



# Wheat Outlook: February 2023

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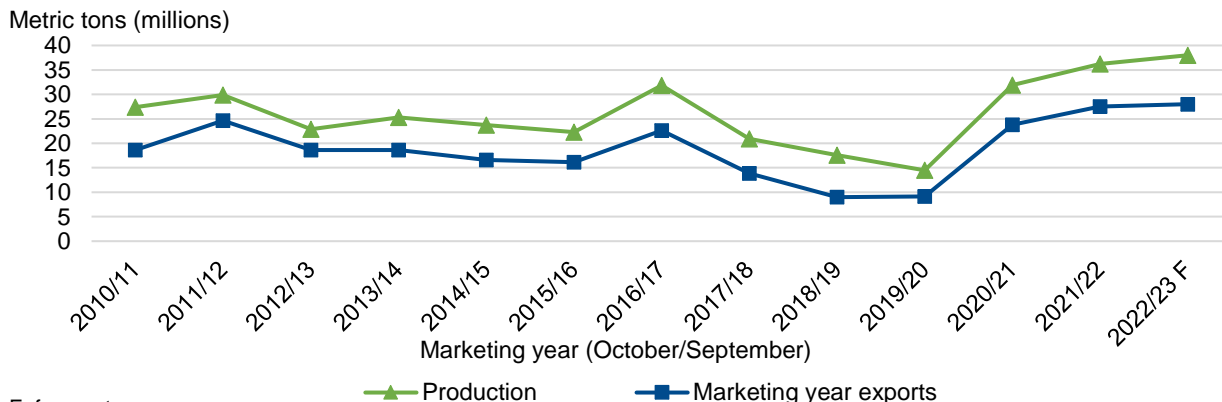
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## Third Consecutive Record Wheat Crop in Australia

Australia is projected to reach a third consecutive record wheat crop in 2022/23 at 38.0 million metric tons (MMT) (figure 1), resulting from favorable growing conditions that swept through the country’s winter grain belt for a third straight year. In Western Australia grain receivals to date are higher than last year’s supporting a new record production level. The 2022/23 record wheat yield is at 2.92 metric tons per hectare. This is up 3 percent from 2021/22 and 40 percent from the 5-year average.

Successive years of abundant wheat harvests has positioned Australia as the third largest exporter behind Russia and the European Union. Marketing year (October/September) exports are forecast at a record 28.0 MMT. Late harvest rains in Victoria and New South Wales have resulted in a larger supply of feed-quality wheat putting Australia in a key position to provide feed wheat to countries in Southeast Asia and East Asia.

Figure 1  
**Australia production and exports, 2010/11–2022/23**



F=forecast.

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

# Domestic Outlook

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## Domestic Changes at a Glance:

- Food use is reduced 2 million bushels to 975 million as wheat used in flour production was lower than expected during the October–December quarter, according to the USDA, National Agricultural Statistics Service (NASS) *Flour Milling Products* report (table 1).
- 2022/23 all-wheat exports are unchanged from the previous month at 775 million bushels, which would be the lowest since 1971/72. 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. White wheat exports are raised 10 million bushels to 190 million, while Soft Red Winter (SRW) is reduced 10 million bushels to 115 million.
- U.S. wheat exports for June through December 2022 reached 468 million bushels, down 3 percent from the same period last year. Official U.S. wheat trade statistics for June through December are based on data from the U.S. Department of Commerce, Bureau of the Census. January exports appear to be up slightly from recent months, but still relatively slow, 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 unchanged at 120 million, up from 95 million in 2021/22. U.S. wheat imports for June through December 2022 totaled 71 million bushels, accounting for 59 percent of the full marketing year projection. Imports for these 6 months are up 23 percent from the same period last year. By-class imports are unchanged this month.
- U.S. seed use is raised 1 million bushels to 70 million based on updated analysis of data from USDA, NASS, as well as expectations for planted area in the coming year. Seed use is raised for Hard Red Winter (HRW) by 0.3 million bushels to 28.3 million, SRW (+0.2 million bushels to 15.2 million), and White (+0.5 million bushels to 6.0 million).
- The 2022/23 season-average farm price is lowered \$0.10 to \$9.00 per bushel but remains a record high. This change is based on current cash and expected futures prices for the duration of the marketing year. The December 2022 farm price reported in the USDA, NASS *Agricultural Prices* publication was \$8.98, down from \$9.16 in the previous month and higher than \$8.59 in December 2021.

