



Wheat Outlook: November 2022

Andrew Sowell, coordinator

Bryn Swearingen, contributor

In this report:

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

U.S. Wheat Food Use Projected at Record

U.S. wheat food use in 2022/23 is raised 7 million bushels this month to a record 977 million. Per capita food consumption in the United States is generally stable with overall food use rising mostly in-line with population growth. There have been a few notable exceptions to this trend historically. Starting in 2001/02, food use declined partly driven by the popularity of low-carbohydrate diets such as the Atkins. After several years of recovery, food use again dipped in 2008/09 due to impacts from the Great Recession. Consumers stocking up on pasta during the Coronavirus (COVID-19) pandemic contributed to elevated Durum food use in 2019/20 and 2020/21, but this effect did not substantially impact overall wheat food use. All-wheat food use, which had previously been record large in 2021/22, is now seen surging once again in 2022/23, despite rising consumer costs. USDA, Economic Research Service calculations of food use are primarily derived from *Flour Milling Products* data from the USDA, National Agricultural Statistics Service.

Figure 1

U.S. wheat food use, 1998/99–2022/23

Million bushels



(F) denotes a forecast.

Source: USDA, National Agricultural Statistics Service; USDA, World Agricultural Outlook Board.

Domestic Outlook

Domestic Changes at a Glance:

- The 2022/23 U.S. wheat production estimate is unchanged this month. Production data by class will be finalized for the year in the January 12 USDA, National Agricultural Statistics Service (NASS) *Crop Production Annual Summary* report.
- Food use is raised 7 million bushels to 977 million based on updated data from the November 1 USDA, NASS *Flour Milling Products* report. Milling demand for Hard Red Spring (HRS) and Soft Red Winter (SRW) are both expected higher, more than offsetting lower Hard Red Winter (HRW) use.
- 2022/23 seed use is lowered 2 million bushels to 66 million for the 2022/23 based on planting expectations for the 2023/24 wheat crop. This is 8 million above 2021/22 as planted area is expected to expand. An additional factor influencing the larger seed use in 2022/23 is the late planting of the HRS crop, which resulted in a larger-than-normal portion of seed use being allocated into the first quarter of 2022/23.
- 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 uncompetitive with other global suppliers, while the pace of new sales has dwindled, as reported in the USDA, Foreign Agricultural Service (FAS) in its *U.S. Export Sales* report. Considering export pace and competitiveness of each class, the by-class exports are now projected as follows:
 - White exports are raised 5 million bushels to 175 million based on a fast pace of export sales during the month of October.
 - Durum exports are trimmed 5 million bushels to 20 million with the slow pace of sales and shipments.
- U.S. wheat exports for June through September 2022 reached a total of 325 million bushels, down 4 percent from the same period last year. Official U.S. wheat trade statistics for June through September are calculated based on data from the U.S. Department of Commerce, Bureau of the Census. October exports appear to be weaker 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 are unchanged at 120 million, up from 95 million in 2021/22. U.S. wheat imports for June through September 2022 totaled 40 million bushels, accounting for 33

percent of the full marketing year projection. Imports for these four months are up 8 percent from the same period last year.

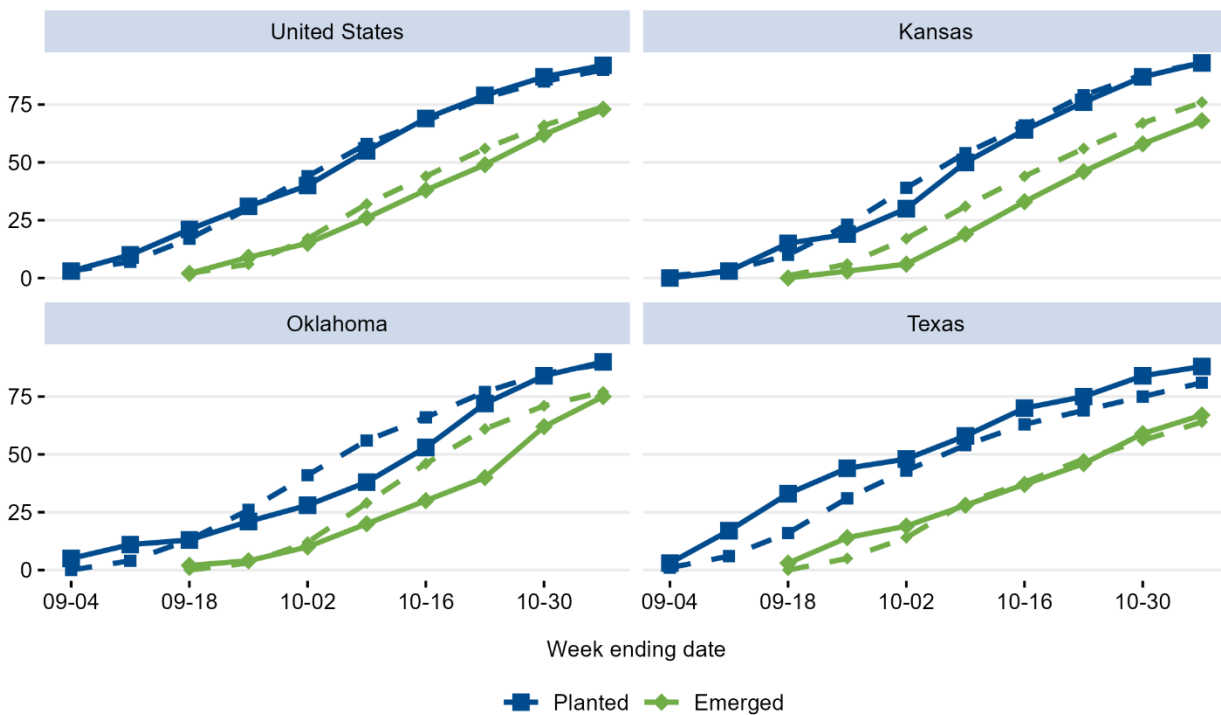
- The 2022/23 season-average farm price is projected at a record \$9.20 per bushel, unchanged from last month. Prices remained volatile this month given the uncertainty of the future of the Black Sea Grain Initiative that is set to end November 19 unless it is renewed. The September farm price reported in the USDA, NASS *Agricultural Prices* publication was \$8.85, up from \$8.55 in the previous month and slightly higher than \$7.75 in September 2021.
- Table 1 presents details for the U.S. all-wheat supply and distribution.

