



Wheat Outlook: March 2022

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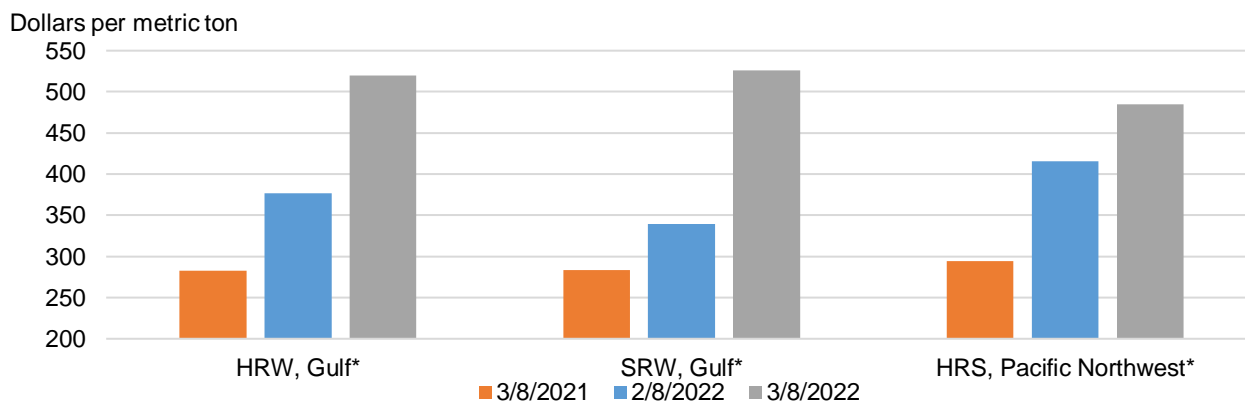
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U.S. Wheat Prices Surging

Wheat prices are surging globally in the wake of the conflict between Russia and Ukraine. Prior to this development, prices were already elevated, influenced by relatively tight supplies in key exporting countries. Major exporter ending stocks (Argentina, Australia, Canada, the European Union, Kazakhstan, Russia, Ukraine, and the United States) are collectively projected as the lowest since 2012/13. Prices are surging even higher as the conflict is raising significant questions about the ability of Russia and Ukraine to continue exporting. U.S. prices have been particularly underpinned by this development with quotes for Hard Red Winter (HRW) and Soft Red Winter (SRW) commanding the largest price increases (up more than 80 percent from last year) as these classes are the most directly in competition with Russian and Ukrainian wheat. HRW prices have also been impacted by concerns of drought in major producing areas. U.S. Hard Red Spring (HRS), typically the highest priced U.S. wheat, is currently priced lower than both HRW and SRW (figure 1).

Figure 1
U.S. wheat export prices on selected dates



*All quotes are freight-on-board. HRW = Hard Red Winter, 11.5 percent protein. SRW = Soft Red Winter. HRS = Hard Red Spring, 14 percent protein. The price quote for HRS refers to Dark Northern Spring (DNS), a subclass of HRS.
 Source: International Grains Council.

Domestic Outlook

Domestic Changes at a Glance:

- The 2021/22 all-wheat export forecast is reduced 10 million bushels to 800 million on a weak pace of export sales and shipments to date, combined with sharp price increases for U.S. wheat in recent months. Major competitor wheat prices have also surged given the conflict between Russia and Ukraine, but U.S. wheat prices have remained at a steep premium to other key origins, with additional support from continued drought conditions in major Hard Red Winter (HRW) producing states (further details in later section).
- Official exports for June 2021 through January 2022 total 553 million bushels, down 16 percent from the same period last year, based on calculations from U.S. Bureau of the Census data. This 8-month total is 69 percent of the revised marketing year (June-May) projection. Export sales (both new sales and shipments) have remained slow throughout February, as reported by USDA's Foreign Agricultural Service (FAS) in the *U.S. Export Sales* report.
- Projected exports for both HRW and Soft Red Winter (SRW) exports are lowered 5 million bushels each to 320 million and 115 million, respectively. These two classes are the most impacted by recent price increases.
- The 2021/22 all-wheat import forecast is reduced 5 million bushels to 95 million based on a lower-than-expected pace. Imports during June-January total 63 million bushels, down 14 percent from the same period last year.
 - U.S. imports of Hard Red Spring (HRS) are reduced 5 million bushels to 40. Imports of this class during June through January total 27 million bushels, representing 68 percent of the revised marketing year projection for this class.
 - Projected U.S. Durum imports were not adjusted this month. Durum imports total 26 million bushels during June-January, representing 65 percent of the marketing year forecast of 40 million bushels.
- The 2021/22 season-average farm price is raised \$0.20 per bushel to \$7.50 based on the strong farmgate prices through January as reported in the February 28 National Agricultural Statistics Service (NASS) *Agricultural Prices*. The January 2022 all-wheat farmgate price was estimated at \$8.48, which is down slightly from \$8.58 in December 2021, but well above the \$5.48 for January 2021. Futures prices have soared in recent weeks mainly based on global trade disruptions related to the Russia-Ukraine conflict, but the full effect of these

increases is not yet reflected in cash prices in many locations. These recent price movements are dampened as a significant majority of wheat marketings have been completed this marketing year (MY). On average in the last five years, about 83 percent of wheat is marketed in the first 8 months of the MY.

