

## EDITOR'S NOTE

### Ukraine's Agricultural Sector: Before and After the War

Ukraine has been a cornerstone of global food security, recognized for its significant contributions to the production and export of essential agricultural commodities like wheat, corn, and sunflower oil. The ongoing war, however, has caused widespread disruptions, altering the trajectory of this vital sector.

This newsletter provides an in-depth analysis of the state of Ukraine's agricultural sector, tracing its pre-war prominence, the challenges brought on by conflict, and the steps being taken to adapt and recover. From logistical disruptions and landmine contamination to shifts in global trade, this issue examines how Ukraine's agricultural landscape has been reshaped and its implications for the global food supply.

### Pre-War Agricultural Powerhouse

Before the war Ukraine was a global agricultural powerhouse, producing key crops like wheat, corn, and sunflower oil. However, the war has significantly reshaped the agricultural landscape. Here's an overview of the sector's evolution, challenges, and current status.

Ukraine's agricultural sector spans approximately 41.3 million hectares, making up around 70% of its total land area. This includes some of the most fertile soil in the world, such as the black soil (chernozem) that is highly conducive to crop production. Approximately 80% of the agricultural area (around 33 million hectares) was used for production.

Before the war, Ukraine was:

- The largest exporter of sunflower oil, accounting for 46% of global exports (4.95 million metric tons in 2021-2022).
- A major exporter of corn (12% of global exports) and wheat (9%), ranking 4th and 5th globally, respectively.
- Home to 42.7 million hectares of agricultural land, about 71% of its total territory, producing a diverse range of crops, including barley and rapeseed.

From 2014 to 2023, Ukraine's trade dynamics have reflected significant shifts influenced by geopolitical and economic challenges:

- **Exports:** Ukraine's exports ranged from approximately \$54 billion in 2014, dropped to \$38 billion in 2015 due to the initial conflict and global price declines, and reached \$51.1 billion in 2023 after recovering from disruptions caused by the full-scale invasion. Key export commodities include agricultural products, metals, and machinery.
- **Imports:** Imports grew from \$54 billion in 2014 to \$88.5 billion in 2023, with substantial growth in energy, machinery, and consumer goods imports to meet domestic needs.



## IMPACT OF THE WAR

### Shift in Production:

The farmers have shifted focus to higher-value crops like oilseeds (e.g., rapeseed) and sugar beets, which saw a 20-25% production increase in 2023. In Ukraine, the shift to higher-value crops like rapeseed and sugar beets is particularly significant, given the country's role as a major agricultural exporter. Here's how these crops fit into Ukraine's context:

- Grain exports disrupted by logistical challenges and infrastructure damage.
- Farmers pivot to high-value, exportable crops.
- Rapeseed: High demand in Europe for biodiesel, fetching premium prices.
- Sugar Beets: Supports domestic sugar production, enhancing food security.
- Adaptable to fertile soils and limited irrigation needs, ideal for conflict-affected areas.
- Safer regions focus on these crops for profitability.
- Economic Benefits
- Rapeseed: Early harvest aids cash flow and reduces storage costs.
- Sugar Beets: Stable prices through government-industry

### The full-scale invasion disrupted Ukraine's agriculture:

1. Land Access: About 20% of agricultural land remains inaccessible due to occupation or contamination with mines. Only 40% of 500,000 hectares requiring demining has been cleared.

The statement refers to Ukraine as a whole, not just the occupied territories. About 20% of agricultural land across the country remains inaccessible due to either occupation or contamination with mines and unexploded ordnance. Of the 500,000 hectares identified as needing demining, only 40% has been cleared so far, highlighting significant challenges to restoring full agricultural activity.

The agricultural sector in Ukraine has suffered extensive damage due to the ongoing conflict. As of December 31, 2023, the total value of destroyed assets reached \$10.3 billion, an 18% increase compared to earlier estimates. This relatively modest rise is attributed to the concentration of assets in conflict zones.

The report "Russia's War Against Ukraine: Agricultural Damage Assessment" by the Kyiv School of Economics (February 2024) highlights:

- \$10.3 billion in damages to Ukraine's agricultural sector by the end of 2023, with infrastructure and machinery accounting for the largest losses.
- 20% of agricultural land inaccessible, with only 40% of contaminated land cleared.
- The report outlines immediate needs for 2024 alongside medium- and long-term strategies for rebuilding and revitalizing the sector. It also notes related challenges, such as losses in irrigation systems, food processing, agricultural logistics, and the demining of farmland, which are covered in separate sections of the RDNA study.