Table 1					
U.S. wheat supply and use at a glance 2022/23 (in million bushels)					
Balance sheet item	2021/22 November	2022/23 October	2022/23 November	Month-to-month change	Comments
Supply					June-May marketing year
Beginning stocks	845	669	669		
Production	1,646	1,650	1,650		
Imports	95	120	120		
Supply, total	2,587	2,439	2,439		
Demand					
Food	972	970	977	+7	Robust milling during the July-September quarter as reported by USDA, National Agricultural Statistics Service (NASS).
Seed	58	68	66	-2	Seed use revised based on expectations for planted area in 2023/24.
Feed and residual	88	50	50		
Domestic, total	1,117	1,088	1,093	+5	
Exports	800	775	775		
Use, total	1,917	1,863	1,868	+5	
Ending stocks	669	576	571	-5	Smallest ending stocks since 2007/08
Season-average farm price	\$7.63	\$9.20	\$9.20		Elevated futures prices and tighter domestic supplies
Source: USDA, World Agricultural Outlook Board, <i>World Agricultural Supply and Demand Estimates</i> .					

2023/24 Winter Wheat Planting Near Completion

According to the USDA, NASS *Crop Progress* report, 92 percent of U.S. winter wheat has been planted as of November 6, 2022. This is ahead of last year and the 5-year average (both 90 percent). Key HRW-producing States Kansas and Oklahoma are at an average planting pace, while Texas is slightly ahead (figure 2). Over the last month, winter wheat emergence has caught up to the average pace (74 percent) and is currently 73 percent emerged. While emergence for the US is on pace, Kansas lags at only 68 percent emerged compared with the 5-year average (76 percent). Emergence in Oklahoma made big gains in the last couple weeks and is now only slightly behind the 5-year average (77 percent) at 75 percent. Given the faster planting pace in Texas, emergence is above average (64 percent) at 67 percent.

Figure 2
United States winter wheat crop progress, 2023
 Percent complete



Note: Dashed lines = average (2017–21); solid lines = 2023.
 Source: USDA, Economic Research Service; USDA, National Agricultural Statistics Service.

While the USDA, NASS *Crop Progress* data show that producers were willing to plant despite dry conditions and emergence is on pace, the drought in the Southern Plains still looms large for further crop development. As of November 1, approximately 74 percent of U.S. winter wheat areas are in drought (figure 3), well above 43 percent at the same time last year. This drought is particularly centered in the primary HRW-producing States of Kansas, Oklahoma, and Texas.

Production in these areas were already affected by significant drought during the 2022/23 marketing year, and these conditions are continuing through the development of the 2023 crop as shown by current condition ratings.

