

IMPACT OF THE RUSSIAN MILITARY INVASION ON UKRAINE'S AGRICULTURE AND TRADE

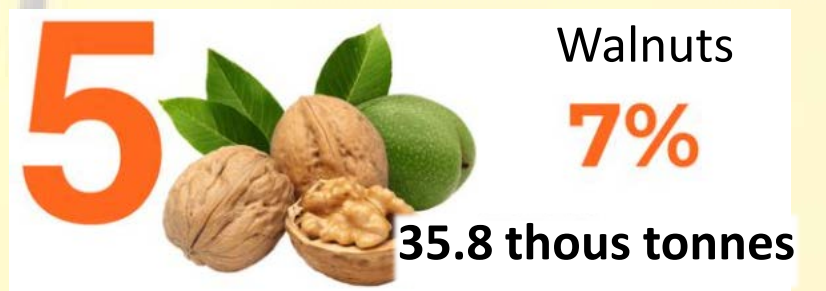


Antonina Broyaka

Extension Associate of Agricultural Economics Department,
Kansas State University

PhD in Economics, Associate Professor from Ukraine

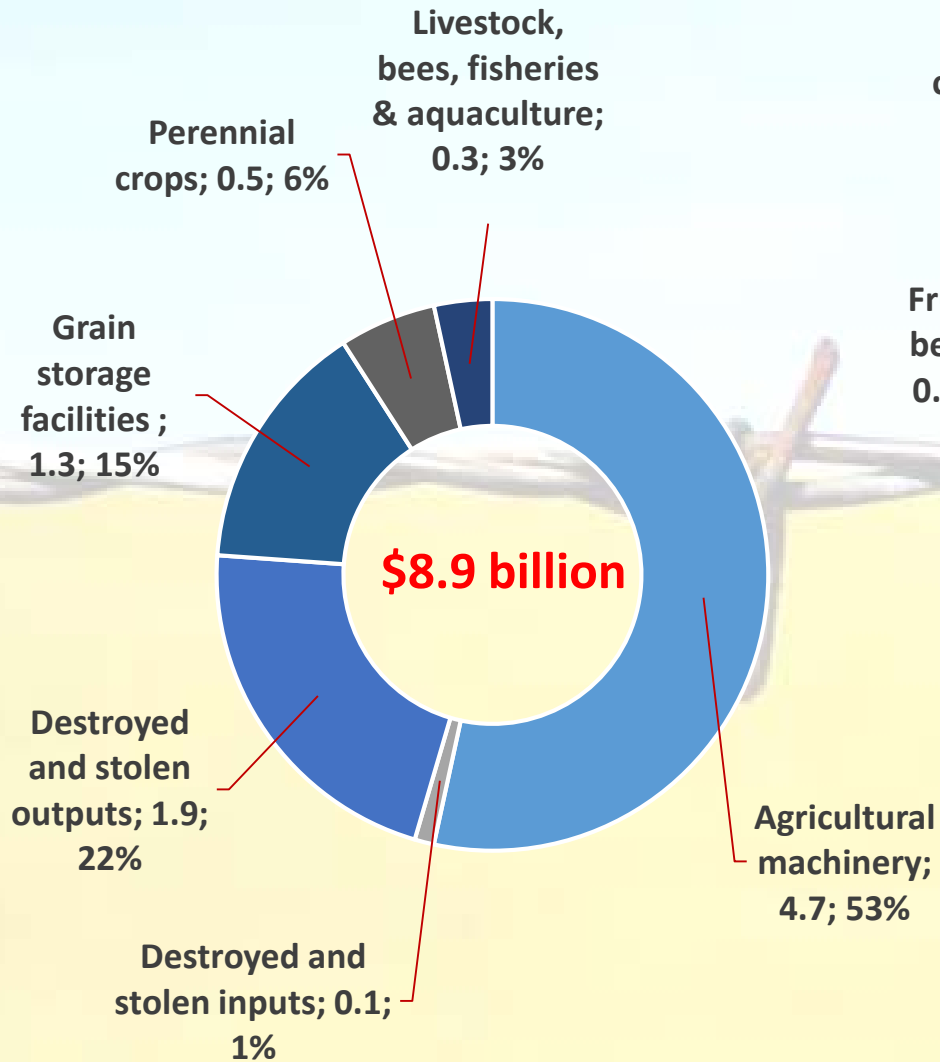
UKRAINE'S PLACE IN GLOBAL AGRICULTURAL EXPORTS IN 2021