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

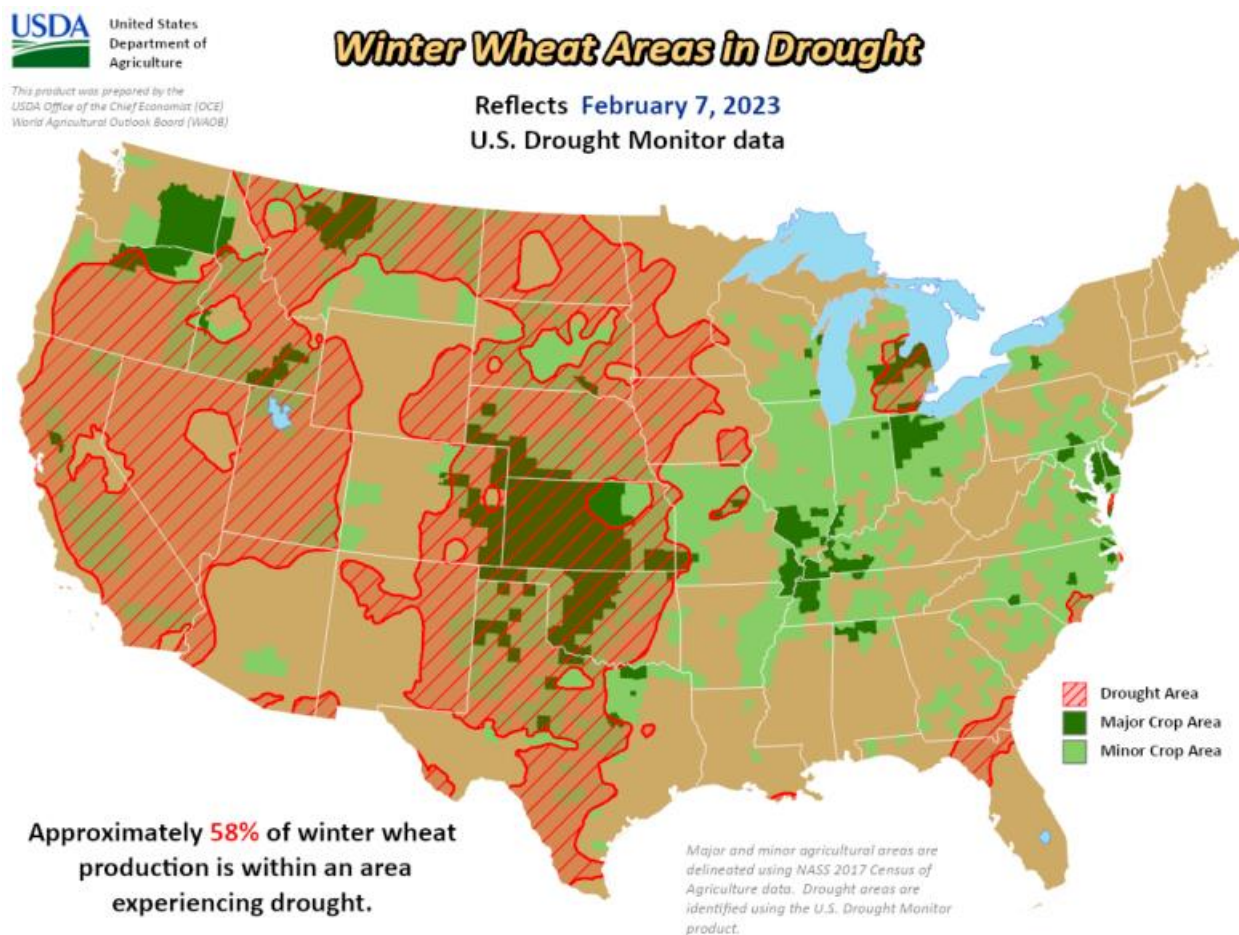
Balance sheet item	2021/22 February	2022/23 January	2022/23 February	Month-to-month change	Comments
<b>Supply</b>					<b>June-May marketing year</b>
Beginning stocks	845	698	698	0	
Production	1,646	1,650	1,650	0	
Imports	95	120	120	0	
Supply, total	2,587	2,468	2,468	0	
<b>Demand</b>					
Food	972	977	975	-2	Slower pace of flour milling during the October–December 2022 period, as indicated in the USDA, National Agricultural Statistics Service (NASS) <i>Flour Milling Products</i> report
Seed	58	69	70	+1	Analysis of data from USDA, NASS and expectations for planted area in 2023/24
Feed and residual	59	80	80	0	
Domestic, total	1,088	1,126	1,125	-1	
Exports	800	775	775	0	
Use, total	1,888	1,901	1,900	-1	
Ending stocks	698	567	568	+1	
Season-average farm price	\$7.63	\$9.10	\$9.00	-\$0.10	Updated analysis of cash and futures prices
Source: USDA, World Agricultural Outlook Board, <i>World Agricultural Supply and Demand Estimates</i> .					

