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AGRICULTURE

A Special Report:

**Russia-Ukraine War and Updates
on Agricultural Markets**

By the Agriculture Research team at Refinitiv

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Prior to Russia’s invasion of Ukraine, Ukraine accounted for approximately 12% of world wheat exports, 17% of world corn exports, and 50% of world sunflower oil exports (Figure 1). The war has blocked most Ukrainian grains/oilseeds exports, disrupted Ukraine crop production, and changed global agricultural commodities trading. After over four months of Russia’s invasion, heavy fighting continues in eastern Ukraine, and Ukrainian Black Sea ports remain closed. Lack of Ukraine exports and war-induced losses in Ukraine grain/oilseeds production this summer/fall continue to negatively affect global agricultural commodities supply, keeping agricultural products and food prices at high levels and threatening food security in the world.

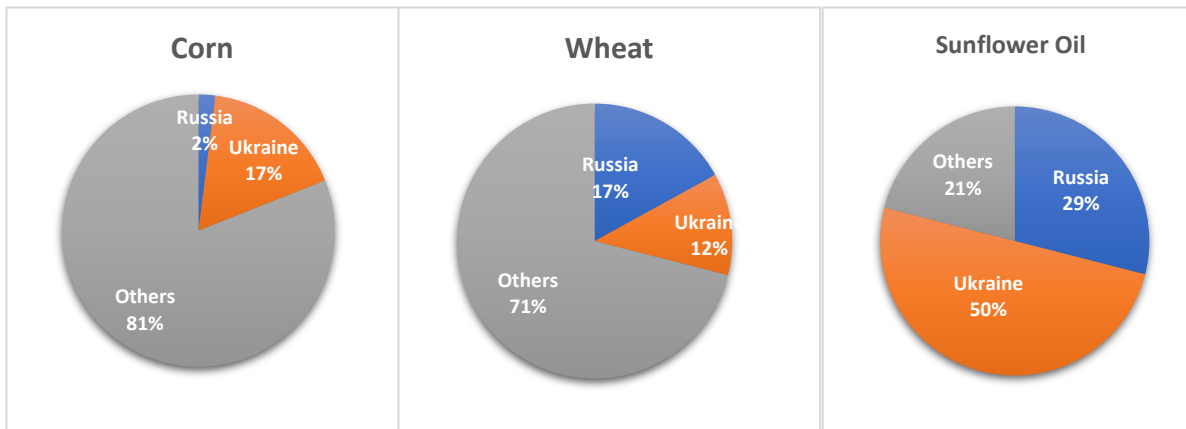


Figure 1: Proportions of Ukraine and Russia corn, wheat, and sunflower oil exports for 2020/21. Data source: USDA

Supply Shortages Threaten Global Food Security

Since the start of the war in late February, Ukraine only exported small volumes of agricultural products by rail, road, and via Danube ports due to Russia’s blockage of Ukrainian Black Sea ports (Table 1). [Middle East and African \(MEA\) countries](#), which are largely dependent on food imports from the Black Sea region, have been the most affected and need to secure their food supplies from other exporters in the European Union (EU), the Americas and [Australia](#). On the other hand, low domestic grain production, coupled with relatively weak local currencies and high international commodities prices, are resulting in elevated food inflation in some MEA countries, including Iran, Turkey, Lebanon, Kenya, Nigeria, South Africa, Sudan, etc. Food insecurity concerns are mounting in the region.

In Europe, over 40% of grain imports are from Ukraine. The war has disrupted Ukrainian grain flows into EU, and the disruption will likely continue through next season as damages to Ukraine’s trade infrastructure have largely reduced the country’s grain export capabilities. In addition, as the key importers of Ukrainian sunflower oil, India and some European countries are seeking alternative vegetable oils (e.g., palm oil, soybean oil, rapeseed oil) to fill in the gap caused by shortages of Ukrainian supply.

Table 1: 2021/22 Ukraine wheat and corn exports (million tons): pre-war exports, exports during March-June, and normal exports without war disruptions.