% - a share in the global structure of agricultural exports

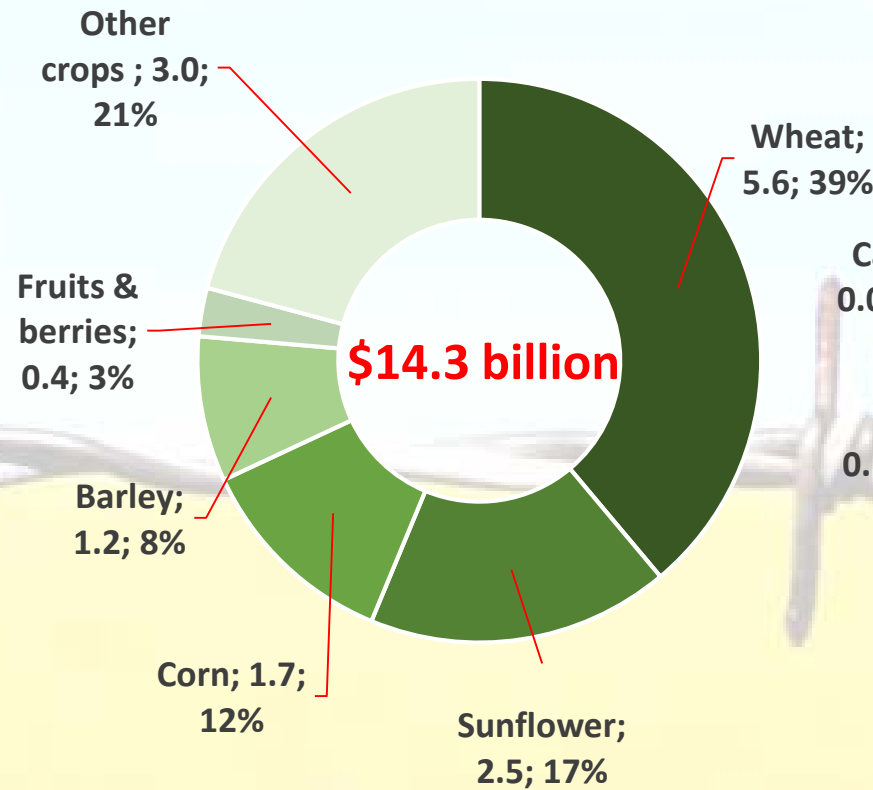


DIRECT DAMAGE FROM THE WAR TO UKRAINIAN AGRICULTURE, \$ billion

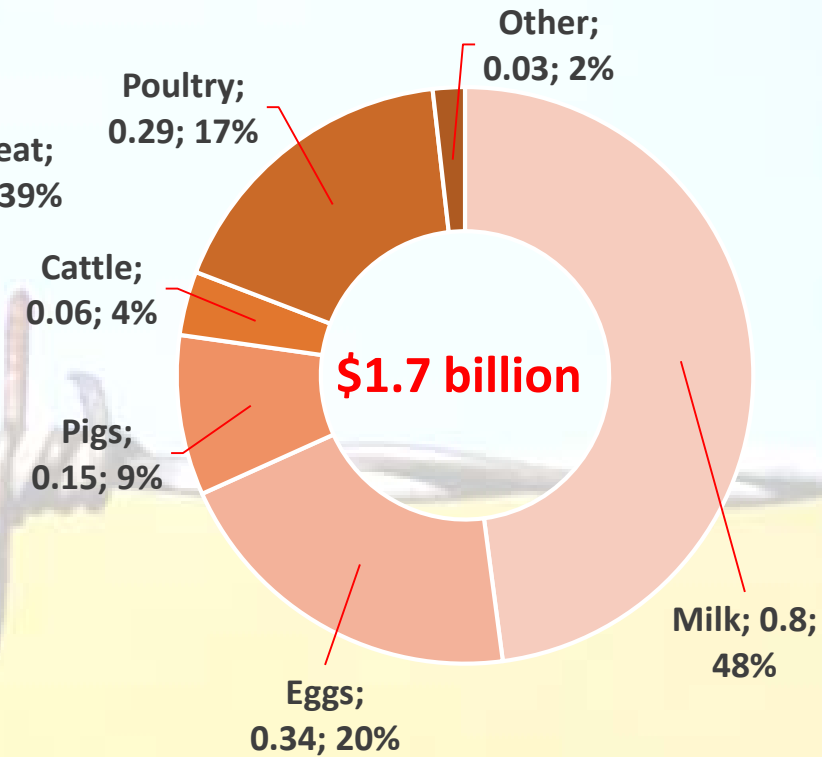


INDIRECT LOSSES FROM THE WAR TO UKRAINIAN AGRICULTURE, \$ billion

Crop losses due to lower production, \$ billion



Livestock losses due to lower production, \$ billion



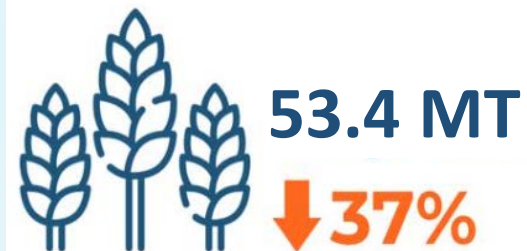
Other losses: \$15.6 billion

- due to decrease in the prices for export-oriented commodities - \$14.5 billion;
- due to increase in the prices for fertilizers - \$377.1 million;
- due to increase in the prices for fuel - \$467.4 million;
- recultivation of the land affected by battles and missiles - \$183.9 million;
- fisheries and aquaculture losses - \$53.8 million

CHANGES IN AGRICULTURE FOR THE YEAR OF THE WAR IN UKRAINE (2022 vs. 2021)

PRODUCTION

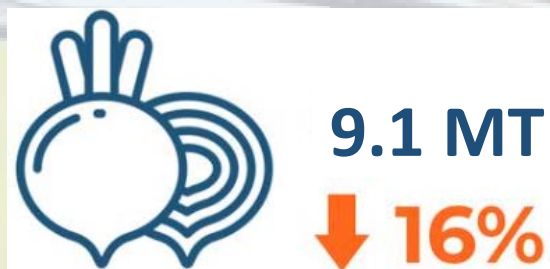
Grain



Oil seeds



Sugar beets



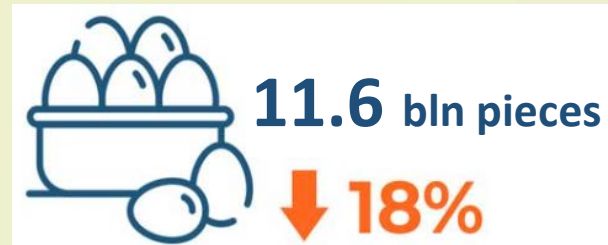
Meat, all types



Milk



Eggs

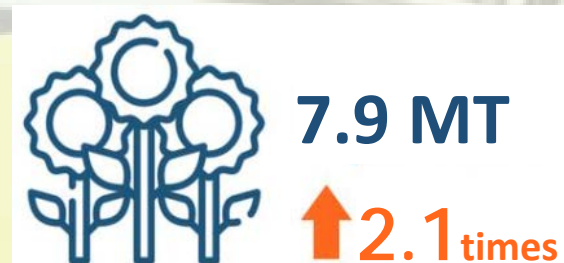


EXPORT

Grain



Oil seeds



Vegetable oil



THE PRICE GAP BETWEEN THE WORLD AND DOMESTIC PRICES (at the end of the year)