## 2023/24 Winter Wheat Update

Drought continues to be a major issue for winter wheat production with 58 percent of the production estimated to be in regions experiencing drought as of February 7 (figure 2). This is down from 59 percent on January 10, with the core of the remaining area in drought being major HRW-producing States in the Southern Plains. Drought concerns are minimal for SRW-

producing areas in the eastern part of the country and Soft White-producing areas in the Pacific Northwest.

Figure 2  
**Large portions of winter wheat area in drought**

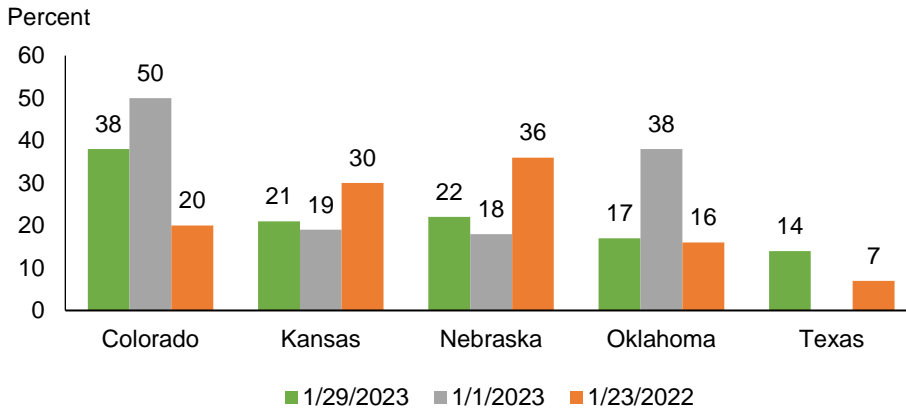


Notes: This product was prepared by the USDA, Office of the Chief Economist (OCE), World Agricultural Outlook Board (WAOB). Major and minor agricultural areas are delineated using National Agricultural Statistics Service (NASS) 2017 Census of Agriculture data. Drought areas are identified using the U.S. Drought Monitor product.  
Source: USDA, World Agricultural Outlook Board, Agricultural Weather and Assessments Group.

USDA, NASS issued updated crop ratings for some key production States as of January 29, 2023. Conditions for key HRW-producing States showed some changes from the January 1, 2023, data. Colorado's crop was rated 38 percent good/excellent, well below the 50 percent previously reported, but still up from last year at a similar time (figure 3). Good/excellent ratings for Kansas and Nebraska improved slightly, but these ratings were well below last year. Conditions for Oklahoma worsened in the last month but remain on par with 2022. Texas conditions are improved from last year after being not reported at the start of January. USDA, NASS provides select crop conditions updates during the winter months and will resume regular reporting with its weekly *Crop Progress*, published on April 3.

Figure 3

**Winter wheat good/excellent condition ratings comparisons, 2022–2023**



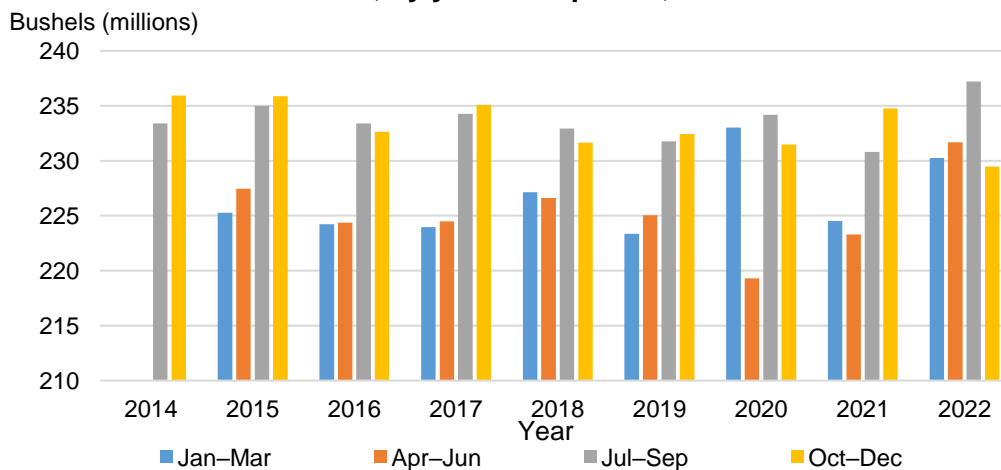
Source: USDA, Economic Research Service calculations; USDA, National Agriculture Statistics Service, *Quickstats* database.

## U.S. Wheat Food Use Lowered on Updated Flour Milling Data

U.S. wheat food use is lowered 2 million bushels from the previous forecast to 975 million. USDA, NASS published the Flour Milling Products report on February 1, which showed smaller-than-expected wheat use for milling in the October-December quarter. Notably, wheat milled was the smallest for that quarter since the dataset began in 2014 (figure 4). The previous quarter was the highest in the history of the USDA, NASS flour milling data.