## IMPACT OF THE WAR

### Logistics & Exports

Export routes through the Black Sea have been repeatedly blocked, and transport costs via land routes have surged. Despite challenges, Ukraine continues to export about 70% of its agricultural produce, though the focus is shifting towards value-added products like oils and processed meals.

Despite the corridor's operation, Russia continues to pose a risk to shipping. Moscow has threatened to treat ships entering the area as potential combatants, creating uncertainty and increasing insurance and logistical costs for traders

#### Limited Capacity:

While exports have resumed, the capacity of the new corridor is lower than pre-war levels when Ukraine used multiple ports under more stable conditions. This limitation impacts the overall export efficiency and may be interpreted as a partial restriction.

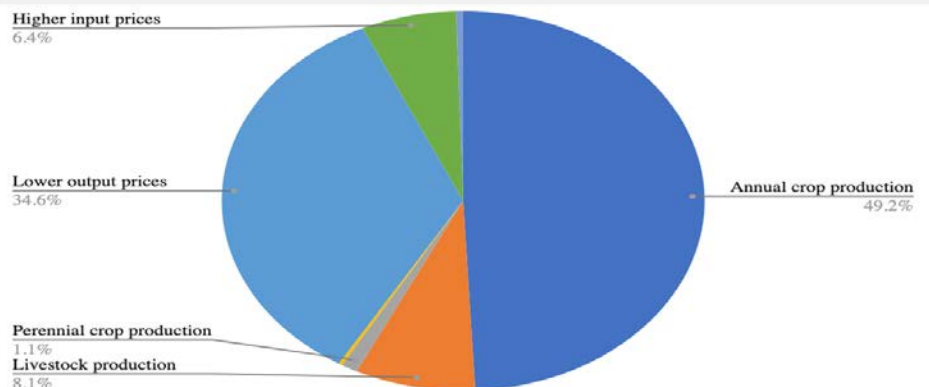
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Ukraine's agricultural exports are reaching a wide range of countries, with the European Union being the top destination. As of 2024, the leading markets include:

1. Poland
2. Germany
3. Spain
4. Italy
5. Türkiye
6. China
7. Egypt
8. Netherlands
9. Indonesia
10. India

These countries primarily import grains (such as maize and wheat), oilseeds, and sunflower oil. The EU alone accounted for a significant portion, purchasing over \$2.38 billion worth of Ukrainian agricultural goods in just one recent period. Meanwhile, China remains a key buyer, especially for corn, while Egypt and Indonesia import significant amounts of wheat due to their heavy reliance on food imports



## CURRENT STATUS

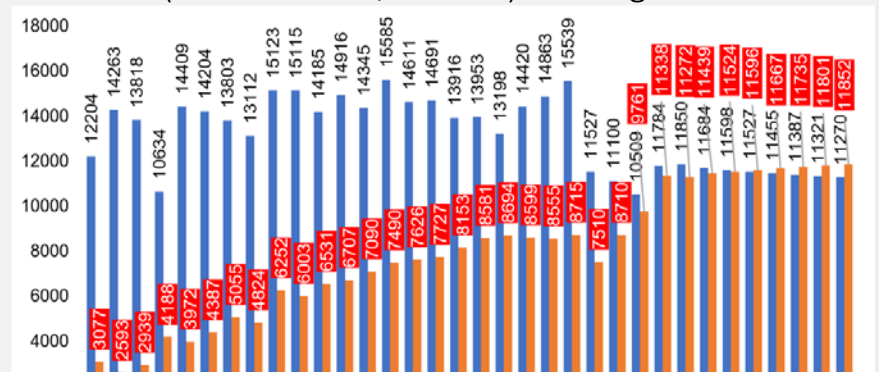
In 2023, production reached 80 million tons, a 10% increase from 2022, despite reduced acreage for grain crops

The harvest statistics for October 2024 likely **exclude regions currently occupied or heavily affected by the conflict**, such as parts of Donetsk, Luhansk, Zaporizhzhia, and Kherson oblasts. These areas have been difficult to access for agricultural activities due to security concerns, landmines, and ongoing military o  
The reported 63.7 million tonnes of grains and oilseeds harvested from 18.1 million hectares primarily come from regions under Ukrainian control. This includes key areas in the central, western, and agricultural southern regions, which remain the backbone of Ukraine's agricultural output.