Wheat



Corn



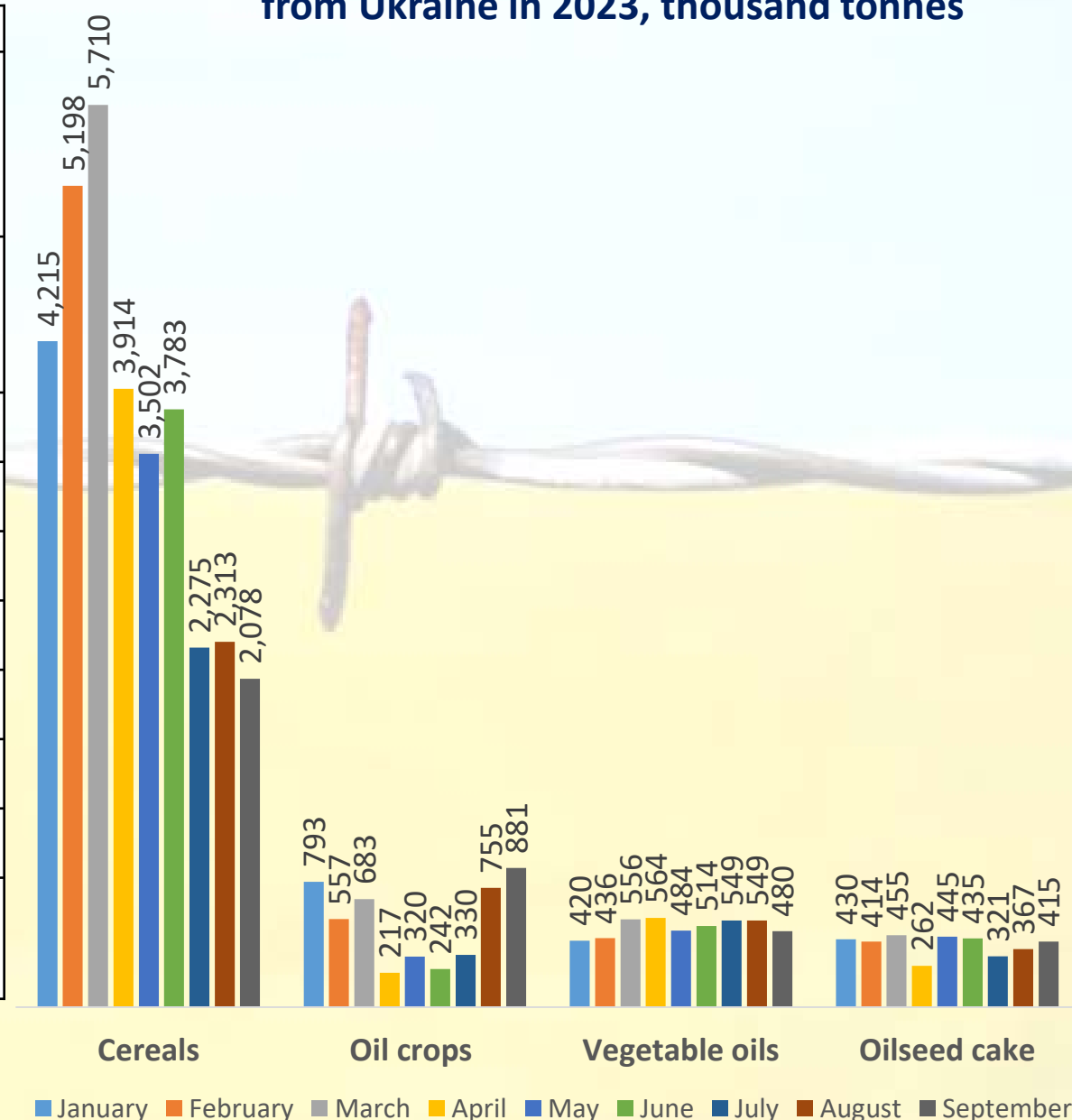
Source: based on data of Ministry of Agrarian Policy and Food of Ukraine, State Customs Service of Ukraine and UCAB

EXPORT OF GRAIN AND LEGUMES FROM UKRAINE

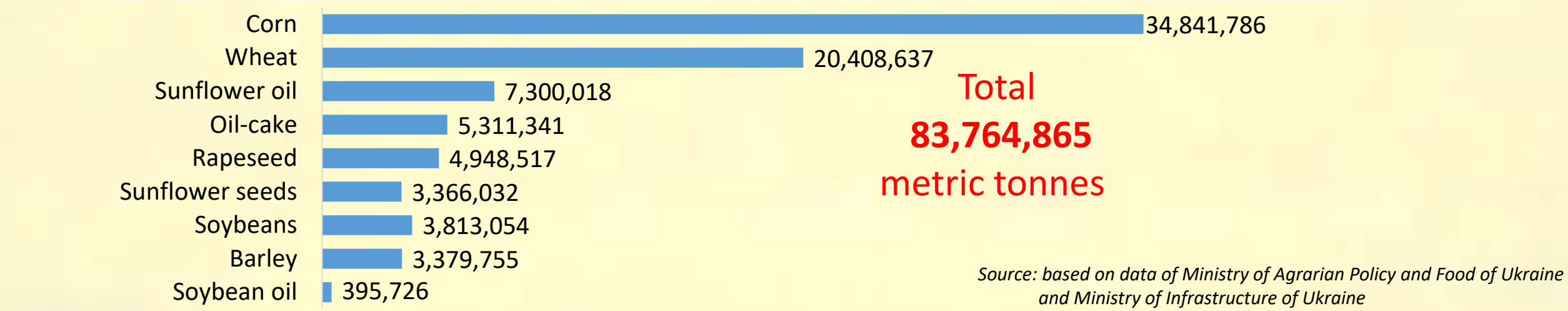
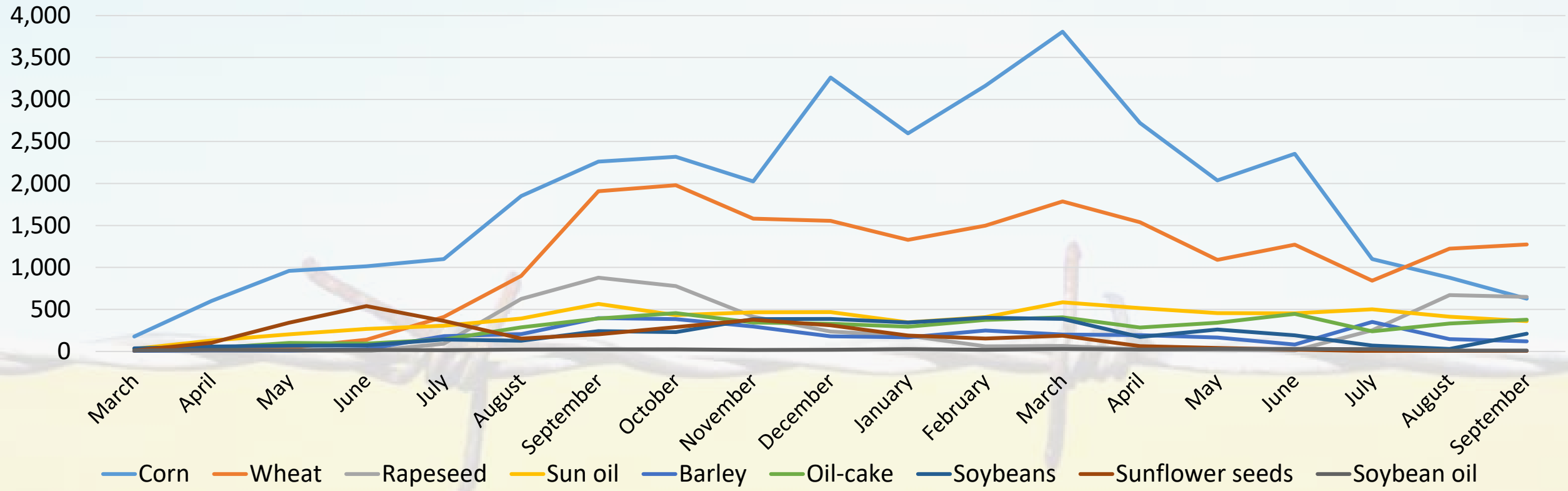
with products of their processing (MY – Marketing year July-June),
thousand metric tonnes