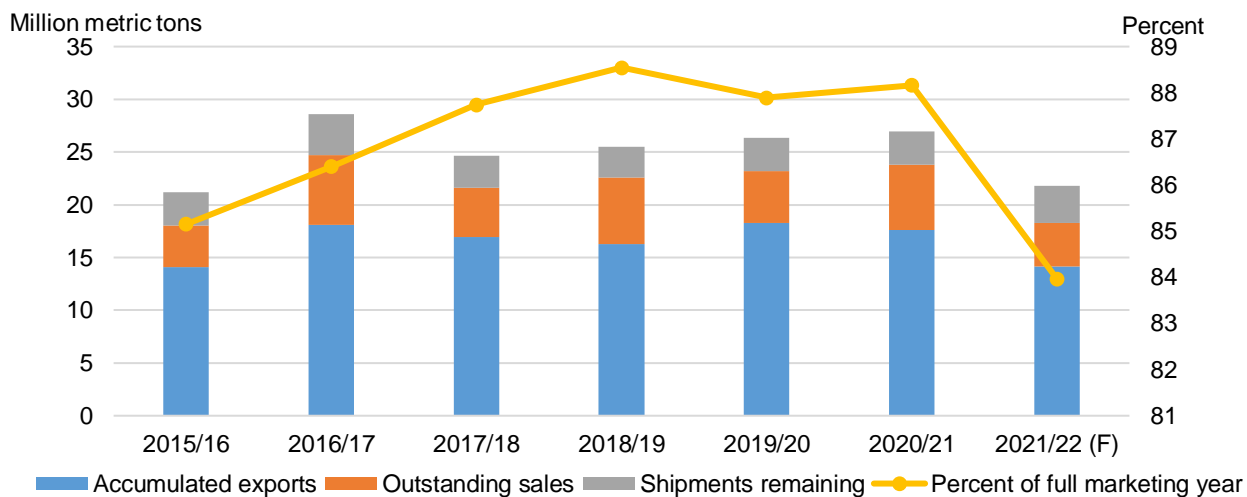
- The major changes to the U.S. all-wheat balance sheet are summarized in table 1.

Balance sheet item	2020/21 March	2021/22 February	2021/22 March	2021/22 Change month-to-month	Comments
Supply, total					June-May marketing year
Beginning stocks	1,028	845	845		
Production	1,828	1,646	1,646		
Imports	100	100	95	-5	Lower imports of Hard Red Spring (HRS) on weak pace
Supply, total	2,957	2,591	2,586	-5	
Demand					
Food	961	959	959		
Seed	64	64	64		
Feed and residual	95	110	110		
Domestic, total	1,120	1,133	1,133		
Exports	992	810	800	-10	High U.S. prices are expected to reduce competitiveness in some markets
Use, total	2,111	1,943	1,933	-10	
Ending stocks	845	648	653	+5	Ending stocks still lowest since 2013/14
Season-average farm price	\$5.05	\$7.30	\$7.50	+\$0.20	USDA, National Agricultural Statistics Service price data through January and expectations for continued strong futures and cash prices in the coming months
Source: USDA, World Agricultural Outlook Board <i>World Agricultural Supply and Demand Estimates</i> .					

U.S. Exports Reduced on Pace and High Prices

U.S. export commitments (the sum of total accumulated exports and outstanding sales) as of February 24 represent around 84 percent of the revised 2021/22 marketing year export forecast (figure 2).¹ This percentage is below the 5-year average of 88 and indicates that a larger-than-normal percentage of sales are yet to be accounted for in order for the United States to reach even the revised marketing year export forecast. There is increasing uncertainty in global wheat trade regarding the effects of the ongoing conflict between Russia and Ukraine. With global wheat prices historically elevated and volatile, it is expected that importers will ration demand by at least delaying some purchases. It is also possible that some importers may eventually turn to U.S. wheat when other exporters lack sufficient supplies. However, the current large price premium for U.S. wheat over other key competitors (discussed in the international section of this report) reduces the likelihood of a significant pivot towards U.S. wheat in the near-term. Weighing these considerations, U.S. exports have been lowered 10 million bushels to 800 million this month, which would be the lowest U.S. exports since 2015/16.