## Grain and Oil Crop Harvest

As of October 2024 Ukraine has harvested approximately 63.7 million tonnes of grains and oilseeds from 18.1 million hectares of farmland. This includes 45.1 million tonnes of grains and 18.6 million tonnes of oilseeds. Key harvest details include:

- Wheat: 4.9 million hectares (100%) harvested, yielding 22.3 million tonnes.
- Barley: 1.4 million hectares (100%) harvested, yielding 5.5 million tonnes.
- Peas: 212.2 thousand hectares (100%) harvested, yielding 465.3 thousand tonnes.
- Corn: 2.7 million hectares (67%) harvested, yielding 15.4 million tonnes.
- Millet: 85.1 thousand hectares (92%) harvested, yielding 159.5 thousand tonnes.
- Buckwheat: 87.5 thousand hectares (98%) harvested, yielding 126.9 thousand tonnes.
- Sunflower seeds: 4.6 million hectares (94%) harvested, yielding 9.5 million tonnes.
- Soybeans: 2.5 million hectares (93%) harvested, yielding 5.6 million tonnes.
- Rapeseed: 1.3 million hectares (100%) harvested, yielding 3.5 million tonnes.
- Farmers are also actively harvesting sugar beet, with 170.6 thousand hectares (66%) harvested, producing 8.3 million tonnes of sweet roots.
- Leading regions in gross grain harvest include Odesa (4.4 million tonnes), Poltava (4 million tonnes), and Vinnytsia (3.3 million tonnes). In terms of yields, Khmelnytsky (68.3 centners/hectare), Bukovyna (64.9 centners/hectare), and Chernihiv (63.5 centners/hectare) rank high





## A COMPARATIVE OVERVIEW OF ANNUAL PRODUCTION TRENDS:

Ukraine's grain and oilseed production in 2023 reached approximately 80 million tons, reflecting a 10% increase from 2022 despite the ongoing challenges. However, when compared to pre-war levels, the production landscape reveals notable shifts.

Between 2014 and 2021, Ukraine consistently produced over 100 million tons of grains and oilseeds annually, with peak outputs in years such as 2019 and 2021 due to favorable conditions. For example:

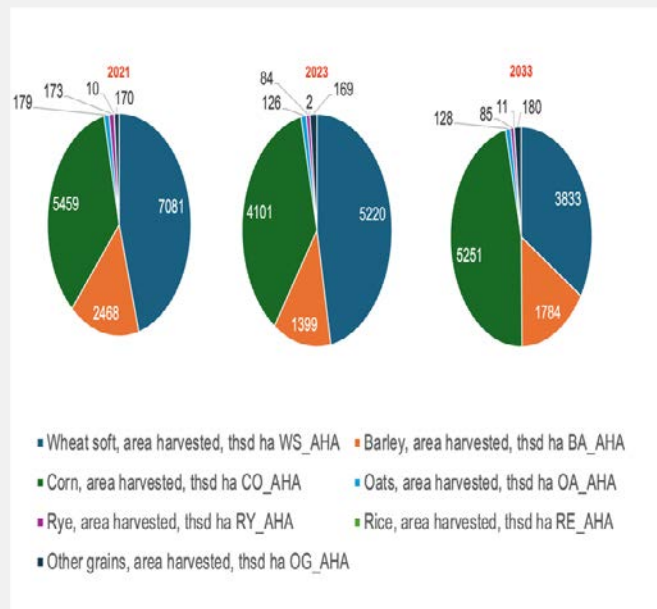
- 2019: Total production exceeded 100 million tons, with record harvests in corn and wheat.
- 2021: Production reached an all-time high of approximately 106 million tons due to strong yields and increased acreage.
- Post-2022, production volumes declined, mainly because of reduced sown areas (by about 25-30%) and the impacts of the conflict.
- Yet, resilient adaptation strategies, such as focusing on oilseeds (like sunflower and rapeseed) and maintaining output efficiency, have helped mitigate the downturn.

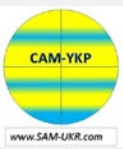
### Sugar Production:

Ukraine's sugar production for the 2024/25 marketing year is projected to reach approximately 1.55 million tonnes, according to Acting Minister of Agrarian Policy and Food, Taras Vysotskyk, as reported by AgroPortal. With carryover stocks included, the total sugar supply will more than double the domestic demand, which stands at 0.95 million tonnes.

As of early August, 33 sugar factories across Ukraine are ready for operations this season. Vysotskyk expressed optimism about uninterrupted production, noting that most of the sugar beet harvest is typically processed in the first half of the season. By year-end, the processing of at least 11.5 million tonnes of sugar beet is anticipated.