	2020/2021	2021/2022	2022/2023 MY		2023/2024 MY	
	MY Total	MY Total	Total	incl. Oct. 2022	Total, as for October 23, 2023	incl. Oct. 2023
Grain and legumes, total	43,939	48,508	49,079	3,159	8,333	1,580
• wheat	16,413	18,741	16,900	1,450	4,158	824
• barley	4,210	5,752	2,713	243	663	41
• rye	15.8	161.9	18.0	1.9	0.9	0.1
• corn	22,596	23,535	29,299	1,455	3,391	706
Wheat flour	123.7	69.4	148.1	8.1	39.4	4.7
Other flour	1.1	1.5	6.2	0.2	1.3	0.3
<i>Total flour</i>	<i>124.8</i>	<i>70.9</i>	<i>154.3</i>	<i>8.3</i>	<i>40.7</i>	<i>5.0</i>
Total export (grain+flour)	44,105	48,579	49,233	3,167	8,374	1,585

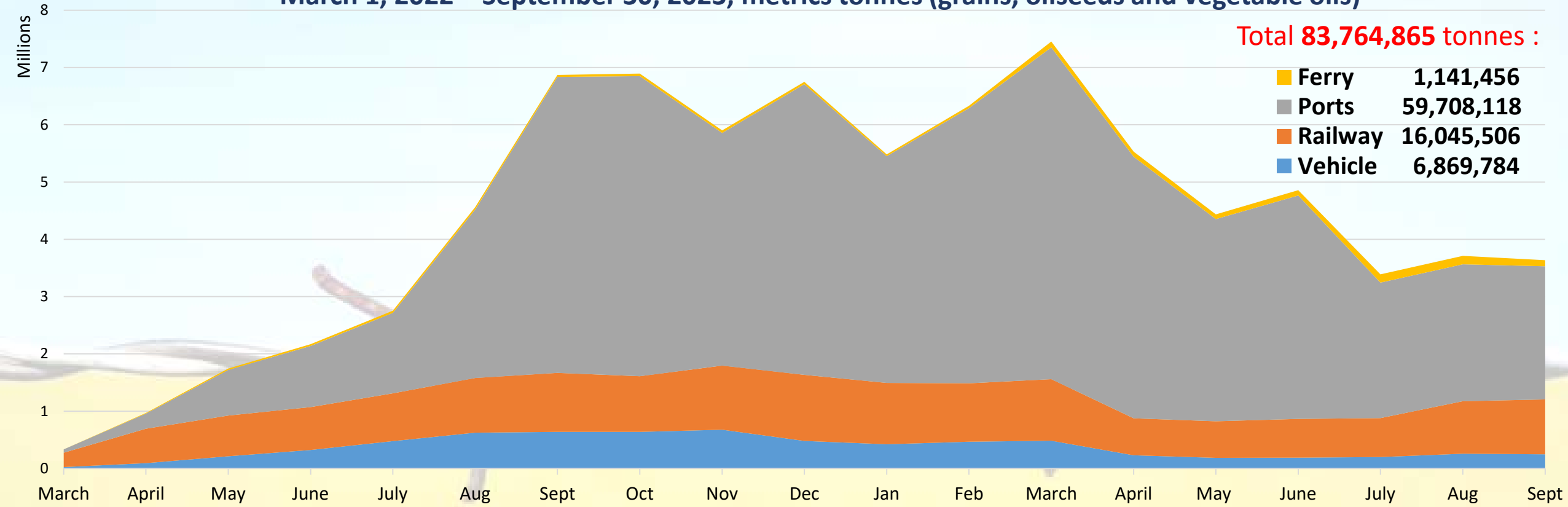
Dynamics of main agricultural products export from Ukraine in 2023, thousand tonnes



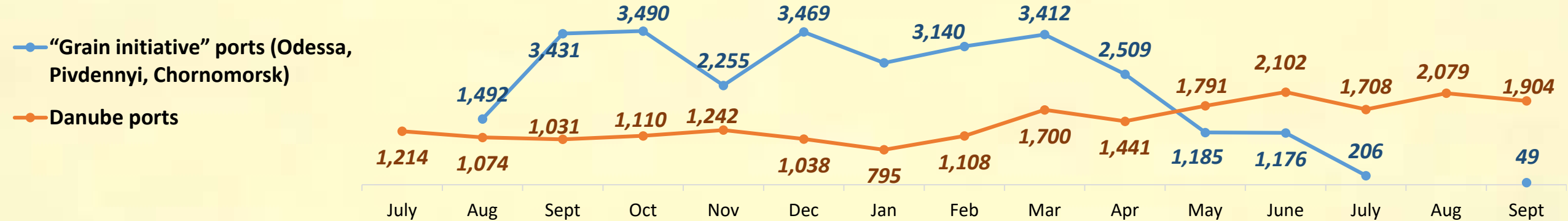
EXPORT SHIPMENTS FROM UKRAINE DURING THE WAR TIME BY TYPES OF AGRICULTURAL COMMODITIES, March 1, 2022 – September 30, 2023, thousand metric tonnes



AGRICULTURAL COMMODITY EXPORT SHIPMENTS FROM UKRAINE IN TRANSPORTATION BREAKDOWN, March 1, 2022 – September 30, 2023, metrics tonnes (grains, oilseeds and vegetable oils)



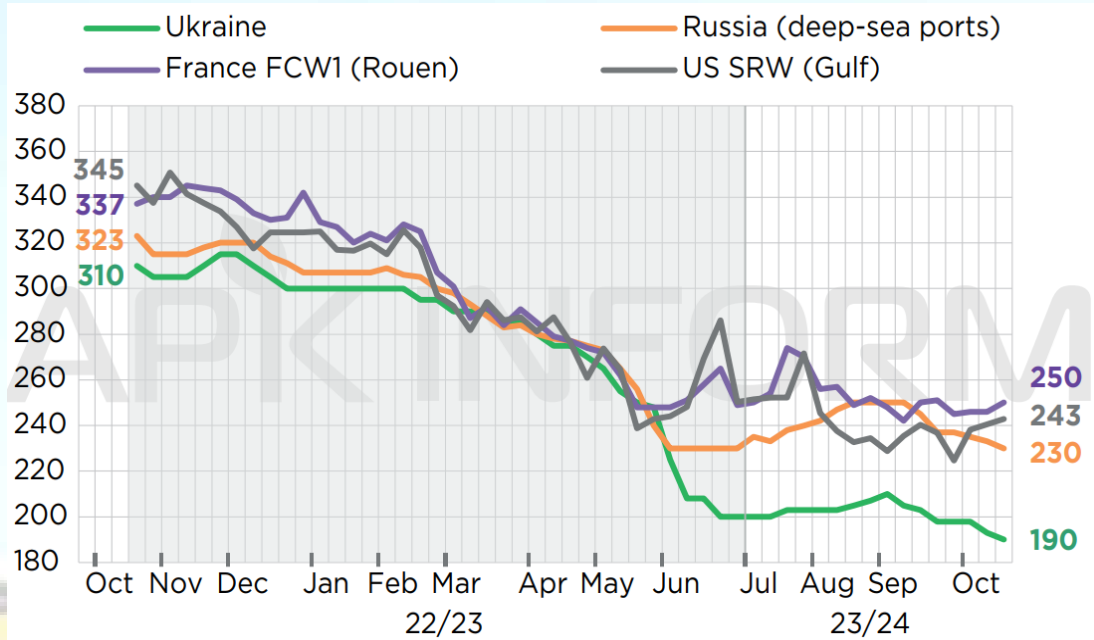
EXPORT OF GRAINS AND OILSEEDS FROM UKRAINIAN PORTS (wheat, corn, barley, sunflower seeds, rapeseeds, soybeans), thousand tonnes