Figure 2
Cumulative exports sales through February 24 and full marketing year exports



Note: Accumulated exports and outstanding sales are as of week 39, exact dates vary by year. Shipments remaining is the difference between total commitments as of that date and the full marketing year exports.

Source: USDA, Economic Research Service calculations; USDA, Foreign Agricultural Service, Export Sales Reporting.

¹ Note that this comparison is between USDA/FAS Export Sales data and official USDA forecasts for the full marketing year. The official marketing year forecasts (as well as final data) are calculated with flour and product trade included (converted to grain equivalent).

Drought Update

According to USDA analysis and data from U.S. Drought Monitor, 73 percent of U.S. winter wheat areas are in areas of drought as of March 1 (figure 3), up slightly from what was reported last month in the *Wheat Outlook* publication. Much of this area covers key HRW growing regions of western Kansas, Colorado, Oklahoma, and Texas. The effect of dry conditions during winter wheat dormancy is evident in the USDA/NASS Crop Condition ratings, which show that conditions in key states have deteriorated in the last few months. As of March 6, 24 percent of winter wheat in Kansas is rated as being in good or excellent conditions, compared with 62 percent as of November 28. For Oklahoma, only 15 percent of the winter wheat is in good or excellent condition, compared with 48 percent on November 28. Conditions in Texas are only rated 7 percent good or excellent, compared with 20 percent on November 28. Further, much of the White wheat production area in the Pacific Northwest is still experiencing prolonged drought. However, spring weather conditions will have a larger effect on the 2022 wheat crop and winter conditions alone are not a reliable determinant of harvest potential.

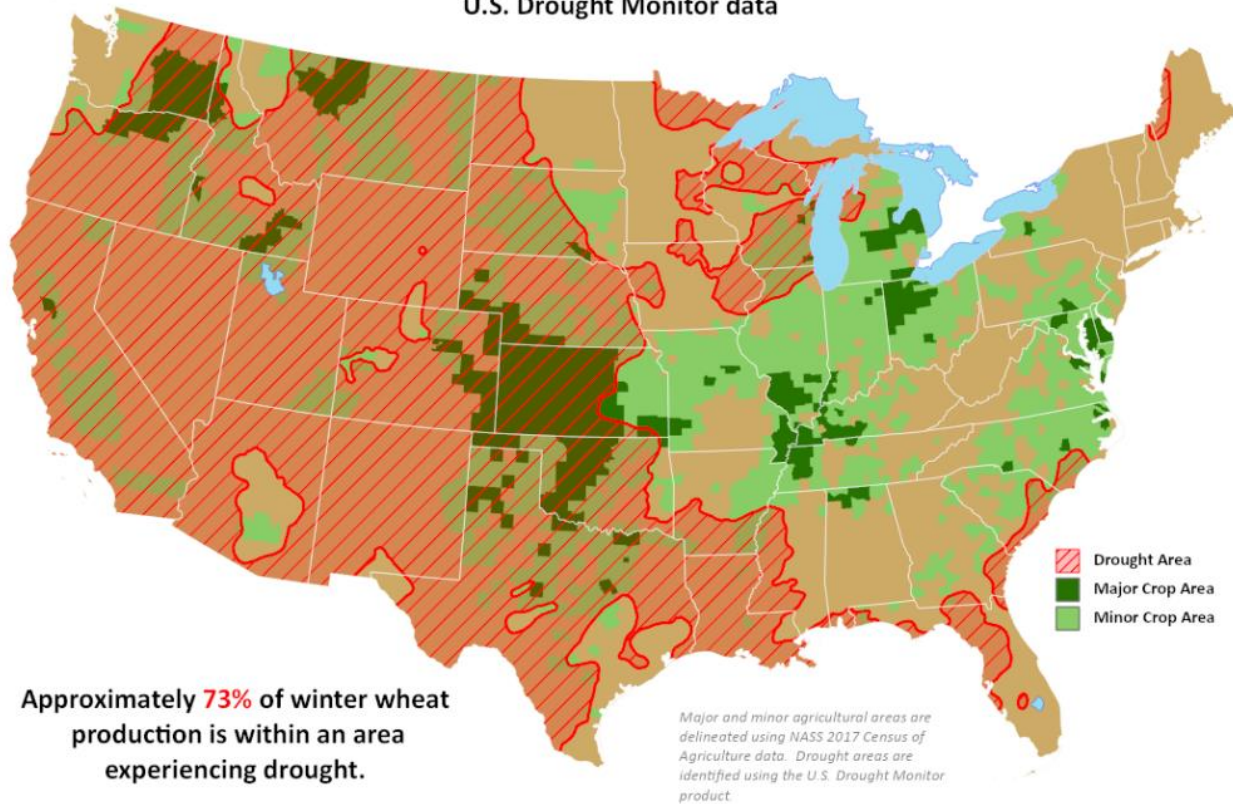
Figure 3
Large portions of winter wheat area in drought



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

Winter Wheat Areas in Drought

Reflects **March 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.

