is boosted with the expectation that millers will favor additional inclusion of this class of wheat in grinds based on its favorable pricing to other classes (table 2). SRW prices have been consistently below HRW for the last several months (figure 5). For 2022/23, SRW use may be particularly preferable for blending as a lower-protein option considering the high protein content of this year’s HRW crop.

Class	Final	Final	Previous	Final	Previous	Current	5-year average	Final	Proposed	Current	Proposed	Current	Proposed	
	2019/20	2020/21	2021/22	2021/22	2022/23	2022/23	2016/17–20/21	2019/20	2020/21	2021/22	2021/22	2022/23	2022/23	
	Million bushels						Percent of total							
HRW	378.2	376.8	405.0	410.6	385.0	385.0	40.0	39.3	39.2	42.1	42.3	39.9	39.7	
HRS	265.0	263.0	245.0	245.0	264.0	264.0	26.9	27.6	27.4	25.5	25.2	27.4	27.2	
SRW	148.0	148.0	150.0	154.0	150.0	156.0	15.7	15.4	15.4	15.6	15.9	15.6	16.1	
White	85.0	85.0	84.0	83.0	85.0	85.0	8.9	8.8	8.8	8.7	8.5	8.8	8.8	
Durum	85.4	87.7	78.0	78.9	80.0	80.0	8.6	8.9	9.1	8.1	8.1	8.3	8.2	
Total	961.6	960.5	962.0	971.5	964.0	970.0								

Note: HRW = Hard Red Winter; HRS = Hard Red Spring; SRW = Soft Red Winter.

Source: USDA, National Agricultural Statistics Service and USDA, Economic Research Service calculations.

Figure 5
U.S. Hard Red Winter and Soft Red Winter prices, January 2014–July 2022



Note: Prices are monthly averages of daily quotes.

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

International Outlook

2022/23 Global Wheat Production Projected at a Record

Global wheat production in 2022/23 is projected at a record 779.6 million metric tons (MMT) (+8.0 million from July) as favorable growing conditions continue to sweep through **Russia**, **Australia**, and **Canada** boosting yield potential. Production in Russia is up 6.5 MMT to a record 88.0 MMT as winter wheat harvest results exhibit higher-than-expected yields coupled with a larger area based on an updated report from Russia's Federal State Statistical Service (Rosstat). Winter wheat production is revised up 5.5 MMT based on increases for yield and area harvested. Spring wheat production in Russia is also up 1.0 MMT to 23.0 MMT as the Normalized Difference Vegetation Index (NDVI) shows above average conditions for over half the production region supporting higher yield potential. See this month's *World Agricultural Production* by the USDA, Foreign Agricultural Service for more information on this month's production changes. Table 3 summarizes the production changes for Russia.

Attribute	Unit	2022/23		
		July	August	Change
Winter wheat				
Area	Million hectares	15.6	16.3	↑ 0.7
Yield	Metric tons/hectare	3.81	3.99	↑ 0.17
Production	Million metric tons	59.5	65.0	↑ 5.5
Spring wheat				
Area	Million hectares	12.2	12.4	↑ 0.2
Yield	Metric tons/hectare	1.80	1.85	↑ 0.05
Production	Million metric tons	22.0	23.0	↑ 1.0
Total wheat				
Area	Million hectares	27.8	28.7	↑ 0.9
Yield	Metric tons/hectare	2.93	3.07	↑ 0.13
Production	Million metric tons	81.5	88.0	↑ 6.5