Ukraine	Pre-war *	March-June	Normal exports **
Wheat	18-19	0.2	24
Corn	20	2.9	33.5

*July-February for wheat and October-February for corn. ** Ukraine exports projected by USDA on February 10. Data sources: Refinitiv and USDA.

Disruptions and/or delays of Black Sea exports have pressured global grain/oilseeds supplies and threatened food security in the world. According to the United Nations World Food Programme, about 345 million people are food insecure across the world due to climate shocks, the pandemic, and soaring food and fuel costs, and the war in Ukraine is worsening the situation.

What is Happening in Ukraine after the War?

Ukrainian grain/oilseeds exports are primarily shipped through its seven Black Sea ports, i.e., shipments of about 6 million tons per month. In 2021/22, Ukraine shipped more than 45 million tons of grain/oilseeds via seaports before the war started. However, the closure of Ukrainian Black Sea ports has paused Ukrainian exports by ship through those seaports. As a result, about 20 million tons of grain/oilseeds are stuck in silos, including 4.5 million tons in the ports and stationary vessels. This backlog of grains needs to be exported to somewhat cool off international food prices and create storage space for Ukraine’s upcoming harvest. Farmers require storage space for an additional 10-15 million tons of grains, according to the Ukrainian government. Even though there have been suggestions of building temporary silos on the western border with Poland to secure harvest against damage/theft, it could take a couple of months to complete the silos, missing the large part of this season’s harvest.

Specifically, Ukraine exported only about 4.9 million tons of agricultural products during March-June after the war started in late February, with corn (61%) and sunflower seeds (21%) accounting for the largest share of these exports. Approximately two-thirds of these exports were transported by rail, while 25% were via Danube ports. Despite these incredible efforts to get food to international markets, these export volumes are substantially lower than the same period last year.

To supply international markets with agricultural commodities, Ukraine is working with some EU countries to ship commodities using their ports. However, continuing damage to Ukraine’s infrastructure suggests moving the commodities to ports outside of the country remains a big challenge. The operational difficulties and extremely high logistical costs associated with this arrangement reduce the competitiveness of Ukrainian exporters in the global markets.

2022/23 Global Wheat Trading Outlooks

In spite of disruptions of Ukrainian wheat exports by the war, Russian wheat exports are projected to reach 40 million tons in 2022/23, buoyed by high inventory and expected bumper harvest this fall. Pakistan could emerge as a significant buyer of Russian wheat, importing two million tons of wheat on a government-to-government deal. The EU is expected to be the second largest wheat exporter after Russia, supported by growing demand in the MEA and inaccessibility of Ukraine exports. In addition, the EU may benefit from relatively low Chinese wheat crop but could face competition from Russian wheat.

India was seen as an alternative supplier of affordable wheat to MEA and South Asian countries following the invasion of Ukraine by Russia. However, India imposed a ban on wheat exports effective on May 13 2022 to cool off domestic wheat prices and secure local food security. Nonetheless, India has exported about 1.8 million tons of wheat to its neighbours and the so-called “food-deficit nations” through the government-to-government mechanism since imposing the ban. India will likely continue allowing exceptions to the ban on a case-by-case basis for government-to-government deals for food security reasons.

In 2022/23, world wheat consumption (786 million tons) will outpace global wheat production (779 million tons) according to [USDA and Refinitiv forecasts](#), indicating the continuation of tight global supplies. Expectations for production gains in Russia and Australia and possible relief of Russian blockage of Ukrainian exports have lowered wheat prices recently (Figure 2). But uncertainties on Ukrainian exports, western sanctions on Russia, possible wheat export restrictions (e.g., India; Kazakhstan, Serbia), and tight wheat supplies will likely keep wheat prices at high levels through 2022/23.