Conversely, the conditions for Spring wheat areas have improved from last month. The percent of production located in areas of drought has reduced from 55 to 41 percent with large portions of North Dakota and Eastern Minnesota not reporting drought conditions (figure 4).

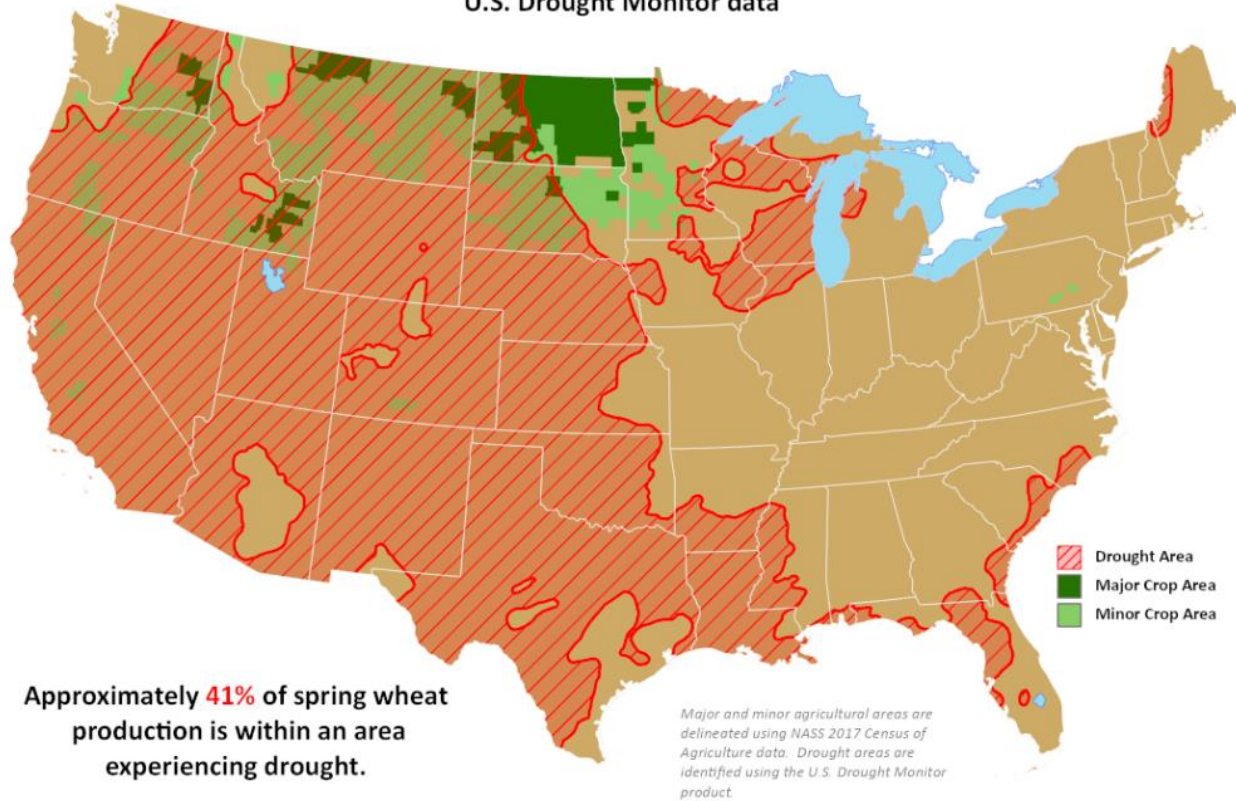
Figure 4
Spring wheat areas in drought



*This product was prepared by the
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World Agricultural Outlook Board (WAOB)*

Spring Wheat Areas in Drought

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



Approximately **41%** of spring wheat production is within an area experiencing drought.

Major and minor agricultural areas are delineated using NASS 2017 Census of Agriculture data. Drought areas are identified using the U.S. Drought Monitor product.

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.

International Outlook

Overview of the 2021/22 Global Wheat Market

For 2021/22, global wheat production is up 2.1 million metric tons (MT) to 778.5 million as **Australia** is projected to have a larger crop than expected based on an updated government estimate and is the second-consecutive record. The European Union is up slightly with a 100,000 MT increase to Poland as yields were higher than expected. Based on final government data, Russian production is lowered 342,000 MT to 75.2 million with much of the change coming from winter wheat. Winter wheat production is lowered 306,000 MT to 52.2 million as the decrease in yield offsets the increase in area harvested. Table 2 shows an overview of the global balance sheet for the 2021/22 trade year.