Figure 4

**U.S. wheat milled for flour, by year and quarter, 2014–2022**



Note: Data from this source unavailable before July 2014.  
 Source: USDA, National Agricultural Statistics Service, *Flour Milling Products*.

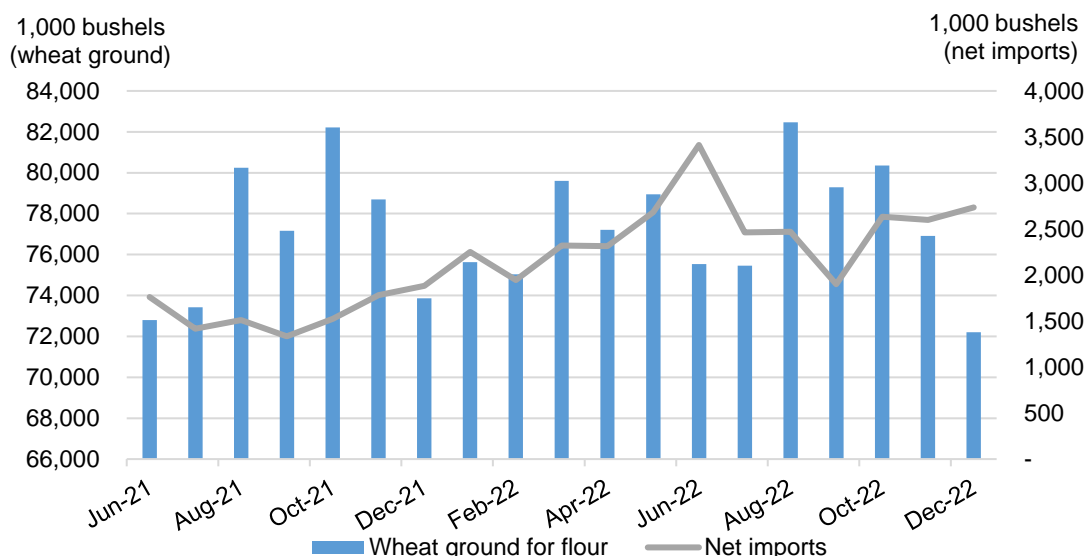
Total wheat food use during June through December is calculated at 574 million bushels, up 2 percent from the same period last year and representing about 59 percent of the full marketing year projection (table 2). Note that USDA, Economic Research Service calculations of domestic food use include net imports of wheat flour and food products for human consumption, which have consistently been larger than last year by about 1 million bushels per month (figure 5). For this reason, food use is still expected to be record-large in spite of the relatively weak pace of milling in the most recent quarter of data. Durum food use is raised 1 million bushels to 83 million (table 3) on an elevated pace of use as evidenced in USDA, NASS milling data. SRW food use is lowered 3 million bushels to 158 million. The weaker overall pace of milling reduces expectations of SRW inclusion in mill grinds, although it remains the largest food use for that class in 8 years.

**Table 2: Pace of U.S. wheat food use, million bushels, 2013/14–2022/23**

Marketing year	June-December	Marketing year total	Percent of total
2013/14	562	955	58.9
2014/15	565	958	58.9
2015/16	566	957	59.1
2016/17	559	949	58.9
2017/18	567	964	58.8
2018/19	562	954	58.9
2019/20	562	962	58.4
2020/21	567	961	59.0
2021/22	564	972	58.0
5-year average	564	962	58.6
2022/23	574	975	58.9

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

Figure 5  
**U.S. wheat ground for flour and net imports, June 2021-December 2022**



Note: USDA food use data also includes an estimate of nonmilled food use, which is not depicted here.  
 Source: USDA, Economic Research Service; data from USDA, National Agricultural Statistics Service and U.S. Department of Commerce, Bureau of the Census.

Table 3  
**U.S. wheat food use, by class, 2019/20–2022/23**

Class	Final	Final	Final	January	February	5-year average	Final	Final	Final	January	February
	2019/20	2020/21	2021/22	2022/23	2022/23		2019/20	2020/21	2021/22	2022/23	2022/23
	<i>Bushels (millions)</i>					<i>Percent of total</i>					
HRW	378.2	376.8	410.6	380.0	380.0	40.0	39.3	39.2	42.3	38.9	39.0
HRS	265.0	263.0	245.0	269.0	269.0	26.9	27.6	27.4	25.2	27.5	27.6
SRW	148.0	148.0	154.0	161.0	158.0	15.7	15.4	15.4	15.9	16.5	16.2
White	85.0	85.0	83.0	85.0	85.0	8.9	8.8	8.8	8.5	8.7	8.7
Durum	85.4	87.7	78.9	82.0	83.0	8.6	8.9	9.1	8.1	8.4	8.5
Total	961.6	960.5	971.5	977.0	975.0						