In summary, Ukraine's 2024/25 sugar production





## GLOBAL ROLE:

Ukraine remains crucial for global food security. However, costs, logistical challenges, and limited funding for farmers threaten sustained production.

The war in Ukraine has had a profound impact on the country's agricultural sector, significantly disrupting production and threatening global food security. The study "Assessing the Initial Impact of the Russian Invasion on Ukrainian Agriculture: Challenges, Policy Responses, and Future Prospects" by Maryna Nehrey and Robert Finger, published in 2022, extensively analyzes the effects of the Russian invasion on Ukrainian agriculture, focusing on the period from February 24 to July 24, 2022.

### Key Findings

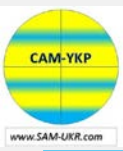
Ukraine plays a critical role in global food security due to its substantial contributions to the world's supply of grains, oilseeds, and other essential agricultural products. Before the war, Ukraine was often referred to as the "breadbasket of Europe," feeding over 400 million people worldwide. Despite challenges from the ongoing conflict, Ukraine remains among the top agricultural exporters globally.

Here's an overview of Ukraine's ranking in various agricultural exports and its impact on global food security:

Category	Global Rank (Pre-War)	Global Rank (2024)	Share of Global Supply	Key Importing Regions
<b>Wheat Exports</b>	5th	6th-7th (estimated)	~9% pre-war, now ~7%	MENA (Middle East & North Africa), Asia, Europe
<b>Corn Exports</b>	4th	4th	~16-17% pre-war, now ~14%	China, EU, North Africa
<b>Sunflower Oil Exports</b>	1st	1st	~50% globally, slightly reduced in 2024	India, EU, MENA
<b>Barley Exports</b>	3rd	3rd	~18% globally	Saudi Arabia, China, North Africa
<b>Sugar (Domestic Focus)</b>	-	-	Domestically focused; self-sufficient production	Internal market, minor exports

### Food Supply Problems

The war has significantly disrupted food supply chains, particularly in oblasts near the frontlines, such as Donetsk, Kherson, and Zaporizhzhia. Key challenges include blocked transport routes, damaged infrastructure, and limited access to agricultural inputs, leading to reduced availability of fresh produce in these areas. However, major urban centers have maintained relatively stable supplies due to international support and government intervention



## FOOD SECURITY AND PRICES IN UKRAINE.

### Farmgate Prices of Main Crops (2014-2024)

Farmgate prices in Ukraine have fluctuated significantly between 2014 and 2024 due to external factors such as global market conditions, currency devaluation, and the impacts of the war. In recent years, prices for grains and oilseeds have risen due to logistical challenges and supply chain disruptions. For example, in 2023, wheat prices ranged from \$200 to \$240 per ton, compared to \$150 to \$170 in 2014. Similarly, sunflower seed prices in 2023 reached \$500-\$550 per ton, up from \$350-\$400 in 2014

### Prices of Main Food Items (2014-2023)

Key food items such as meat, vegetables, and fruits have also seen price increases. Between 2014 and 2023:

- Meat (pork and chicken): Prices have nearly doubled due to production constraints and increased feed costs.
- Vegetables (onions, carrots, potatoes): Prices have risen by 50%-70% in major markets.
- Fruits (apples and berries): Prices increased by approximately 40%, influenced by reduced domestic production and export pressures

### Food Prices: Trends from 2014 to 2024

Ukraine's food markets have faced profound shifts over the last decade, largely driven by economic instability, the COVID-19 pandemic, and the ongoing war. Key trends include:

- Meat and dairy products: Prices have increased due to rising production costs and supply chain challenges. By 2024, recovery efforts have helped stabilize prices, but affordability remains an issue for many households.
- Vegetables and fruits: Seasonal availability and transportation disruptions have caused price fluctuations, particularly after 2022. Efforts to restore supply chains have improved accessibility, but shortages are still reported in some regions
- Grains and staples: Wheat and sunflower oil prices saw spikes during the war, with some stabilization in 2023 and 2024 as trade resumed.

A combination of drought and reduced purchasing power has caused the cost of the "borscht set" to surge by 2.5 times. According to experts, the price growth for basic goods is likely to slow down by mid-December 2024, though premium products are expected to become more expensive.

The rising costs of bread, vegetables, meat, and other essentials have become a pressing concern. Oleg Pendzin, Executive Director of the Economic Discussion Club, provided insights in an exclusive interview with UNN.