Figure 3

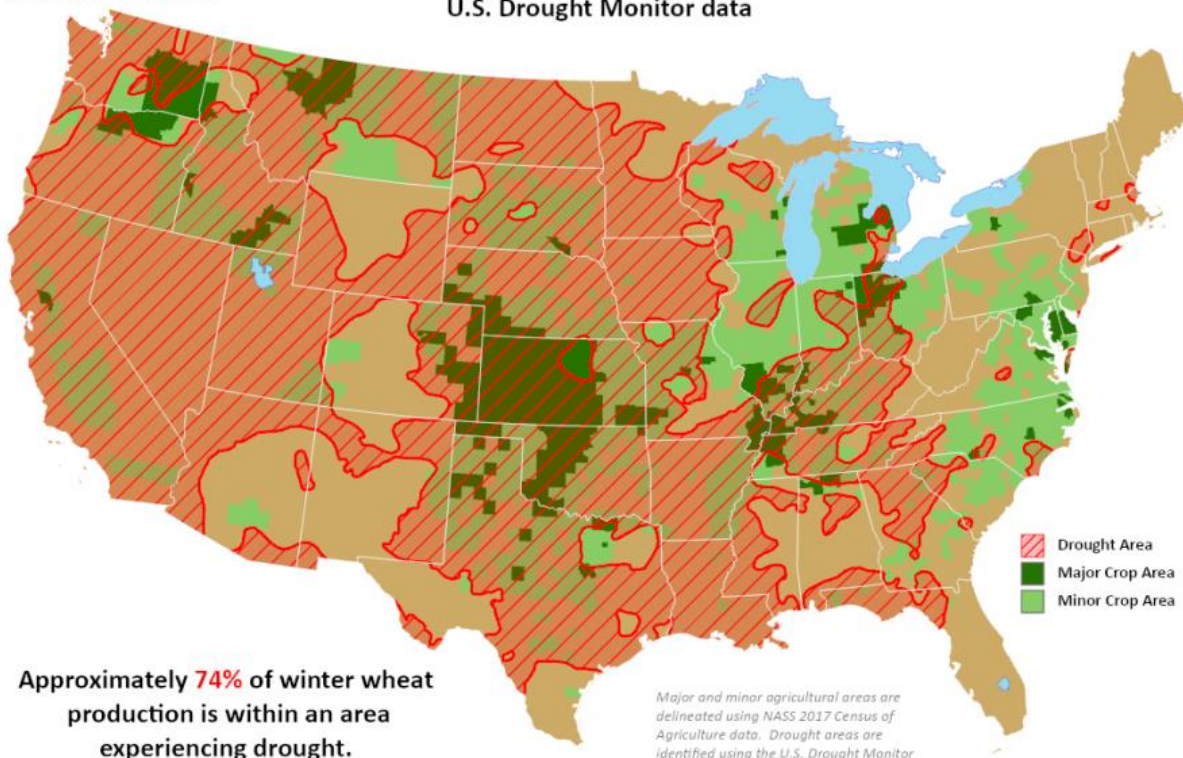
Large portions of winter wheat area in drought



This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Winter Wheat Areas in Drought

Reflects **November 1, 2022**
U.S. Drought Monitor data



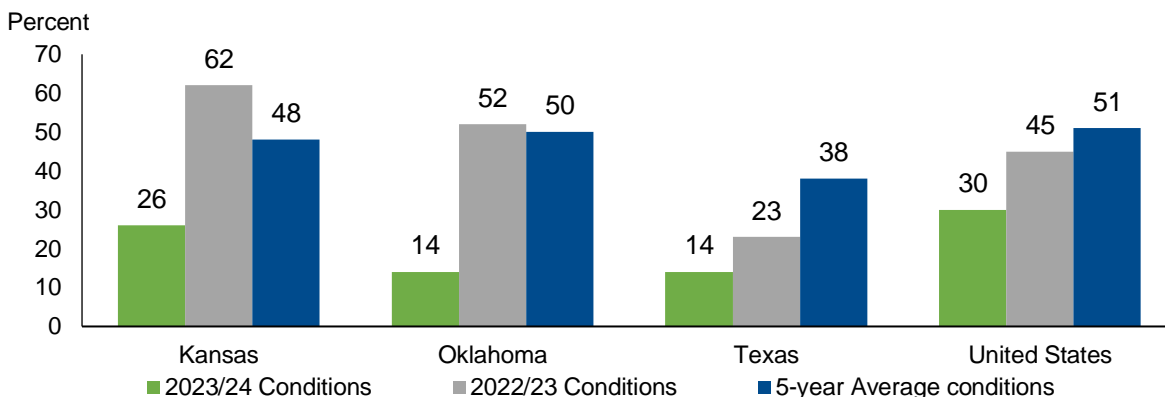
Notes: This product was prepared by the USDA, Office of the Chief Economist (OCE), World Agricultural Outlook Board (WAOB). Major and minor agricultural areas are delineated using National Agricultural Statistics Service (NASS) 2017 Census of Agriculture data. Drought areas are identified using the U.S.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

In addition to crop progress updates, USDA, NASS has begun to report 2023 winter wheat conditions in the *Crop Progress* report. As of November 6, only 30 percent of the winter wheat crop was recorded as good to excellent (G/E) conditions and is behind last year (2022) and the 5-year average (figure 4). Conditions look dismal for the top HRW-producing States. Kansas, Oklahoma, and Texas are all significantly below the previous year and average conditions. Although portions of the Pacific Northwest region are experiencing drought conditions, key Soft White-producing States—Washington, Idaho, and Oregon—are all showing better conditions than last year. Oregon’s G/E rating is 77 percent, which is higher than last year and the 5-year average (33 percent, 55 percent). Washington is also above last year and average (30, 61) with

64 percent in G/E condition. Idaho has 48 percent of its winter wheat crop in G/E condition which is below average (57 percent) and only slightly above last year (46 percent).