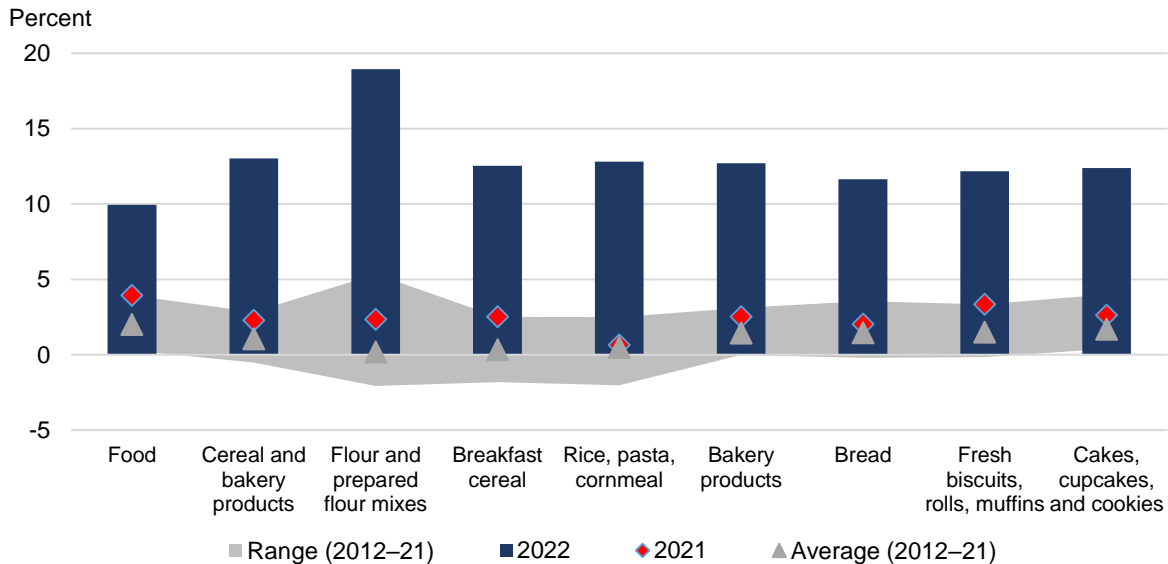
Note: HRW = Hard Red Winter; HRS = Hard Red Spring; SRW = Soft Red Winter.  
 Source: USDA, National Agricultural Statistics Service and USDA, Economic Research Service calculations.

## Price Inflation for Cereal Products Outpaced Overall Food Category in 2022

Consumer prices for wheat-based products were up substantially in 2022 compared to 2021, as indicated by the Consumer Price Index (CPI) data published by the U.S. Department of Labor, Bureau of Labor Statistics. Price levels of a variety of wheat products were up more than 10 percent from 2021, outpacing the rate of inflation in the broader “all food” category, which was up 9.9 percent, more than double the average increase of the previous decade (figure 6). The average price level across the cereals and bakery products category was up 13 percent in 2022,

well above the previous year’s increase (2.3 percent) and more than three times as large as any year in the past decade. Prices for flour and prepared flour mixes were nearly 19 percent higher in 2022, far exceeding the average from the previous decade (0.2 percent). Commodity prices for wheat were elevated in 2021 and 2022, but the increase in prices for wheat-based consumer products did not fully appear until 2022. Consumer price changes tend to lag price changes at the commodity level, partly based on the tendency of processors to purchase inputs well in advance. Prices have also increased for non-wheat ingredients such as eggs and butter, which tend to feature prominently in wheat food products such as breads, cakes, and pasta. Furthermore, elevated labor, transportation, and fuel expenses have also contributed to wheat food price inflation in 2022.

Figure 6  
**Year-to-year change in CPI categories, January–December average, 2012–2022**



Notes: CPI = Consumer Price Index.  
 Sources: USDA, Economic Research Service calculations using data from U.S. Department of Labor, Bureau of Labor Statistics.