The price of the "borscht set" has skyrocketed, and bread prices are projected to climb by 10% by the end of 2024.



## PURCHASING POWER AND NUTRITION ACCESS

Between 2014 and 2023, real household incomes have decreased, limiting purchasing power. The average monthly household income in 2023 was approximately \$450, compared to \$600 in 2014 (adjusted for inflation). While basic nutritional needs are generally met, a significant portion of households, especially in conflict-affected regions, struggles with access to a balanced Purchasing Power and Nutrition Access (2014–2023)

The economic downturn during the war severely impacted purchasing power:

- Household income: The average monthly household income in Ukraine is approximately \$300–\$400. Many families struggle to meet nutritional needs, especially in regions where prices are higher due to logistical challenges
- Nutrition disparities: While urban households have better access to a variety of foods, rural and war-affected regions face higher prices and limited supply, contributing to malnutrition risks
- According to a survey reported by ZN.ua on July 25, around 32% of Ukrainian families can only afford basic food items with their current income. The survey was conducted prior to the government’s recent proposal to increase wartime taxes, as Ukraine seeks additional funding to address the financial strain caused by the ongoing conflict with Russia.

## Food Supply Challenges: Impact of the War

The war exacerbated existing food supply issues, especially in regions near the front lines:

National food supply: Ukraine has managed to stabilize food availability in many regions, thanks to international aid and domestic agricultural resilience. However, infrastructure damage and blockades have limited access to essential goods in some areas.

Critical shortages: In oblasts like Donetsk, Luhansk, and Zaporizhzhia, residents experience food insecurity due to damaged infrastructure and restricted movement of goods.

Aid dependency: These areas rely heavily on humanitarian assistance for basic supplies. NGOs and government agencies have ramped up efforts, but challenges persist

## Food Assistance by International Organizations

Numerous international organizations provide food assistance to vulnerable populations in Ukraine. Major contributors include:

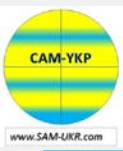
World Food Programme (WFP): Distributes food parcels and cash assistance to displaced populations.

UNICEF: Focuses on nutrition for children and pregnant women.

International Committee of the Red Cross (ICRC): Provides emergency food and essential goods in conflict zones.

NGOs such as CARE International and Save the Children: Operate food distribution programs in rural and high-risk areas.





## LOOKING FORWARD

The future of Ukrainian agriculture depends on:

- Demining operations: Expanding access to affected lands.
- Improved logistics: Developing stable export routes and minimizing costs.
- Global support: Continued international aid to address funding gaps and stabilize production
- Russia is actively sabotaging Ukraine's agriculture by laying mines, targeting infrastructure, and illegally exporting Ukrainian grain, Prime Minister Denys Shmyhal stated at the Third International Food Security Summit on November 23, 2024. He likened these actions to the Holodomor, accusing Russia of exacerbating global food insecurity, especially in Southeast Asia and Africa.
- Despite these obstacles, Ukraine has harvested over 53 million tonnes of grain and surpassed last year's export figures, aided by the Black Sea Logistics Corridor. Shmyhal highlighted Ukraine's potential

## Several organizations are working on demining operations in Ukraine

Several organizations are working on demining operations in Ukraine, focusing on clearing land contaminated by landmines and unexploded ordnance (UXO). Some of the key organizations involved in this effort include:

### Key Organizations:

1. **Swiss Foundation for Mine Action (FSD):**
  - Active in regions such as Chernihiv, Kharkiv, Donetsk, and Kherson, FSD has deployed over 600 staff members to assist in landmine clearance operations and raise awareness about the dangers of mines.
2. **The HALO Trust:**
  - This international NGO is one of the largest mine clearance organizations working in Ukraine. It focuses on clearing land to make it safe for both civilians and farmers
3. **Geneva International Centre for Humanitarian Demining (GICHD):**
  - GICHD supports Ukraine by providing technical advice and resources to enhance the efficiency of mine clearance activities. It works in partnership with local authorities to build their capacity for managing demining operations.
4. **International Committee of the Red Cross (ICRC):**
  - The ICRC has been involved in providing assistance for demining operations, alongside efforts to educate the public about the risks of unexploded ordnance.
5. **National Mine Action Center of Ukraine:**
  - This government body coordinates mine clearance efforts within Ukraine and collaborates with international organizations to ensure safety and efficiency

For further inquiries, insights, or collaboration opportunities, please visit our website or reach out directly:

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