Figure 4

Winter wheat good/excellent condition ratings as of November 6, 2022



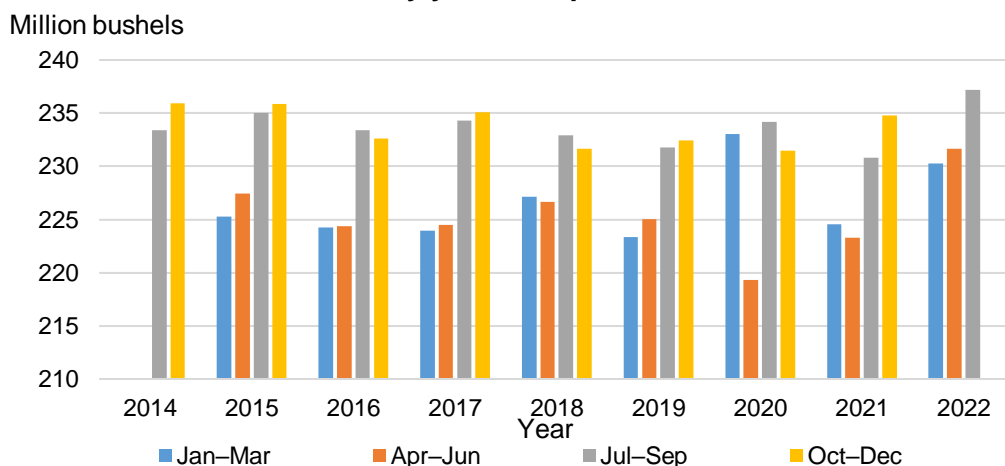
Source: USDA, Economic Research Service calculations; USDA, National Agricultural Statistics Service, *Quickstats* database.

Record-Large Food Use

U.S. food use is now projected at a record 977 million bushels, up 7 million bushels from the previous forecast. USDA, NASS published the *Flour Milling Products* report on November 1, which showed record-large wheat food use during the July–September quarter (figure 5).

Figure 5

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



*cwt = hundredweight or 100 pounds.

Note: Data from this source unavailable before July 2014.

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

While overall food use is a record, there are some notable by-class changes (table 2). HRW food use is lowered 5 million bushels to 380 million based on tighter supplies and relative pricing

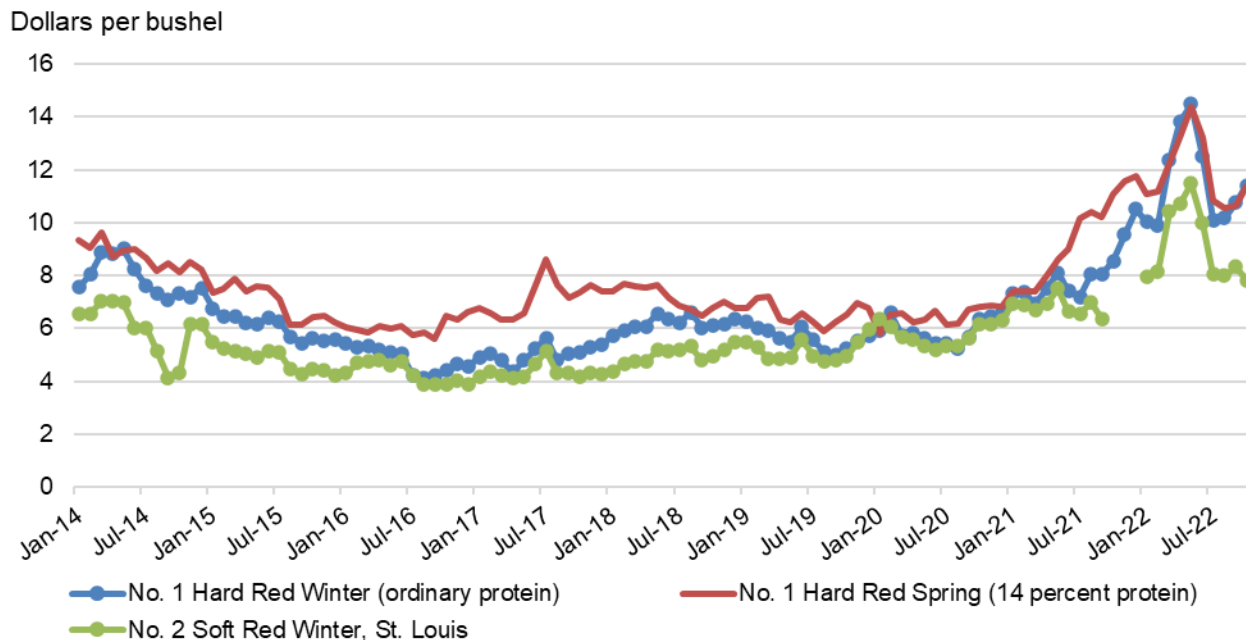
dynamics with other key classes. In particular, HRS is boosted 5 million bushels to 269 million as this high-protein wheat class has been priced competitively with HRW instead of maintaining a premium which exists in a typical market environment (figure 6). SRW use is boosted 5 million bushels to 161 million as this class has sufficient supplies and continues to benefit from a substantial price discount to HRW (figure 6). Durum is boosted 2 million to 82 million bushels with a fast pace of food use during June through September (table 3).