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

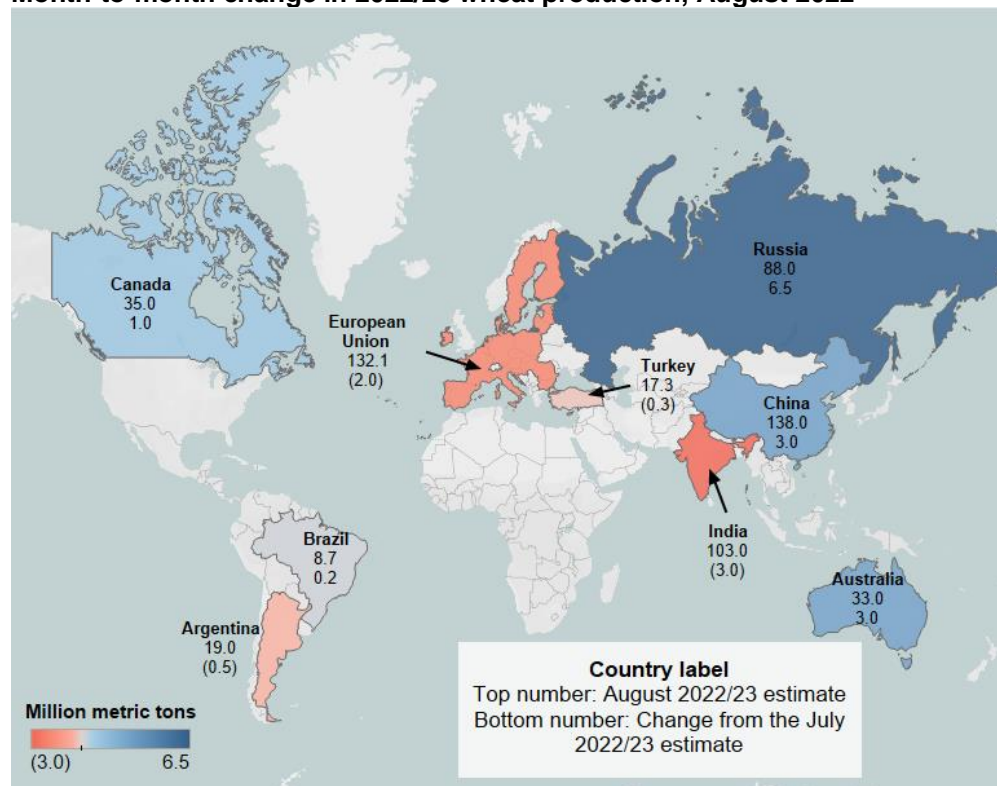
These increases are only partially offset by the **European Union** (EU) as high temperatures and limited rainfall continues to slash yield potential (-0.06 MT/ha to 5.5 MT/ha). Elevated temperatures in **Spain** resulted in an acceleration of crop development deteriorating yields and production (-0.6 MMT to 6.2 MMT). A severe drought in **Hungary** dampened yields which resulted in a 0.8 MMT decline in production to 4.0 MMT. **Romania** is also cut 0.4 MMT to 8.9

million as hot and dry conditions continue to decrease yields. **France** production is revised up this month by 0.2 MMT to 35.3 MMT based on an updated Ministry of Agriculture production estimate.

Other notable changes are for **China** and **India**, with mostly offsetting revisions. China planted more spring wheat this year to make up for the reduction of winter wheat acres caused by an autumn flood. If realized this higher area and boosted yields will result in a record production for China (138.0 MMT). Production in India is lowered 3.0 MMT to 103.0 MMT as the government of India is having a difficult time controlling the wheat price inflation through its export ban which suggests lower production than previously anticipated. See figure 6 for a full overview of this month's production changes.

Figure 6

Month-to-month change in 2022/23 wheat production, August 2022



Note: Changes less than 100,000 metric tons are not included.

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

2022/23 Global Consumption Projected Higher

Global unadjusted consumption is revised up 2.4 MMT to 783.8 MMT, driven by higher feed and residual use (+1.5 MMT to 152.8 MMT) and food, seed, and industrial (FSI) use (+0.9 million MT to 631.1 million). Feed and residual use is boosted for **Russia** (+1.0 MMT to 20.0 MMT) and **Australia** (+1.0 MMT to 5.0 MMT) as both countries have higher-than-expected domestic

production. This was partially offset by a lower feed and residual use for the **EU** as domestic supplies tightened this month. FSI use is led by increases for **Russia** (+0.8 MMT to 24.0 MMT), **United States** (+0.2 MMT to 28.3 MMT), and **Kazakhstan** (+0.2 MMT to 4.8 MMT).