Balance sheet item	2020/21 March	2021/22 February	2021/22 March	2021/22 Change month to month
Supply				
Beginning stocks	296.8	289.9	290.3	↑ 0.4
Production	776.0	776.4	778.5	↑ 2.1
Trade year imports	194.9	204.6	201.1	↓ -3.5
Supply, total	1,267.6	1,271.0	1,270.1	↓ -1.0
Demand				
Feed and residual use	157.7	160.7	162.1	↑ 1.5
Food, seed, and industrial use	617.0	625.5	623.3	↓ -2.2
Domestic, total use	774.7	786.1	785.4	↓ -0.7
Trade year exports	198.7	208.4	204.8	↓ -3.6
Use, total	1,267.6	1,271.0	1,270.1	↓ -1.0
Ending stocks	290.3	278.2	281.5	↑ 3.3

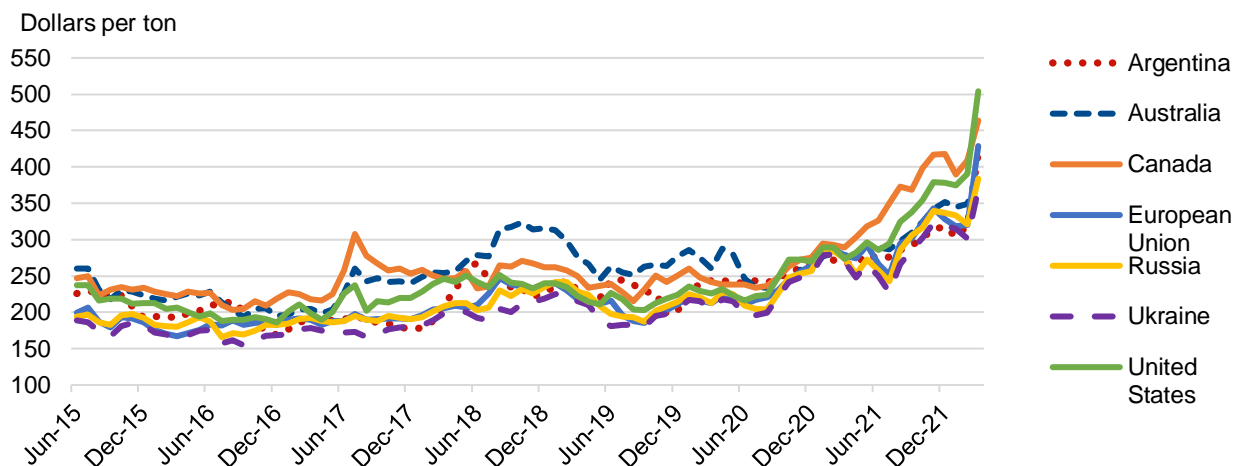
Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.

As the Russia-Ukraine conflict continues, the global wheat market is experiencing historically high global prices. Average monthly freight-on-board (FOB) bids for major wheat exporters have surged amid the Russian-Ukraine conflict (figure 5). As of March 8, the United States (U.S.) had the highest average March FOB bid out of the major exporters while Australia posted the lowest, excluding Russia and Ukraine whose prices are dampened by lack of purchases, ability to export, and depreciation of currency. The U.S. average March FOB bid is 85 percent higher than last March as lower production in 2021/22 put additional upward pressure on price. With a

record 2021/22 crop, the Australian bid only rose 40 percent compared to last March. In previous years, when production was sufficient, the United States was more price competitive in the market. Given the current conditions, however, U.S. wheat is less likely to gain demand from importers that can get supplies from lower-price sources, such as Australia or India.

Figure 5

International average monthly freight-on-board bids, June 2015–March 2022



Notes: Freight-on-board (FOB) quotes calculated as monthly averages, March 2022 partial average through March 8, Quotes used: Argentina - 12.0 percent, Up River; Australia - average of APW (Kwinana, Newcastle, and Port Adelaide); Canada - CWRS (13.5 percent) St. Lawrence; European Union - France grade 1; Russia - Milling 12.5 percent; Ukraine - <11.0 percent; United States - Hard Red Winter 11.5 percent Gulf.
Sources: USDA, Economic Research Service calculations using International Grains Council quotes.