Table 2
U.S. wheat food use, by class, 2019/20–2022/23

	Final	Final	Final	October	November	5-year average	Final	Final	Final	October	November
Class	2019/20	2020/21	2021/22	2022/23	2022/23	2016/17–20/21	2019/20	2020/21	2021/22	2022/23	2022/23
	<i>Million bushels</i>					<i>Percent of total</i>					
HRW	378.2	376.8	410.6	385.0	380.0	40.0	39.3	39.2	42.3	39.7	38.9
HRS	265.0	263.0	245.0	264.0	269.0	26.9	27.6	27.4	25.2	27.2	27.5
SRW	148.0	148.0	154.0	156.0	161.0	15.7	15.4	15.4	15.9	16.1	16.5
White	85.0	85.0	83.0	85.0	85.0	8.9	8.8	8.8	8.5	8.8	8.7
Durum	85.4	87.7	78.9	80.0	82.0	8.6	8.9	9.1	8.1	8.2	8.4
Total	961.6	960.5	971.5	970.0	977.0						

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 6
U.S. wheat cash prices, January 2014–October 2022



Notes: The Hard Red Winter quote is for Kansas City. The Hard Red Spring quote is for Minneapolis and refers specifically to Dark Northern Spring, a subclass of Hard Red Spring. Prices are monthly averages of daily quotes. Source: USDA, Economic Research Service calculations using data from USDA, Agricultural Marketing Service.

Table 3: pace of U.S. durum food use, million bushels

Marketing year	June-September	Marketing year total	Percent of total
2014/15	21	72	28.7
2015/16	25	79	31.8
2016/17	25	79	31.9
2017/18	26	79	32.4
2018/19	26	80	32.1
2019/20	26	85	30.4
2020/21	31	88	35.8
2021/22	25	79	31.8
5-year average	27	82	32.5
2022/23	27	82	33.4

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

Note that all-wheat and Durum food use is calculated by USDA, Economic Research Service (ERS) directly from the USDA, NASS milling data. Net imports of food products are also taken into consideration, based on trade statistics from the U.S. Department of Commerce, Bureau of the Census. These data are presented in monthly form in tables 13 through 16 of the Wheat Data product. The division of food use into the other four classes is done quarterly and is a result of USDA, ERS analysis with approval of USDA's Wheat Interagency Commodity Estimates Committee.

Prices for many wheat products remain elevated. For example, prices for the "cereal and bakery products" category are up 12.4 percent during January-October compared with the same period in the previous year, according to the latest Consumer Price Index data published by the U.S. Department of Labor, Bureau of Labor Statistics. Many wheat products have high prices compared with the previous year, but demand has not declined as wheat is generally considered relatively price inelastic. Moreover, prices are elevated across many food categories, making it less likely that consumers would reduce their consumption of wheat-based foods in favor of other products.