# International Outlook

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## International Changes at a Glance:

- The 2022/23 global wheat production is raised 2.5 million metric tons (MMT) to 783.8 MMT driven by increases for both **Australia** (+1.4 MMT to 38.0 MMT) and **Russia** (+1.0 MMT to 92.0 MMT). Other changes were for **Brazil** (+0.4 MMT to 9.9 MMT), **Uruguay** (+0.3 MMT to 1.3 MMT), and **Uzbekistan** (-0.4 MMT to 6.2 MMT).
  - Harvest results for Australia continue to showcase record yields (+0.1 metric tons per hectare to 2.92) that are attributable to widespread rainfall that has provided ideal growing conditions during the 2022/23 marketing year (October/September).
  - Higher spring wheat yields (+0.2 metric tons per hectare to 1.88) and harvested area (+0.4 million hectares to 12.8) pushes Russian spring wheat production up 1.0 MMT to a record 24.0 MMT while winter wheat production remains steady at a record 68.0 MMT.
- Global consumption for 2022/23 is up 2.1 MMT to 785.3 MMT. To match the *World Agricultural Supply and Demand Estimates (WASDE)*, consumption is adjusted based on the local marketing year (MY) trade adjustments for 2022/23. Unaccounted trade is lowered 0.7 MMT to 5.9 MMT as MY imports are raised more than MY exports. Total consumptions plus unaccounted trade results in an adjusted consumption of 791.2 MMT, up 1.4 MMT from the January estimate.
- Feed and residual use is up 2.5 MMT to 157.8 MMT driven by a 1.0 MMT increase for Canada to 4.5 MMT. Statistics Canada showed higher than anticipated July through December feed and residual disappearance, resulting in larger annual projected feed and residual use.
  - **Russia** feed and residual use is raised 0.5 MMT to 21.5 MMT as a result of its record production.
  - The **European Union (EU)** is also up 0.5 MMT to 45.0 MMT as it continues to import feed-quality wheat from Ukraine to cover for tighter domestic feed supplies.
- Food, seed, and industrial (FSI) use is reduced 0.3 MMT to 627.5 MMT. FSI use is lowered for **Bangladesh** (-0.4 MMT to 6.8 MMT) as high prices have limited its consumption of wheat. The **EU** is raised 0.3 MMT to 64.0 MMT.

- Exports for the 2022/23 trade year (July/June) are raised 1.8 MMT to 211.4 MMT driven by a 1.0 MMT increase for Australia (29.5 MMT) and 0.5 MMT increase for the **EU** (36.5 MMT), **Russia** (43.5 MMT), and **Ukraine** (13.5 MMT). **Canada** partially offsets these revisions with a 1.0 MMT decrease to 25.0 MMT as higher domestic use will limit its exportable supplies. See figure 8 for the other major trade year changes.
- Trade year (TY) imports increased by 2.0 MMT to 206.9 MMT with an increase for the **EU** (+1.0 MMT to 9.0 MMT) and **China** (+0.5 MMT to 10.0 MMT) only partially offset by a reduction for **Bangladesh** (-0.7 MMT to 5.3 MMT).
  - With India continuing to restrict exports, Bangladesh has turned to **Canada**, **Ukraine**, the **EU**, and **Australia** to make up for the decline in imports from India, but high domestic prices have rationed wheat consumption reducing import needs.
  - China has seen a strong uptick in imports in recent months from **Australia** and **Canada**.
  - Other TY import changes are for Southeast Asia and East Asia countries as Australia remains price competitive into these markets with its third consecutive record crop (figure 7).
- Global ending stocks for 2022/23 see some relief with an increase of 0.9 MMT to 269.3 MMT. Major exporters ending stocks are raised 0.2 MMT to 56.6 MMT as **Australia's** stocks are boosted 0.9 MMT to 5.1 MMT driven by a record crop. This is only partially offset with reductions for the **EU** (-0.3 MMT to 11.1) and **Ukraine** (-0.5 MMT to 4.2 MMT).
  - **China's** stocks are raised 0.5 MMT to 144.6 MMT and accounts for 53 percent of the global wheat stocks. World minus China stocks are at 124.8 MMT, the lowest since 2008/09.
- Table 4 presents details for the global 2022/23 supply and distribution.