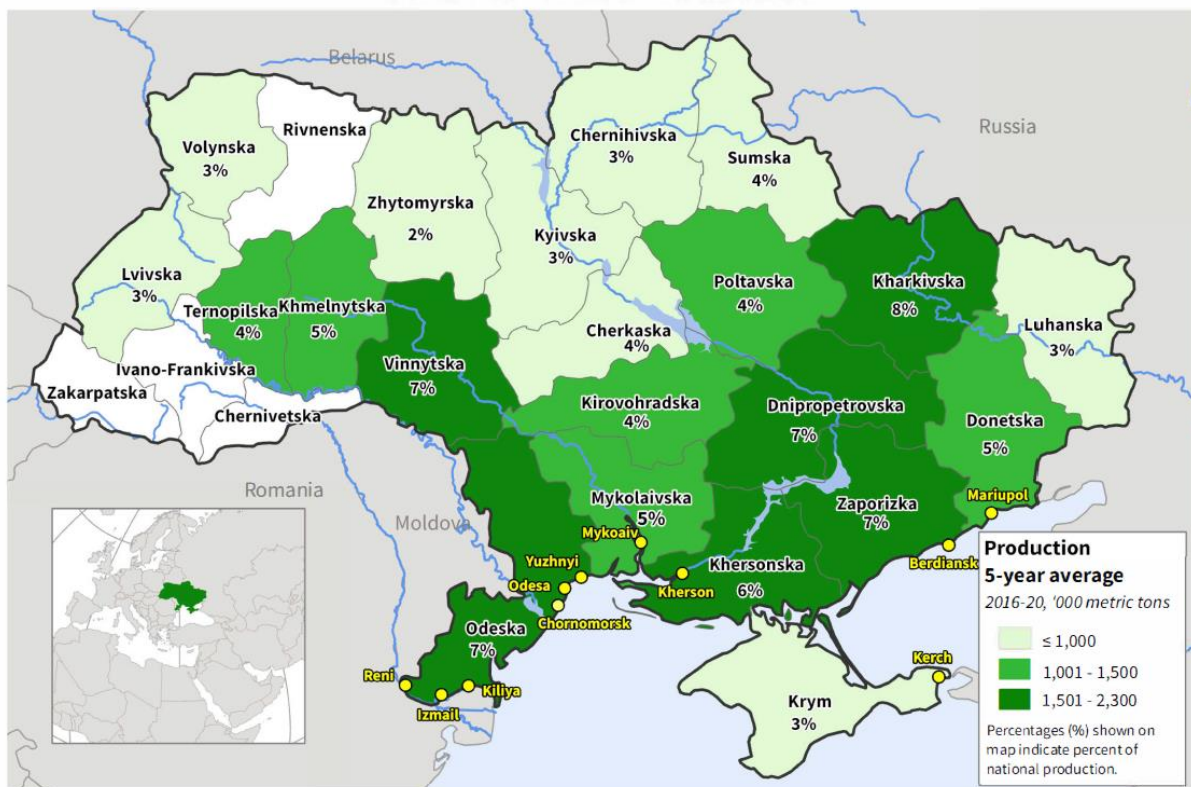
Rising global prices coupled with new trade disruptions leaves major importers seeking alternative suppliers ration demand and draw down their stocks. 2021/22 (July/June) trade year exports are down 3.6 million MT to 204.8 million as rail and vessel shipments are expected to be disrupted in the Black Sea region. Trade year imports are revised down 3.5 million MT to 201.1 million MT as importing countries will have to seek alternative suppliers at higher prices. Global consumption is lowered 0.7 million MT to 785.4 million as lower imports put constraints on food, seed, and industrial (FSI) use.

Reallocation of Trade and Demand Rationing

In 2020/21, Russia and Ukraine accounted for 28 percent of wheat exports. Amid the Russia-Ukraine conflict, global prices rose as exports are expected to be severely hindered for the Black Sea region since Ukraine's ports have remained closed since the last week of February. **Ukrainian** wheat exports are revised down 4.0 million MT to 20.0 million and **Russian** wheat exports are lowered 3.0 million MT to 32.0 million. Figure 6 shows how average wheat production in Ukraine aligns with their major seaports. Shipping through the Black Sea is the

primary artery for wheat exports for both Ukraine and Russia. Along with decreased trade flows through the Black Sea, Russia is facing financial sanctions that creates an unstable banking system as well as depreciating the value of the Russian ruble. All of these factors contribute to expectations of substantial disruptions in exports for both countries, although some trade may continue by rail to nearby markets. Russia will also be able to export some shipments via the Caspian Sea to markets such as Iran, but the ramifications of financial sanctions still loom large. With substantial disruptions to trade in this region, part of the global demand will be picked up by **India** and **Australia**, who have ample tradable supplies and are competitively priced.