Bangladesh's FSI use is lowered 0.2 MMT to 7.9 MMT, partially offsetting these increases as they imported less than previously anticipated.

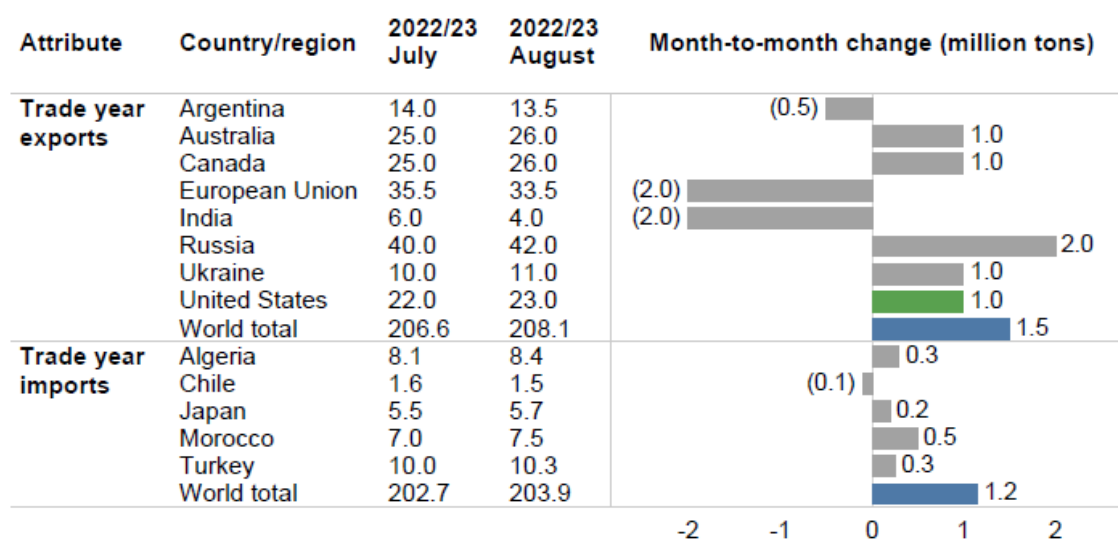
To match the *World Agricultural Supply and Demand Estimates (WASDE)* estimate, consumption is adjusted based on the local marketing year (MY) trade adjustments for 2022/23. Adjusted consumption is revised up 4.4 MMT to 788.6 MMT as the unaccounted trade is revised 2.0 MMT to 4.7 MMT as MY exports increased relatively more than MY imports.

Record Global Trade Projected for 2022/23

2022/23 trade year (TY) (July/June) exports and imports are at a record high and revised higher this month with record production and strong demand (figure 7). TY exports are revised up 1.5 MMT to 208.1 MMT with partially offsetting revisions. Lower domestic production pushes exports down for **India** and the **EU**. Record production results in record TY exports for Russia as their prices remain competitive. Larger domestic production results in a 1.0 MMT increase for both **Australia** and **Canada** to 26.0 MMT each. Despite the ongoing conflict, **Ukraine** has resumed exports through three Black Sea ports as a result of the United Nations backed deal, resulting in higher projected exports (+1.0 MMT to 11.0 MMT).

Figure 7

Month-to-month changes in 2022/23 wheat trade, August 2022



Note: Changes less than 100,000 metric tons are not included.