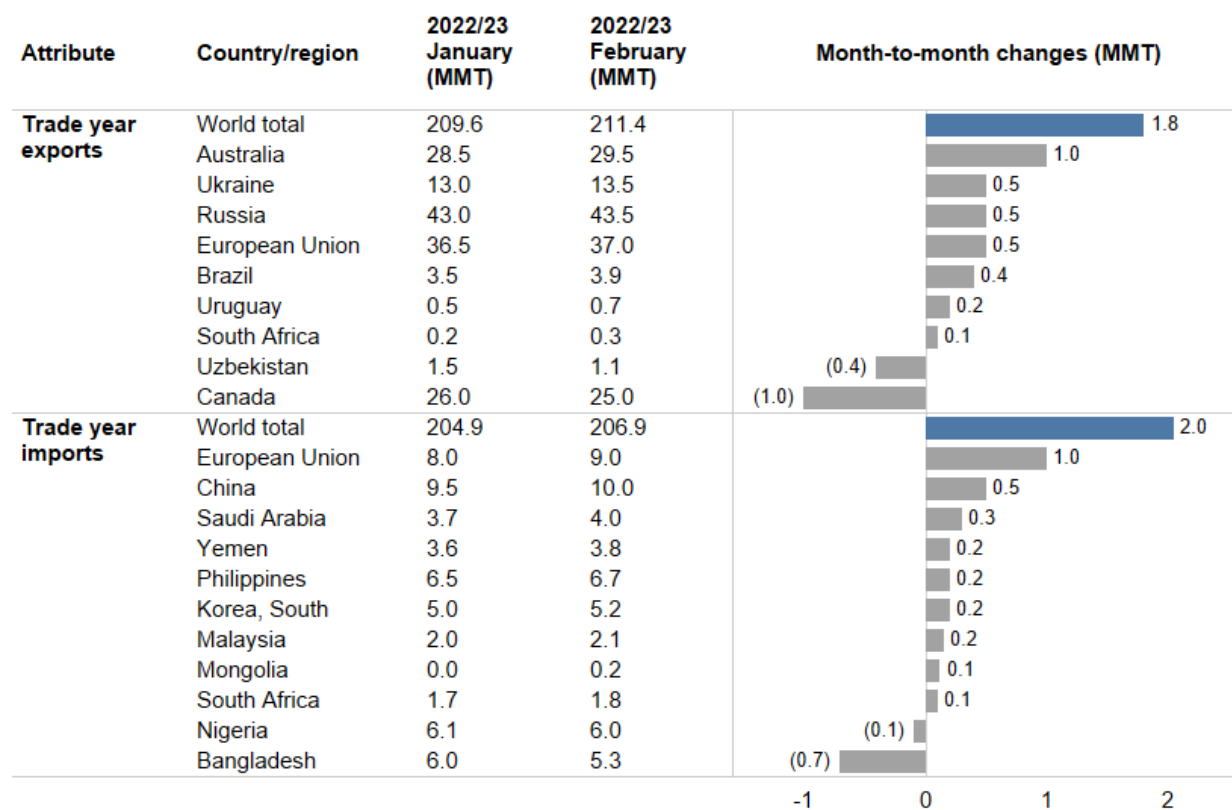
Table 4

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

Balance sheet item	2021/22 February	2022/23 January	2022/23 February	Month-to- month change
<b>Supply</b>				
Beginning stocks	290.1	276.8	276.7	(0.1)
Production	779.3	781.3	783.8	2.5
Trade year imports	200.9	204.9	206.9	2.0
<b>Demand</b>				
Feed and residual use	160.3	155.3	157.8	2.5
Food, seed, and industrial use	628.8	627.9	627.5	(0.3)
Domestic, total use	789.1	783.2	785.3	2.1
Trade year exports	205.3	209.6	211.4	1.8
Ending stocks	276.7	268.4	269.3	0.9

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

Figure 7

**Month-to-month changes in 2022/23 trade year trade, February 2023**

MMT=million metric tons.

Notes: Changes less than 100,000 metric tons are not included; month-to-month change is the difference between the February 2023 and January 2023 estimates.

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

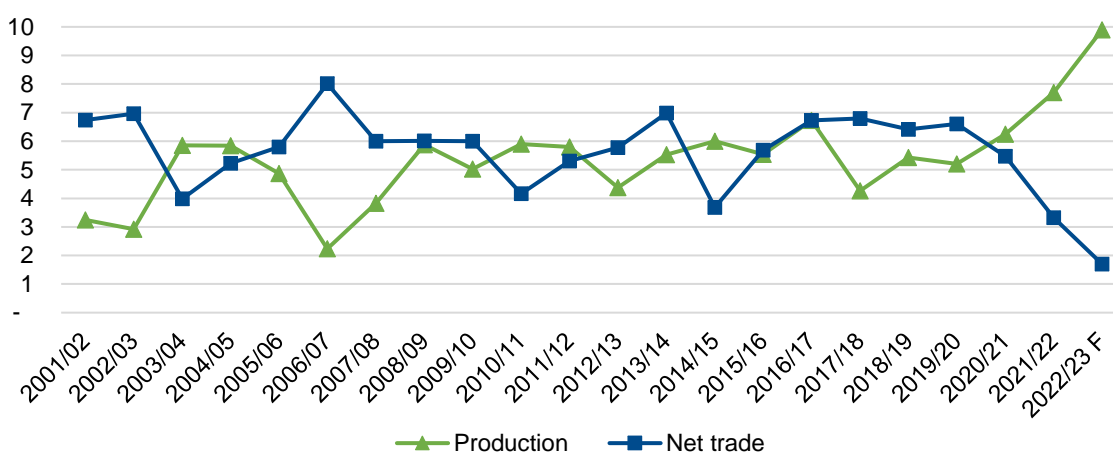
## Record Production for Brazil; Remains Net Importer