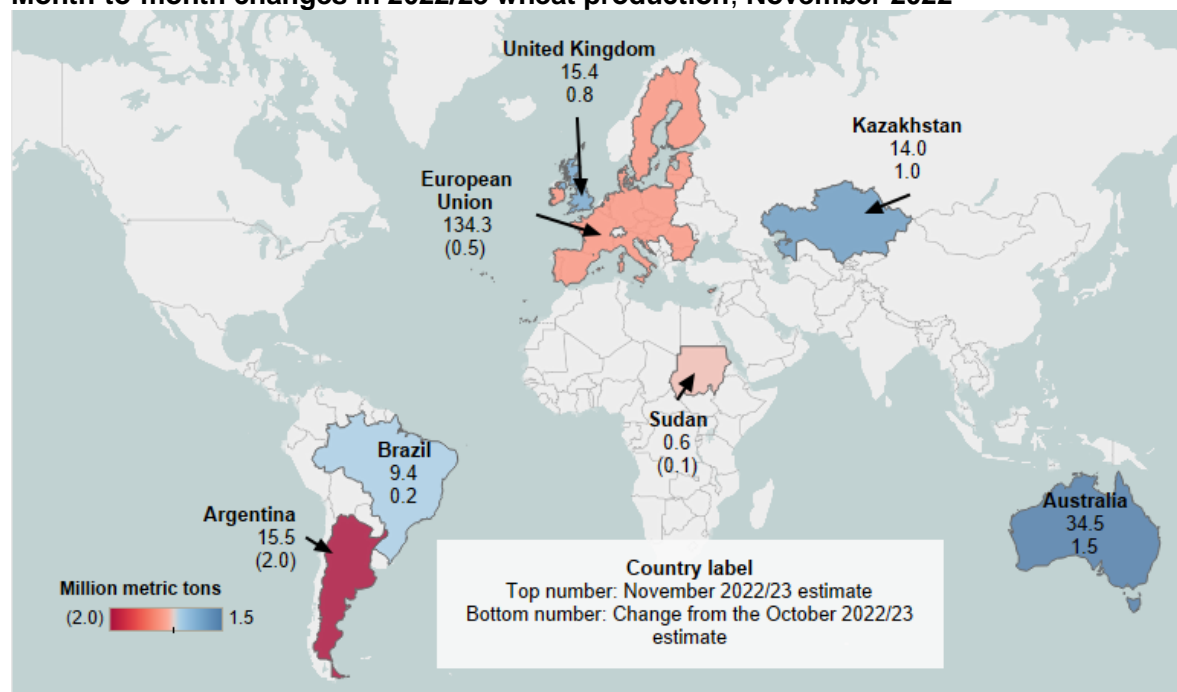
International Outlook

Global Production in 2022/23 Raised

Global wheat production in 2022/23 is projected up 1.0 million metric tons (MMT) to 782.7 MMT. **Australia** continues to have optimal growing conditions and ample rainfall leading to an increase in yield (+0.11 metric ton/hectare to 2.63). Prolonged wet conditions late in the growing season in Eastern Australia will likely impact the quality of the wheat rather than yield or area harvested. Drier conditions would be welcomed in Australia as they move into their winter harvest season. Harvest results in **Kazakhstan** shows that improved precipitation and weather conditions led to higher-than-anticipated yields. Based on updated government yield estimates, the **United Kingdom** is raised 0.8 MMT to 15.4 MMT. **Brazil's** crop is adjusted up 0.2 MMT to a record 9.4 MMT as conditions remain favorable as its harvest progresses. Partially offsetting these increases are the **European Union** and **Argentina**. The European Union is lowered based on updated government data for **France** (-0.5 MMT to 35.1 MMT). The wheat in Argentina continues to be stressed by ongoing drought conditions that has left over half its fields in poor to very poor conditions. Figure 7 shows all the 2022/23 production changes.

Figure 7

Month-to-month changes in 2022/23 wheat production, November 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

2022/23 global consumption is lowered 0.6 MMT to 785.1 MMT as a decline in food, seed, and industrial (FSI) use (-1.5 MMT to 628.7 MMT) is only partially offset with a higher feed and residual use. FSI use is projected lower for **Bangladesh** (-0.7 MMT to 7.2 MMT), **Indonesia** (-0.4 MMT to 8.8 MMT), and **Turkey** (-0.2 MMT to 19.0 MMT) as the countries have limited access to some major trading partners and prices remain elevated.

Feed and residual use is up 0.9 MMT to 156.4 MMT with increases for the **European Union** (+0.5 MMT to 45.5 MMT), **South Korea** (+0.4 to 1.7 MMT), **Philippines** (+0.3 MMT to 2.5 MMT), and **Vietnam** (+0.3 MMT to 2.0 MMT). Wheat prices in the European Union continue to be competitive as a feed grain compared to the drought-stricken corn crop. Partially offsetting these are reductions for **India** (-0.5 MMT to 6.0 MMT) and **Bangladesh** (-0.4 MMT to 0.2 MMT), as high wheat prices are limiting the consumption of wheat as a feed ingredient.