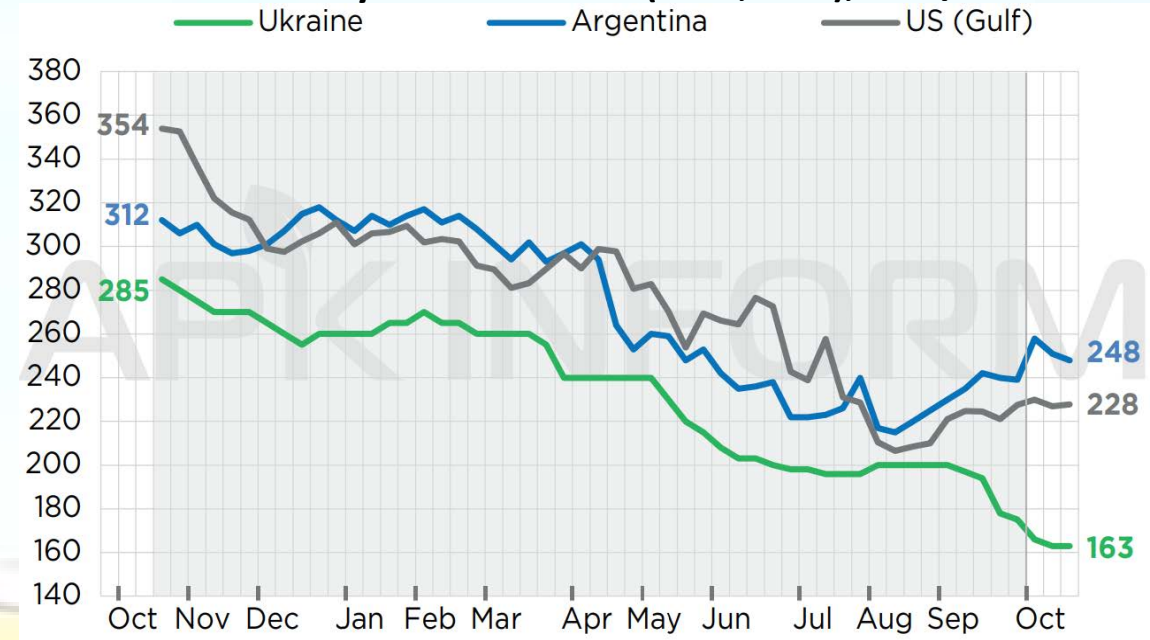
Source: based on data of Ministry of Agrarian Policy and Food of Ukraine and Ministry of Infrastructure of Ukraine

IMPACT OF THE WAR ON GRAIN PRICES

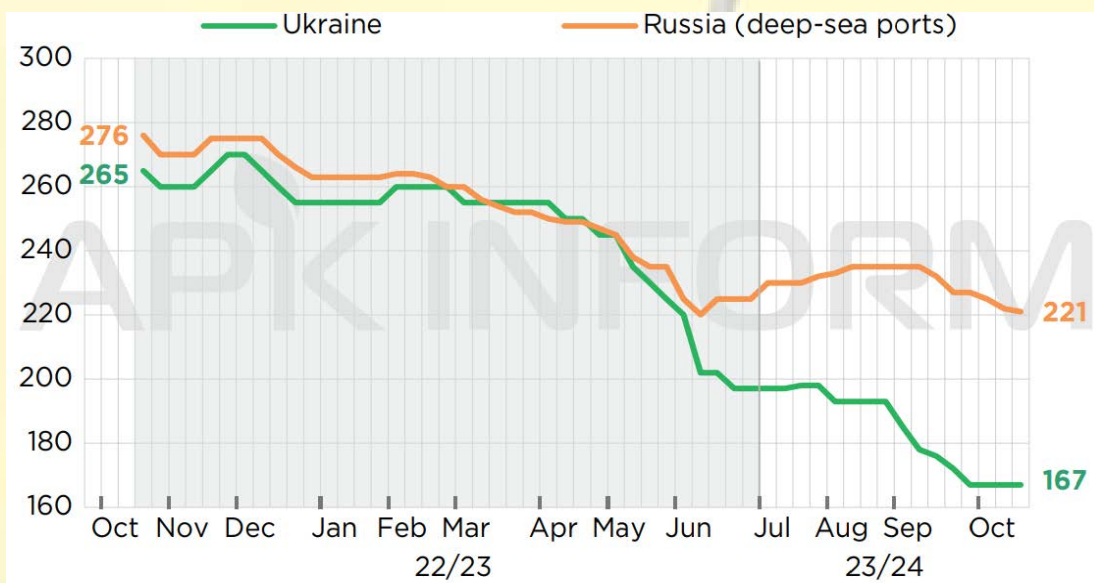
Price dynamics of milling wheat (offer, FOB), USD/t



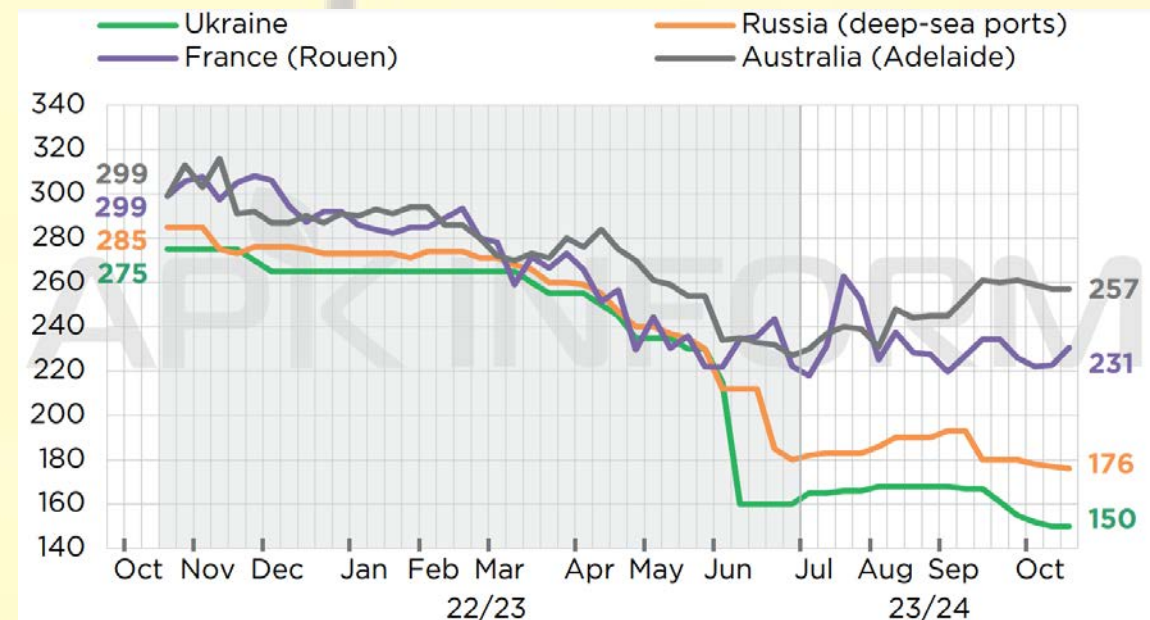
Price dynamics of corn (offer, FOB), USD/t