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

TY imports for 2022/23 are revised up 1.2 MMT to 203.9 MMT, driven by increases for **Morocco, Turkey, and Algeria**. Morocco is projected to have the tightest production since 2007/08, while demand is projected to remain strong pushing imports to high (7.5 MMT). At the end of the 2021/22 trade year, Algeria continued to import more than expected (+0.4 MMT to 8.2 MMT) and has nearly 2.0 MMT on the books in tenders for 2022/23. Turkey is projected to import more to offset lower domestic production.

2021/22 TY exports and imports are revised based on near final trade data. **Bangladesh** imports were revised down 1.0 MMT to 6.5 MMT as pace of trade from India curtailed in the latter half the trade year. This was offset by an upward revision for **Kazakhstan** (+1.1 MMT to 2.5 MMT) as it continued to receive some wheat across the border from Russia despite Russia's export ban with Eurasian Economic Union (EAEU) from March through June 2022. 2021/22 TY exports for the **European Union** are boosted as a result of higher-than-expected pace late in the trade year (+2.3 MMT to 31.8 MMT).

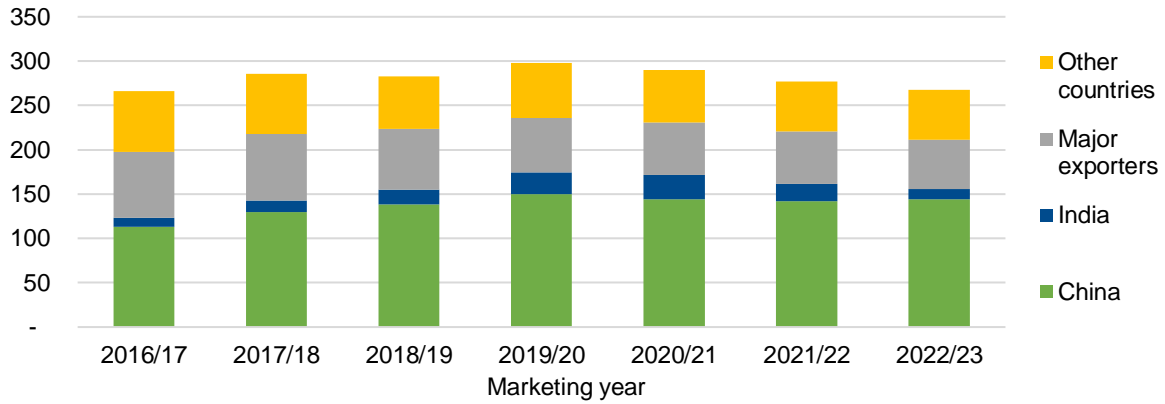
2022/23 Global Ending Stocks Tightest Since 2016/17

Despite higher global production, 2022/23 global ending stocks continue to be the tightest since 2016/17 (figure 8). Compared with the July estimate, ending stocks are reduced by 0.2 MMT to 267.3 MMT with partially offsetting revisions. **India's** ending stocks are down 5.0 MMT to the tightest since 2016/17 at 11.5 MMT as domestic production is lowered this month. **China's** ending stocks are revised up 2.8 MMT to a near-record 144.4 MMT. Major exporters ending stocks also provided some relief with an increase of 0.7 MMT to 55.3 MMT led by an upward increase for **Russia** (+2.8 MMT to 14.4 MMT), **Kazakhstan** (+0.5 MMT to 1.4 MMT), and **Argentina** (+0.4 MMT to 1.4 MMT) and partially offset by reductions for **Ukraine** (-1.0 MMT to 4.2 MMT), the **EU** (-0.8 MMT to 10.2 MMT), and **Australia** (-0.4 million MT to 3.1 million). The **United States** stocks are also revised down 0.8 MMT to 16.6 MMT while **Canada's** stocks are unchanged at 3.9 MMT.

Figure 8

Global wheat ending stocks, 2016/17–2022/23

Million metric tons



Note: Major exporters are Argentina, Australia, Canada, the European Union, Kazakhstan, Russia, Ukraine, and the United States.

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

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