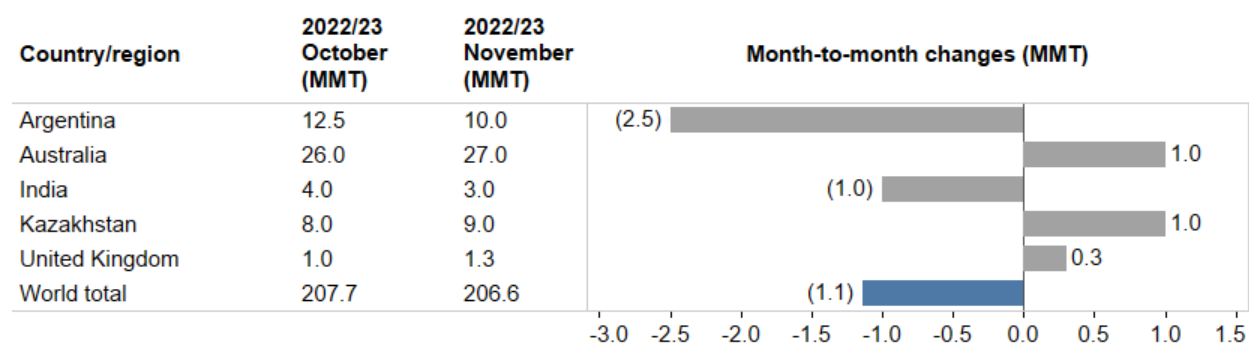
To match the *World Agricultural Supply and Demand Estimates (WASDE)*, consumption is adjusted based on the local marketing year (MY) trade adjustments for 2022/23. Unaccounted trade is revised up 1.6 MMT to 6.1 MMT as MY exports are raised while MY imports are reduced. This results in an adjusted consumption of 791.2 MMT, up 1.0 MMT from the October estimate.

Global 2022/23 Trade is Lowered, Remains Record

2022/23 trade year (July/June) exports are lowered by 1.1 MMT to 206.6 MMT driven by reductions for **Argentina** and **India** only partially offset by higher projected exports for **Australia** and **Kazakhstan** (figure 8).

Figure 8

Month-to-month changes in 2022/23 trade year exports, November 2022



Notes: MMT=million metric tons; changes less than 100,000 metric tons are not included; month-to-month change is the difference between the November 2022 and October 2022 estimates.

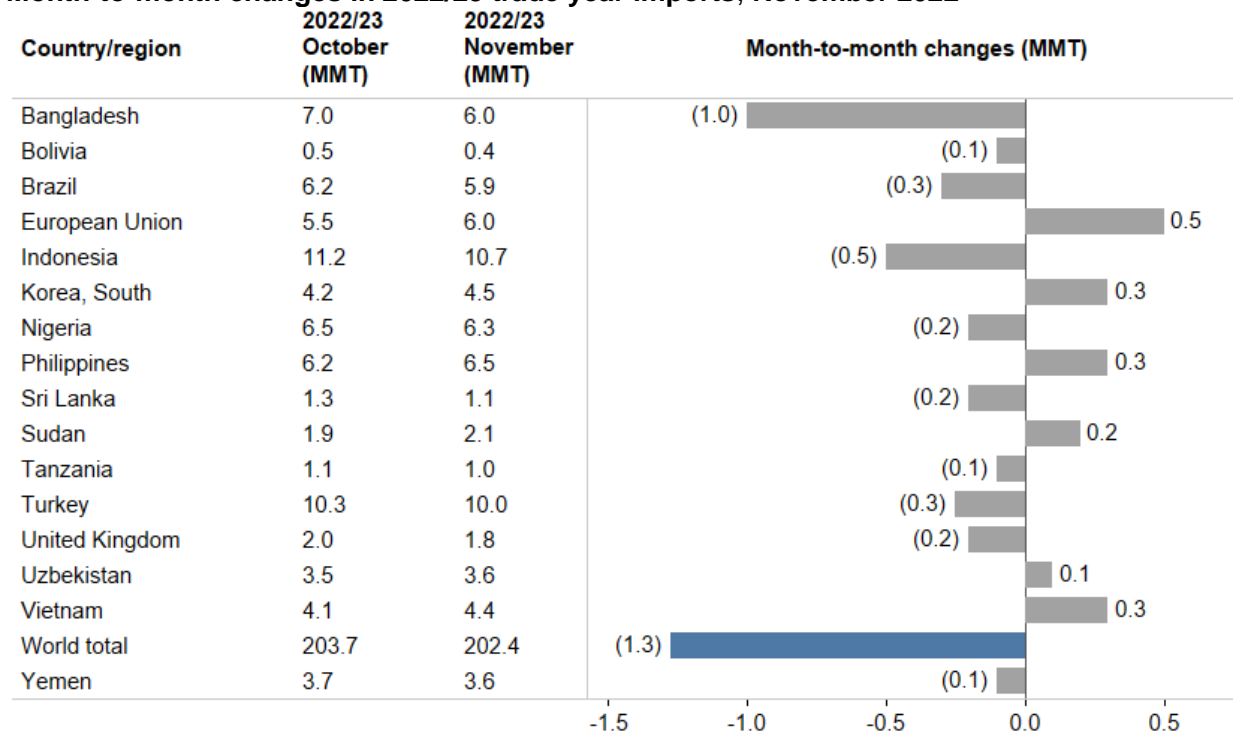
Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service *Production, Supply and Distribution* database.