Price dynamics of feed wheat (offer, FOB), USD/t



Price dynamics of feed barley (offer, FOB), USD/t



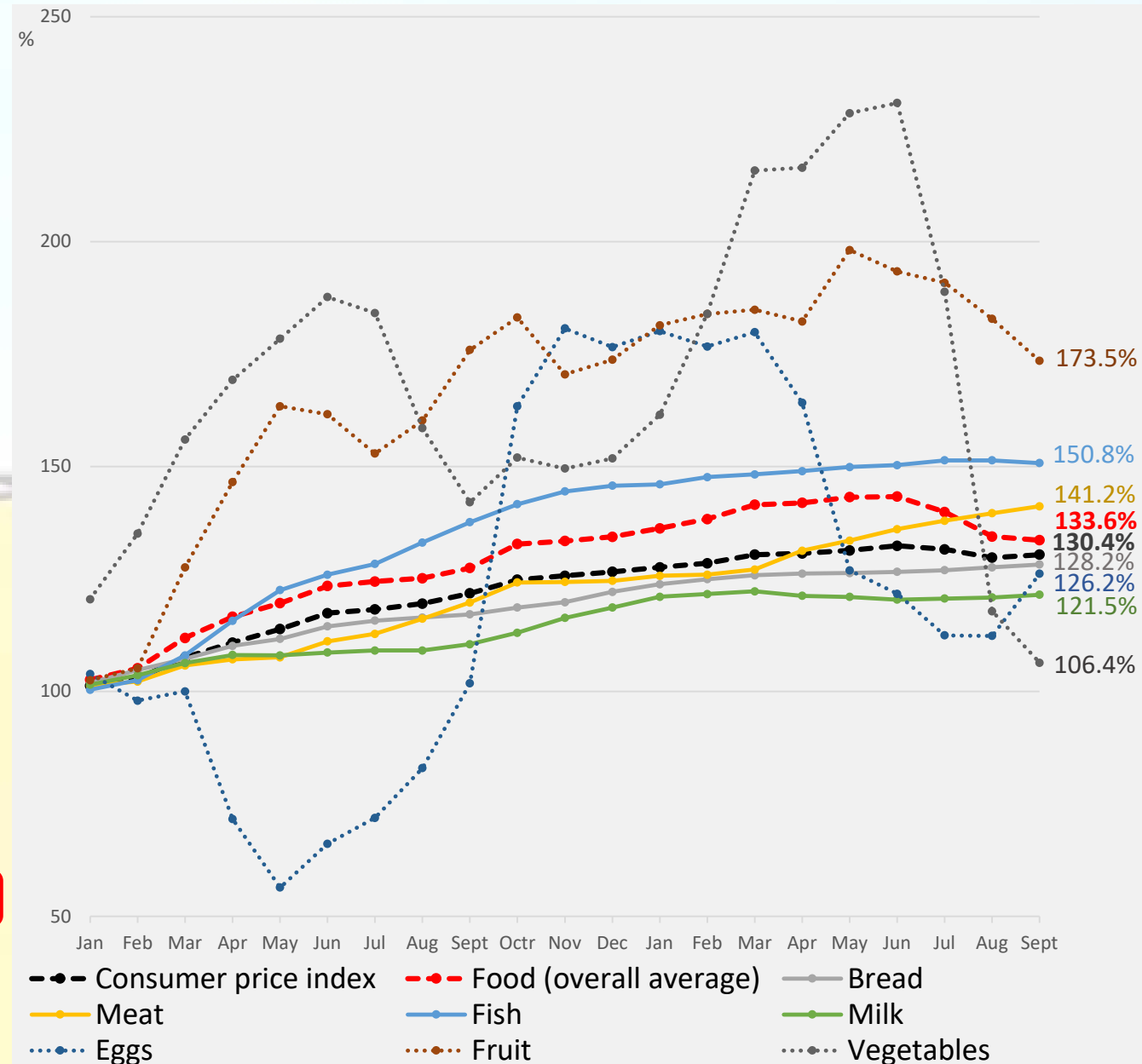
GLOBAL FOOD SECURITY INDEX 2022

Rank (113 countries)		Overall score	Affordability	Availability	Quality and Safety	Sustainability and Adaptation
59 th	South Africa	61.7	63.4	60.1	66.1	56.9
60 th	Honduras	61.5	59.8	61.9	64.9	60.0
61 st	Serbia	61.4	81.5	49.3	72.6	37.0
62 nd	Tunisia	60.3	74.5	54.1	58.8	49.7
63 rd	Indonesia	60.2	81.4	50.9	56.2	46.3
=64 th	Thailand	60.1	83.7	52.9	45.3	51.6
=64 th	Colombia	60.1	64.6	54.6	63.3	56.9
66 th	Azerbaijan	59.8	78.1	56.2	54.5	44.6
67 th	Philippines	59.3	71.5	55.2	65.3	41.8
=68 th	Algeria	58.9	66.8	57.3	54.7	54.2
=68 th	India	58.9	59.3	62.3	62.1	51.2
70 th	Paraguay	58.6	74.3	47.0	76.3	32.8
71 st	Ukraine	57.9	66.6	48.1	71.3	43.5
72 nd	Myanmar	57.6	62.1	53.5	64.4	49.0

Ukraine declined from rank **58** in 2021 to **71** in 2022

Source: Economist Impact

FOOD INFLATION IN UKRAINE (deviation of the Consumer Price Index on a cumulative basis to the previous month, Jan. 2022 - Sept. 2023)