Figure 6
Ukraine port locations and wheat production by oblast, 2016–20



USDA Foreign Agricultural Service
 U.S. DEPARTMENT OF AGRICULTURE

Source: State Statistics Service of Ukraine (Rosstat for Crimea Oblast)
 Average Wheat Production 2016-2020

Indian trade year (TY) exports are adjusted up 3.0 million MT to a record 10.0 million. In previous periods of tight supplies and higher prices, India was able to step up and export to additional markets. With a record production, **Australia** will export an additional 1.0 million MT to 27.0 million MT this TY. Along with higher production, Australia remains the most price competitive among the major exporters with an average March freight on board (FOB) quote of \$390 per ton. TY exports from **Canada** and **Brazil** are also forecasted up 0.3 and 0.2 million tons, respectively, as higher global prices provide extra incentives to export.

With global exports down 3.6 million MT to 204.8 million, major wheat importers will have to ration demand if they are unable to find alternative suppliers or willing to pay the higher prices. **Egypt** is one of the major importers of both Russian and Ukrainian wheat. In the 2020/21 trade year, Egypt accounted for 15 percent of Ukraine's wheat exports and 21 percent of Russia's shipments. Egypt has canceled their two latest tenders due to high prices and lack of offers. Egypt is likely to delay shipments and wait for harvest to begin in mid-April. Imports for Egypt are revised down 0.5 million MT to 12.5 million. In 2020/21, **Turkey** accounted for 18 percent of Russian exports. Rising global prices and the depreciation of the Turkish lira (down 48 percent year-over-year relative to the U.S. dollar) will make it very difficult for Turkey to continue to import wheat. Turkey imports are lowered 1.0 million MT to 10.0 million. For more information refer to the March 2022 *Grain: World Markets and Trade* by the Foreign Agricultural Service.

Outside the major importers, the **European Union** imports are lowered 0.4 million MT to 4.8 million as they were behind trend import pace. **Kenya, Sudan, Tanzania, and North Korea** imports are lowered 0.2 million MT each as slow shipments have put them behind pace of the previous projection and higher wheat prices are expected to reduce purchases. While **Algeria** remains active in their tenders, imports are reduced by 0.2 million MT to 7.5 million with the expectation that they will try to ration demand amid these high prices. Imports for **Tunisia** are expected lower (-0.1 million MT to 1.8 million MT) as they rejected all offers of their recent tender for wheat as the price was regarded as too high. **Russia** imports are reduced 0.2 million MT to 0.3 million based on lower-than-expected imports from Kazakhstan.

Offsetting part of these revisions is an increase in imports for **Belarus** (+300,000 MT to 400,000) and **Kazakhstan** (+200,000 MT to 1.4 million) as they are a part of the Eurasian Economic Union (EAEU) which is excluded from the Russian wheat export quota and can receive imports by rail. **Vietnam** is also revised up 300,000 MT to 4.1 million MT as they are expected to import more feed-quality wheat from Australia. Table 3 displays all the trade changes for the 2021/22 trade year.

Table 3 Summary of 2021/22 trade adjustments, March 2022				
Country or region	Trade year exports		Trade year imports	
	March estimate	Change	March estimate	Change
	1,000 metric tons		1,000 metric tons	
World	204,838	↓ (3,610)	201,139	↓ (3,500)
United States	22,000	↓ (500)	2,650	↓ (150)
Afghanistan			2,600	↓ (200)
Algeria	10	⇒ -	7,500	↓ (200)
Australia	27,000	↑ 1,000	200	⇒ -
Belarus	50	⇒ -	400	↑ 300
Bolivia	4	⇒ -	500	↓ (100)
Brazil	1,700	↑ 200	6,700	⇒ -
Egypt	500	↓ (400)	12,500	↓ (500)
European Union	37,500	⇒ -	4,800	↓ (400)
India	10,000	↑ 3,000	25	⇒ -
Kazakhstan	7,400	↑ 100	1,400	↑ 200
Kenya	10	⇒ -	2,000	↓ (200)
Korea, North			200	↓ (200)
Pakistan	500	⇒ -	500	↓ (200)
Russia	32,000	↓ (3,000)	300	↓ (200)
Senegal	40	⇒ -	650	↓ (100)
Sudan	5	⇒ -	2,000	↓ (150)
Tanzania			1,000	↓ (200)
Tunisia	20	⇒ -	1,800	↓ (100)
Turkey	6,250	⇒ -	10,000	↓ (1,000)
Ukraine	20,000	↓ (4,000)	100	⇒ -
Vietnam	250	⇒ -	4,100	↑ 300
Yemen			3,400	↓ (200)

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.

2021/22 Global Wheat Consumption Down

With global trade reduced, consumption of wheat is revised down 0.7 million MT to 787.3 million. Food, seed, and industrial (FSI) use is lowered (-2.2 million MT to 623.3 million) with partially offsetting reductions to feed and residual use (+1.5 million MT to 162.1 million). FSI use is lowered for quite a few countries as importers demand ration amid higher prices and other exporters decrease their FSI use to increase exports to meet the import demand. Most notably, FSI use in **India** is lowered 0.8 million MT to 96.5 million as they increase exports to the global market.