Figure 2: Wheat export prices in the key export countries. Data source: Refinitiv Eikon

2022/23 Global Veg Oil Trading Outlooks

Uncertainty over Ukrainian sunflower oil supplies is fuelling a volatile vegetable oil market. Russia’s invasion of Ukraine has disrupted Ukraine’s sunflower seed and rapeseed crushing operations. Many crushing plants have stopped buying sunflower seeds from farmers and operating due to huge stocks of

sunflower seeds/oil and lack of storage facilities caused by failure to export. [Ukraine shipped](#) about 2.5 million tons of sunflower oil during October-February. After that, only 0.2 million tons of Ukrainian sunflower oil shipments were tracked during the following four months of March-June (Figure 3). Total sunflower oil exports during October-June declined by 30% from a year earlier.

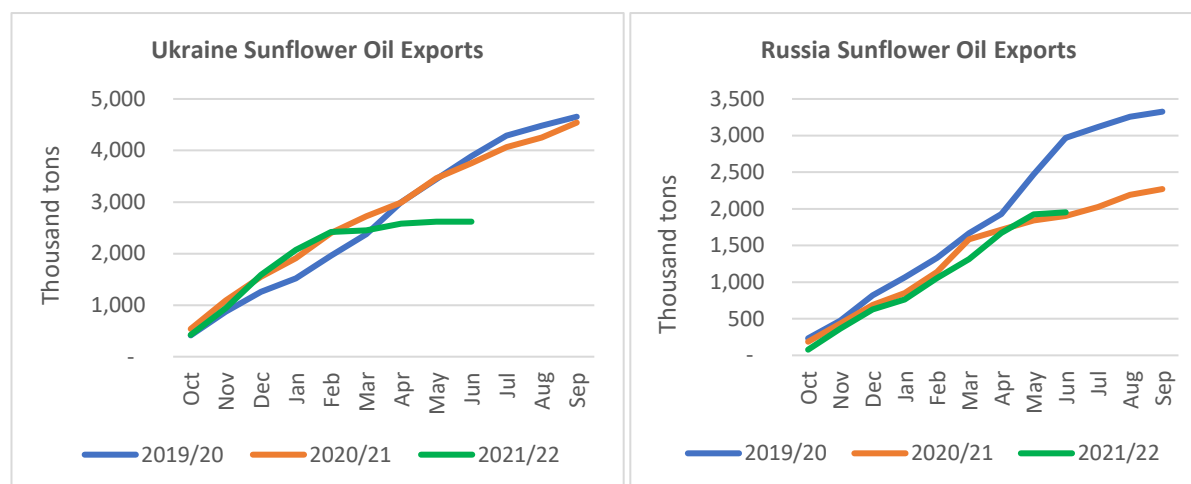


Figure 3: Accumulated Black Sea sunflower oil exports (October-June). Data Sources: Refinitiv trade flows and Ministry of Agrarian Policy and Food of Ukraine

On the contrary, [Russian sunflower oil](#) continues to flow largely into China, India, and the MEA region, according to Refinitiv trade flows. Russia shipped about 2 million tons during the first three quarters of 2021/22 (October/September) despite the soaring export tax (from \$227.2 per ton in September 2021 to \$560 per ton in July 2022).

However, lack of Ukrainian sunflower oil exports has created a sunflower oil scarcity in destinations such as India and the EU. Approximately 80% of EU's sunflower oil imports originate from Ukraine. Slashed Ukrainian exports into the EU have driven demand for rapeseed oil as an alternative in the food sector. Moreover, EU's demand for rapeseed oil for ethanol blending has increased following the Union's embargo on imports of Russian crude oil. Ukraine used to be an important supplier of EU rapeseed imports. The Ukraine war is forcing the EU to increase rapeseed imports from Canada and [Australia](#).

India typically imports 150-200 thousand tons of sunflower seed oil each month. Since last year, India has been reducing the import duty on edible oil to curb soaring domestic prices. Recently, the country allowed duty-free imports of two million tons of crude soybean oil and sunflower oil, effective May 25, for the current and the next fiscal year ending in March 2024. The move will soften local demand for crude palm oil due to more favourable soft oil margins, but sunflower oil imports are unlikely to rise sharply due to trade disruptions in Ukraine.