Source: based on data of the State Statistic Service of Ukraine

HARVESTING OF GRAIN, LEGUMES AND OIL CROPS IN UKRAINE, as of October 20, 2023

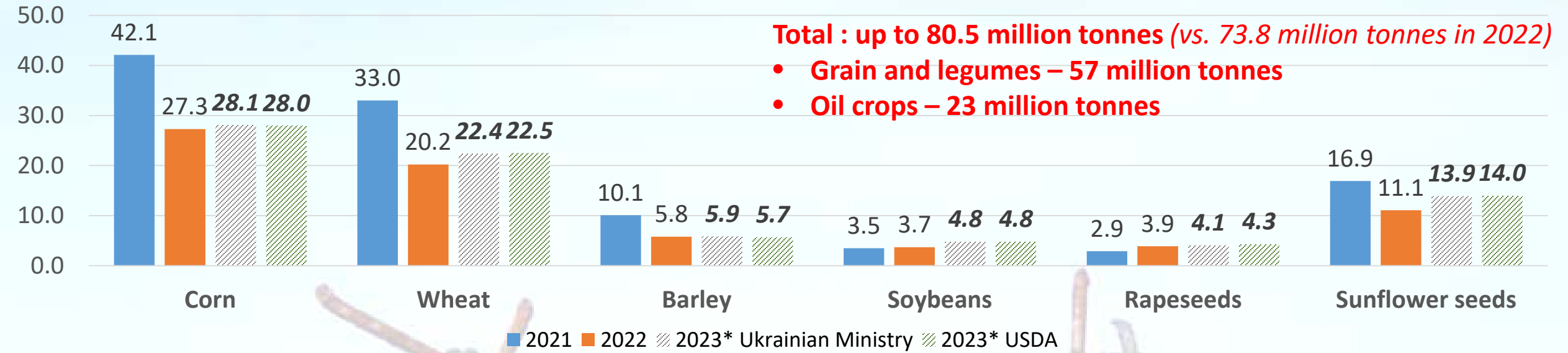
Crops	Harvested, thousand hectares		2023*		Harvested to forecast 2023*, %	Harvested 2023*, thousand metric tonnes	Average yields, metric tonnes per hectare			Change in yields per hectare,%	
	2021	2022	Forecast, thousand hectares	Harvested, thousand hectares			2021	2022	2023*	2023* to 2021	2023* to 2022
	Grain and legumes total, including:	15,299.2	10,969.7	10,569.4	7,944.1	75.2 %	38,266.5	5.50	4.88	4.82	-12.4 %
•wheat	7,073.0	4,979.4	4,646.4	4,694.5	101.1 %	22,359.2	4.64	4.05	4.76	+2.6 %	+17.5%
•barley	2,467.7	1,666.5	1,492.9	1,504.5	100.8 %	5,863.0	3.92	3.47	3.90	-0.5 %	+12.4%
•corn	5,356.0	4,045.0	4,055.2	1,376.7	33.9 %	9,281.6	8.01	6.68	6.74	-15.9 %	+0.9 %
•peas	240.4	118.1	150.0	154.4	102.9 %	396.8	2.43	2.28	2.57	+5.8 %	+12.7%
•buckwheat	84.2	115.9	141.5	136.6	96.5 %	203.6	1.30	1.37	1.49	+14.6%	+8.8 %
•millet	77.9	44.7	83.4	77.4	92.8 %	162.4	2.52	2.28	2.10	-16.7%	-7.9 %
Soybeans	1,279.5	1,537.0	1,811.0	1,641.4	90.6 %	4,240.9	2.68	2.43	2.58	-3.7 %	+6.2 %
Rapeseed	1,013.9	1,134.8	1,425.6	1,396.0	97.9 %	4,005.4	2.95	2.86	2.87	-2.7 %	+0.3 %
Sunflower	6,482.4	4,825.5	5,059.7	4,357.2	86.1 %	10,210.6	2.52	2.18	2.34	-7.1 %	+7.3 %

Note: includes data from territories under Ukrainian control as of the reporting date

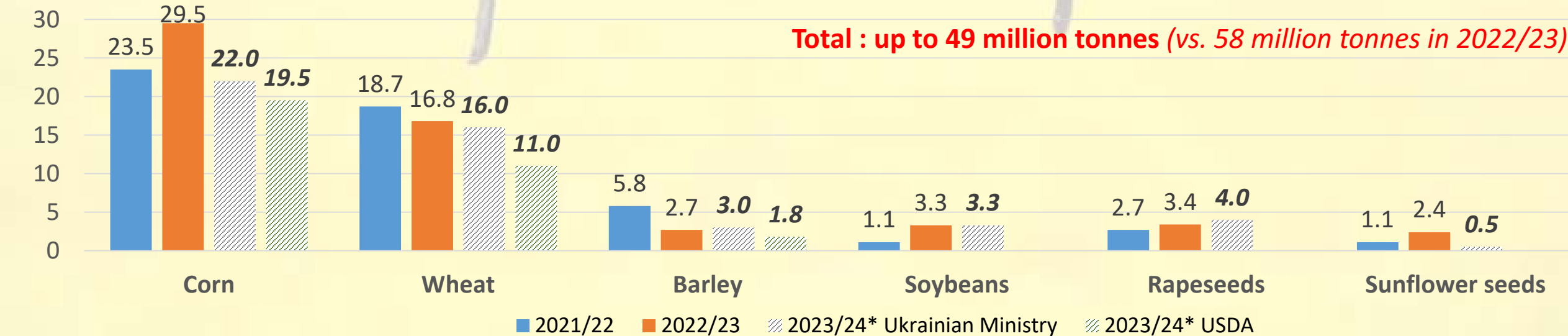


Source: based on data of the State Statistic Service of Ukraine

FORECAST OF HARVEST OF GRAIN, LEGUMES AND OIL CROPS IN UKRAINE IN 2023, million metric tonnes