**Brazil** has significantly expanded production since 2019/20 as both area and yields have increased. As production rose, exports also expanded but Brazil remains a net importer (figure 8). In 2022/23, Brazil is projected to reach a record 9.9 MMT of wheat production which is 29 percent above 2021/22 and three times the amount in 2001/02. Brazil is actively investing in becoming self-sufficient in wheat in the coming years through expansion of area and increased use of yield-boosting inputs. Harvested area has already increased to a record 3.1 million hectares up from 2.7 million hectares in 2021/22. Concurrently, yields have improved to a record 3.20 metric tons per hectare.

Figure 8

### Brazil production and net trade, 2001/02–2022/23

Metric tons (millions)



F=forecast.

Note: Net trade is marketing year imports minus marketing year exports.

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

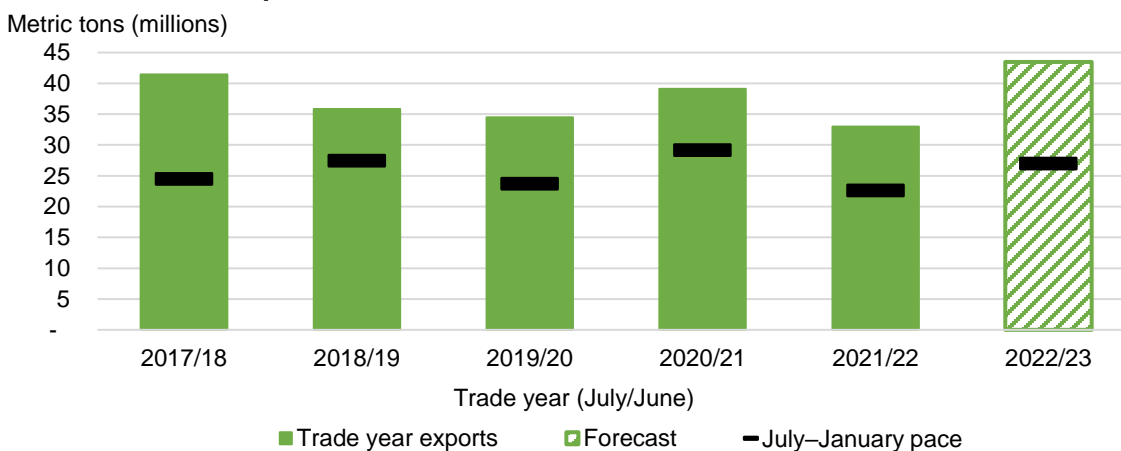
Since 2018/19, marketing year (October/September) imports have declined from 7.0 MMT to 5.6 MMT as production expanded. Imports in 2022/23 are also down as over half of Brazil's imports are from Argentina. Argentina's production was limited by the drought (down 44 percent from the previous year to 12.5 MMT). Along with lower imports, Brazil's wheat exports are projected to jump to 3.9 MMT, up 0.8 MMT from 2021/22 and 3.0 MMT from 2020/21. In 2021/22, more than half of Brazil's exports went to **Saudi Arabia, Indonesia, and Vietnam**. All these factors drove Brazil's net trade down in the past three years (figure 8). If the push for self-sufficiency continues to support production gains, Brazil is expected to expand export sales to Southeast Asia, the Middle East, and Africa.

## Russian Exports Increase Pace

**Russia's** production is revised up 1.0 MMT to 92.0 MMT driven by an increase in spring wheat output. Russia's export forecast is raised 0.5 MMT to 43.5 MMT as it has picked up pace in recent months on very competitive export prices and fewer restrictions under the *Black Sea Grain Initiative*. Starting February 15, 2023, through June 30, 2023, Russia has placed a 25.5 MMT all-grain export quota. This is significantly higher than 2021/22, which was at 11.0 MMT with 8.0 MMT reserved for wheat. From 2018/19 and 2021/22, there have been restrictions in place limiting the flow of exports in the latter half of the trade year. Russia still has plenty of room to export the projected 43.5 MMT, despite the export quota as they have shipped more than half of this projection through January with five months remaining in the trade year (figure 9). The floating export tax is still in place but is significantly lower than it was at the start of the trade year. In July, the average export tax was \$103 and in January it was \$64. This decline helped make Russia wheat more competitive and increase its exports in recent months.

Figure 9

### Pace of Russian exports from 2017/18–2022/23



Note: Data for 2017/18 through 2021/22 are calculated using official trade data, 2022/23 depicts estimated pace with vessel loading data.

Source: USDA, Economic Research Service calculations using data Trade Data Monitor and Reuters Refinitiv Eikon.

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