Production in Argentina is reduced further this month limiting exportable supplies. Its government has also granted traders the option to extend export declarations and accept force majeure claims if farmers are unable to fulfill their forward contract as a result of the ongoing drought. India's export ban is starting to be reflected in the trade data, resulting in a decrease of 1.0 MMT to 3.0 MMT for the 2022/23 trade year (TY). Larger domestic production for Australia and Kazakhstan resulted in a 1.0 MMT export increase each to 27.0 MMT and 9.0 MMT, respectively.

2022/23 TY imports are reduced 1.3 MMT to 202.4 MMT driven by reductions for **Bangladesh, Indonesia, Turkey, and Brazil**. These are partially offset by an increase for the **European Union** (figure 9). Bangladesh imports are revised down 1.0 MMT to 6.0 MMT as consumption is projected to decline due to strong global prices coupled with limited availability from its major supplier, India. The first quarter of the trade year presented a slow pace for both Indonesia and Turkey. Brazil is projected to have a record production resulting in the lowest imports in 8 years at 5.9 MMT. See this month's *Grain: World Markets and Trade* by the USDA, Foreign Agricultural Service for more information on Brazil imports. The European Union is adjusted up 0.5 MMT to 6.0 MMT based on stronger demand for feed-quality wheat (mainly from Ukraine) to offset the tight corn crop.

Figure 9

Month-to-month changes in 2022/23 trade year imports, November 2022



Notes: MMT=million metric tons; changes less than 100,000 metric tons are not included; month-to-month change is the difference between the November 2022 and October 2022 estimates.

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

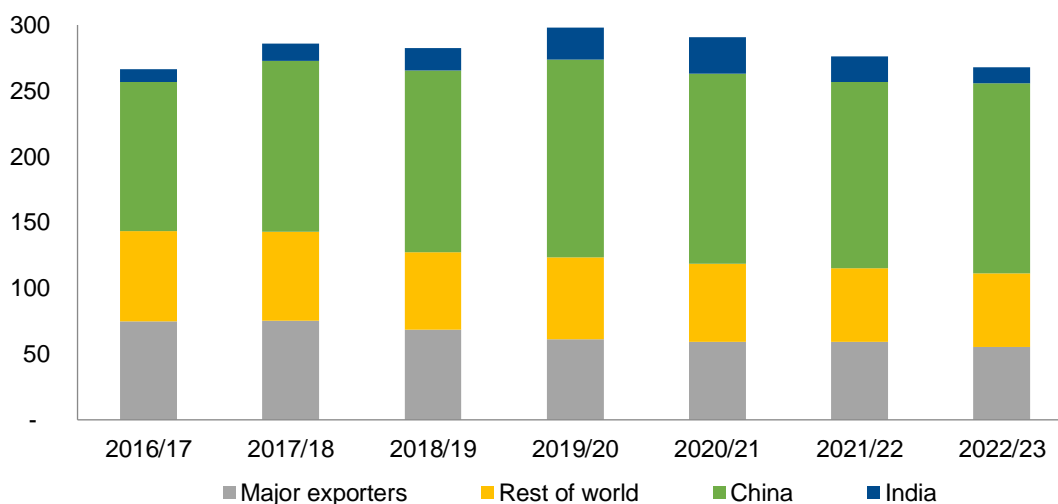
Slight Relief for 2022/23 Global Ending Stocks

2022/23 global ending stocks are projected up 0.3 MMT to 267.8 MMT but remain the tightest since 2016/17 (figure 10). **China** accounts for more than 50 percent of 2022/23 global ending stocks but its stocks are largely not available to the public. When China is removed from the global picture, stocks are even tighter at 123.5 MMT, the lowest since 2007/08. Major exporters' stocks are forecasted down 0.1 MMT to 55.6 MMT. Stocks in **Australia** are raised 0.5 MMT to 3.7 MMT with higher domestic production. Despite a production decline **Argentina's** stocks are raised 0.2 MMT to 1.4 MMT as exports will be limited with restricted supplies. Higher exports for the **European Union** and **Kazakhstan** cut their ending stocks by 0.5 MMT to 9.5 MMT and 0.2 MMT to 1.2 MMT, respectively. Stronger food use in the **United States** results in lower ending stocks (-0.1 MMT to 15.5 MMT). **Canada, Ukraine, and Russia's** stocks remain anchored at 4.2 MMT, 4.7 MMT, and 15.4 MMT, respectively. Stocks for **India** are raised 0.5 MMT to 12.0 MMT as exports remain restricted, but this still would be the tightest in 6 years.

Figure 10

Global ending stocks, 2016/17–2022/23

Million metric tons



Note: Major exporters include 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.

Suggested Citation

Sowell, Andrew and Bryn Swearingen. *Wheat Outlook: November 2022*, WHS-22k, U.S. Department of Agriculture, Economic Research Service, November 14, 2022.

Use of commercial and trade names does not imply approval or constitute endorsement by USDA.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.