[Malaysia Crude Palm Oil Futures](#) for the third-month benchmark contract (FCPOc3) have recently declined but still hovered at high levels. During the second half of 2022, FCPOc3 might consolidate downward if the global vegetable oil supply tension can be effectively eased. The market will closely monitor

developments around Indonesia's export policies and a seasonal increase in production that could weigh on prices.

Millions of consumers in MEA are already experiencing the negative impact of high international vegetable oil prices. For instance, palm oil imports account for more than 85% of [Kenya](#)'s vegetable oil consumption, while [South Africa](#) and [Turkey](#) depend on international markets for all their palm oil consumption. Also, South Africa imports sunflower oil from the EU to supplement local production. These countries are vulnerable to international vegetable oil price fluctuations.

2022/23 Global Corn Trading Outlooks

[2022/23 global corn production](#) is expected to decline from the previous season, driven by war-induced substantial production losses in Ukraine, reduced corn acreage in the U.S., and overall rising input costs/availability. While prices are expected to remain at historically elevated levels for the remainder of the year, the short-term movements will likely display considerable volatility dictated by [U.S. corn yield potential](#), [Brazil second crop corn](#) developments/harvest prospects, and potential spill over support from rallies in the wheat markets. The war in Ukraine and its uncertain aftermath remains key driving forces behind production and supply dynamics.

Ukraine harvested its largest corn crop ever the previous fall. However, only 2.9 million tons of corn were exported during March through June after the war started in late February (largely by rail and through Danube ports), nearly four-fold decrease from last year (Figure 4). Refinitiv forecasts [2022/23 Ukraine corn production](#) will drop substantially from last year to 25 million tons. Should Ukrainian Black Sea ports remain closed, Ukraine corn supply to the global market will remain small. Alternatively, should Ukrainian Black Sea ports reopen, high corn inventory carried over from 2021/22 indicates that Ukraine could largely increase global corn supply.

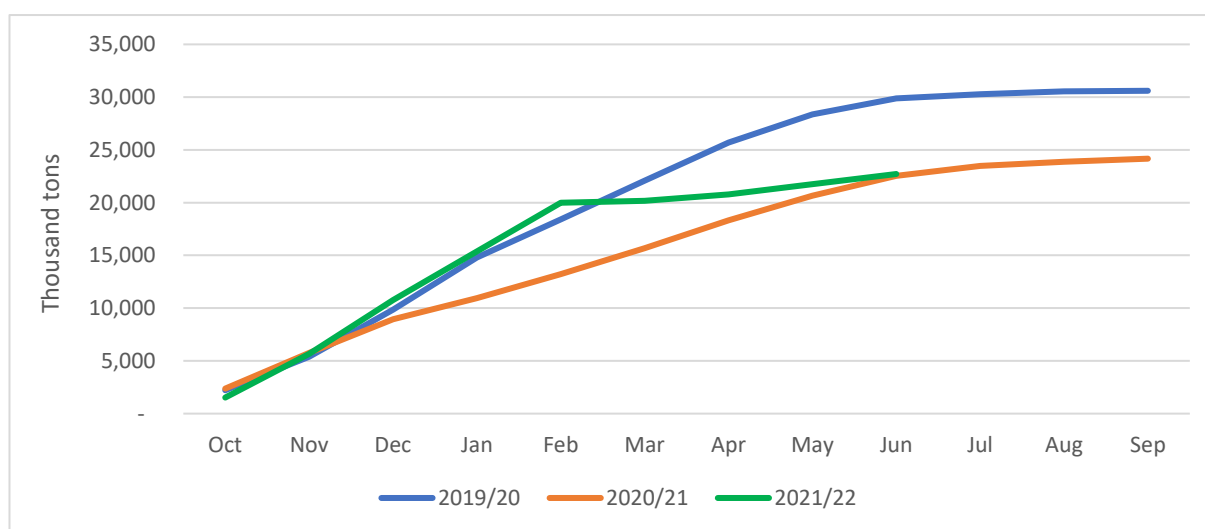


Figure 4: Accumulated Ukrainian corn exports: 2021/22, 2020/21 and 2019/20. Data sources: Refinitiv trade flows and Ministry of Agrarian Policy and Food of Ukraine