Feed and residual use partially offset these reductions with an increase of 1.5 million MT to 162.1 million as part of the grain in Ukraine is expected to be lost as a result of the conflict. With higher production, more grain is allocated to feed and residual in Australia (+0.5 million MT to 5.5 million). Vietnam is importing more feed quality wheat from Australia resulting in more going into feed and residual (+0.3 million MT to 1.7 million). As a result of lower expected supplies, Turkey feed and residual is adjusted down 0.3 million MT to 2.3 million.

An adjustment is also made to total consumption based on the local marketing year (MY) trade adjustments for 2021/22. The unaccounted trade is remains steady (-96,000 MT) at 1.8 million MT as MY exports and imports were lowered by relatively similar magnitudes. By adding this updated calculation of unaccounted trade to total consumption, the total adjusted consumption in 2021/22 is projected at 787.3 million MT.

Global Ending Stocks Raised 3.3 Million MT

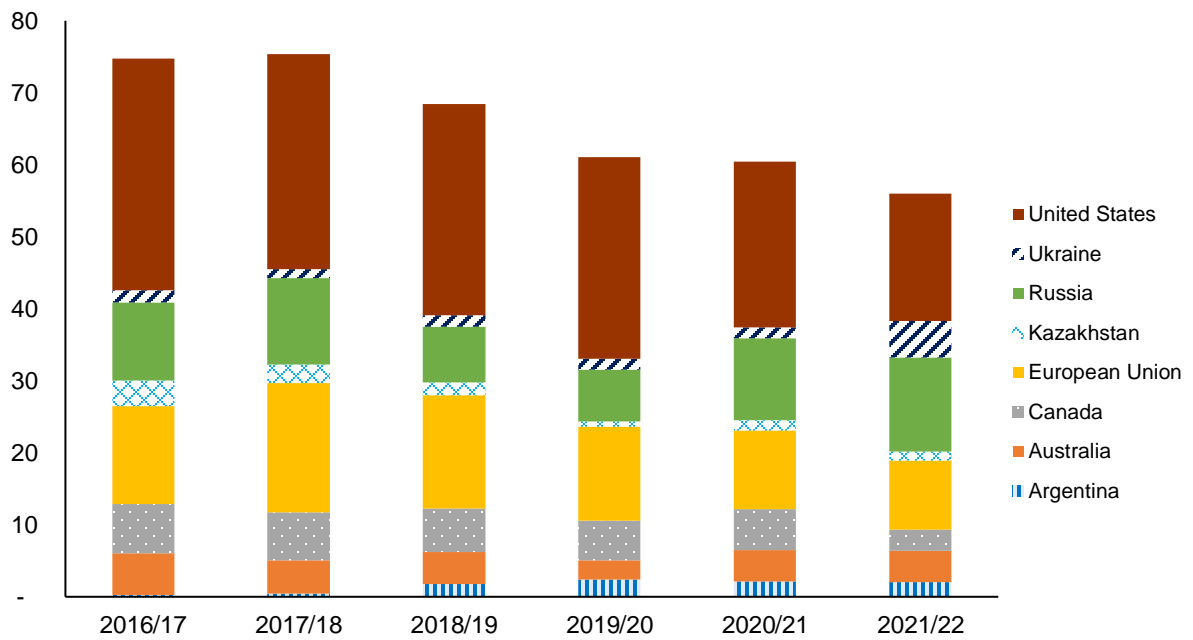
Global ending stocks are higher this month (+3.3 million MT to 281.5 million) as the increase for major exporters' ending stocks offsets the reduction for other exporting and importing countries. Major exporters' ending stocks are projected to increase 5.0 million MT to 56.0 million as Ukraine and Russia are unable to export their supplies. Ukraine's ending stocks are up 3.0 million MT to 5.0 million and Russia is up 2.5 million MT to 13.1 million. These revisions were partially offset with reductions for **Canada** (-0.2 million MT to 2.9 million), the **European Union** (-0.3 million MT to 9.6 million), and **Australia** (-0.2 million MT to 4.3 million). Major exporters' ending stocks remain the tightest since 2012/13, despite the additional stocks for Ukraine, Russia, and the United States (+0.1 million MT to 17.8 million). Figure 7 shows the major exporters' ending stocks with Russia and Ukraine rising the most in 2021/22.

Outside the major exporting countries, **India** is revised down 0.7 million MT to 25.4 million as exports are higher than expected. With lower imports, importing countries will rely on their stocks for part of their decrease in supply. **Algeria, Egypt, Pakistan, Sudan, and Turkey** all are expected to see tighter supplies going into the 2022/23 trade year.

Figure 7

Major exporters' ending stocks, 2016/17 to 2021/22

Million metric tons



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

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