FORECAST OF EXPORT POTENTIAL OF GRAIN, LEGUMES AND OIL CROPS FROM UKRAINE IN 2023/24 MY, million tonnes



SOWN AREA OF WINTER CROPS IN UKRAINE, thousand hectares

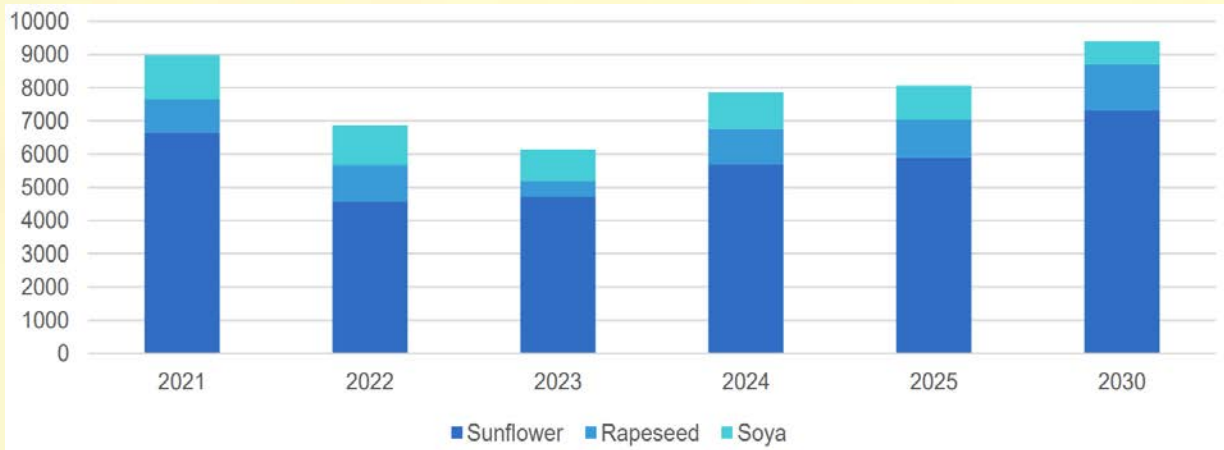
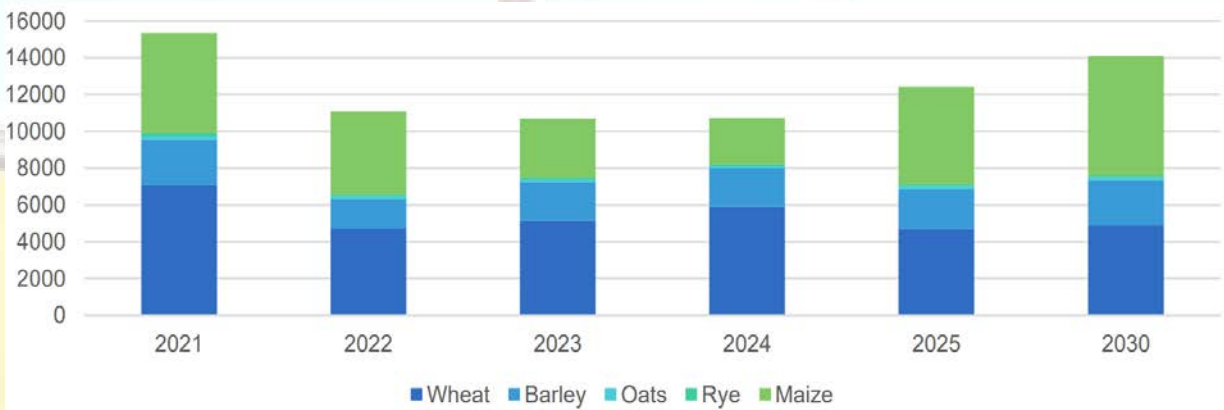
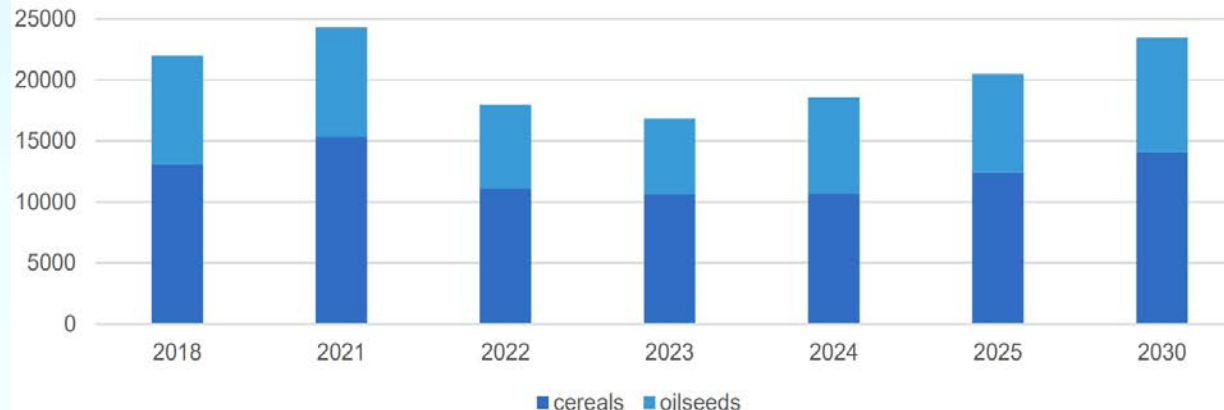
Crops	2020	2021	2022	2022 to 2021, %	Sown areas in 2023 for the 2024 harvest				
					Forecast 2023	Planted as of October 17, 2023		Forecast of 2023 to planted in	
						thousand hectares	% to forecast	2022, %	2021, %
Winter crops total, including:	8,973.5	9,029.4	5,449.4	-39.6 %	6,339.9	4,467.2	70.5 %	+ 16.3 %	-29.8 %
• winter wheat	6,714.4	6,538.4	3,758.8	-42.5 %	4,355.3	3,017.8	69.3 %	+ 15.9 %	-33.4 %
• winter barley	1,080.4	969.0	612.5	-36.8 %	692.1	260.1	37.6 %	+ 13.0 %	-28.6 %
• winter rye	166.8	108.5	79.2	-27.0 %	80.9	65.2	80.6 %	+ 2.1 %	-25.4 %
• winter rapeseeds	1,011.9	1,413.5	998.9	-29.3 %	1,211.6	1,124.2	92.8 %	+ 21.3%	-14.3 %

Note: includes data from territories under Ukrainian control as of the reporting date

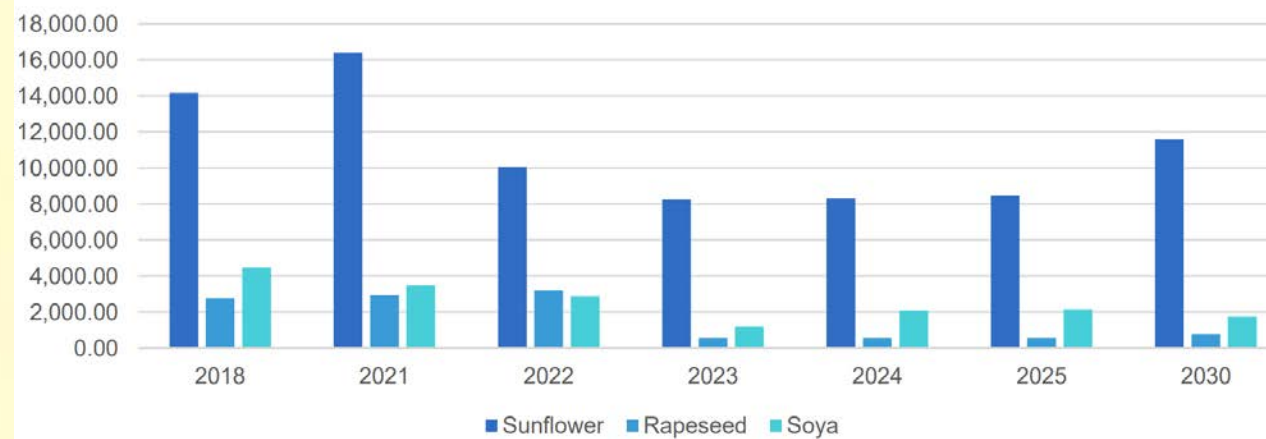


2030 UKRAINE CEREALS AND OILSEEDS MARKETS PROJECTIONS: 2023 – END OF THE WAR ASSUMPTION

Acreage of cereals and oilseeds, thousand hectares



Production of cereals and oilseeds, thousand tonnes





Thank you!

Questions?