Regarding corn trading, Ukraine's corn shipments to China grew 9% year-on-year to 5.1 million tons during October 2021- February 2022. However, since the war started, Ukraine's corn exports to China fell nine-fold to 0.4 million tons through the end of June. During the same time, [China increased U.S. corn imports](#). In addition, China is working with Brazil on a protocol to allow Brazilian corn imports, which will lead to China buying more Brazilian corn. On the other hand, with limited Ukrainian corn exports to EU, the union could increase Brazilian corn imports to somewhat fill the void left by Ukraine. With such potential increase in demand for Brazilian corn, [Middle East and African countries](#) could scour the world for alternative suppliers given their dependence on Americas/Black Sea corn amid uncertainties on Ukrainian exports, high international corn prices, and elevated food inflation in the region.

Growing government food protectionism amid rising food prices

Tightening supplies and geopolitical instabilities are prompting government interventions in global markets. The key agricultural product exports have been restricted to ensure supply for domestic markets, leading to broader global trade disruptions and food inflation. In 2021, Russia implemented floating formula-based export tax to protect its domestic market, while Indonesia is frequently adjusting its export policies to curb domestic cooking oil shortages and soaring prices. In May, India imposed restrictions on sugar and wheat exports to secure domestic supplies and cool off surging prices.

Government-to-government (GTG) trade deals are growing, moving away from private sector led trade. Despite India banning wheat exports, the country continued supplying wheat to certain countries via the GTG mechanism. In May, Pakistan's Economic Coordination Committee reported that the country could import two million tons of Russian wheat on a GTG trade deal. Even though the GTG deals have been touted as a way of avoiding inflated commodity prices, they could potentially result in market uncertainty, price volatility/distortions and disruption of trade flows.

Crop Use for Biofuel vs Food Consumption - a Delicate Balancing Act for Governments

There are growing concerns about the use of crops to produce biofuels amid tightening supplies and soaring food prices. Russia's invasion of Ukraine is causing a food crisis, resulting in some policymakers advocating for easing the biofuel blending mandates to leave more grains and oilseeds for food. Still, soaring oil and gas prices are supporting demand for energy produced from crops, potentially supporting crop prices. Consequently, some governments are finding it difficult to justify the use of crops to reduce emissions instead of food amid elevated food prices at the backdrop of the pandemic-related economic challenges.

Some EU countries are reviewing biofuel policies, but it seems there is small leeway given the energy challenges facing the Union as it seeks to move away from dependence on Russian energy. On June 23, Reuters reported that some G7 nations are advocating temporary waivers on biofuels mandates to tame rising food prices. On the other hand, Indonesia and Malaysia are maintaining the same biodiesel mandate to ensure their energy security. On July 5, India reinforced higher ethanol blending levels and components of vegetable oil with gasoline and diesel. The Indian government has implemented tax exemptions to ethanol portions of 12%-15% blended with gasoline, up from 10% previously. In addition, India aims to

achieve 20% ethanol blending levels in parts of the country by next year and a nationwide mandate by 2025.

Recently, the US Biden administration issued biofuel blending mandates for 2022 and the past two years. Quotas for 2022, 2021 and 2020 were set at 20.63 billion gallons, 18.84 billion gallons and 17.13 billion gallons, respectively. According to the US Environmental Protection Agency (EPA), refiners are required to blend 20.63 billion gallons of renewable fuels with gasoline and diesel this year, of which up to 15 billion gallons will use traditional renewable fuels such as ethanol. The EPA also rejects requests from small refiners to waive previous blending obligations. High biofuel blending has the potential to raise demand for feedstock (i.e., corn, soybean, etc.) for biofuel, affecting food and fuel prices, warranting attention.

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