

Russian-Ukrainian War Impact (updates)

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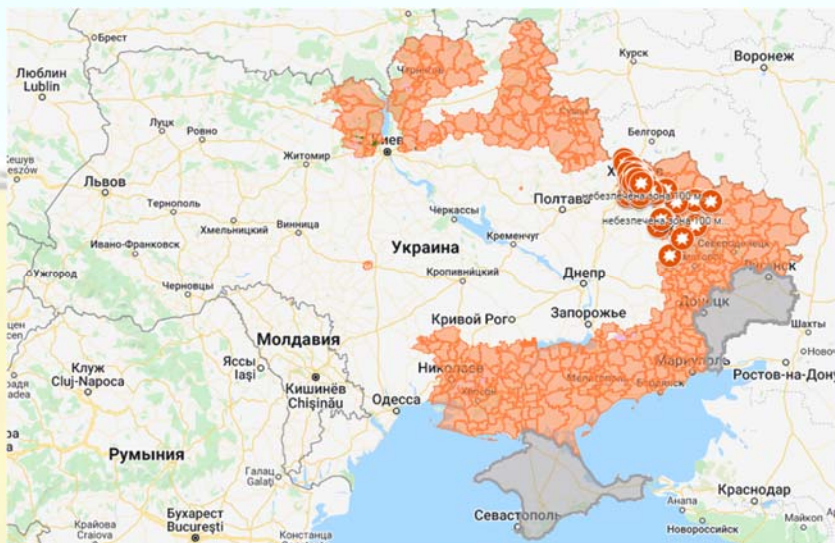
PhD in Economics, Associate Professor



As a result of hostilities in Ukraine, an area of 82 525 square kilometers (20,392,371 acres) was mined, which is 13.6% of the territory of Ukraine.

Potentially dangerous areas to be surveyed are 132 023 square kilometers (32,623,593.8 acres)

Map with places of detection of explosive objects and dangerous areas



General statistic regarding demining on the territory of Ukraine by the State Emergency Service since the war beginning as on April 26, 2022:

Surveyed areas – **78.25** square kilometers (19335 acres)

Explosive items neutralized (units) – **48511**

- including air bombs – **1950**

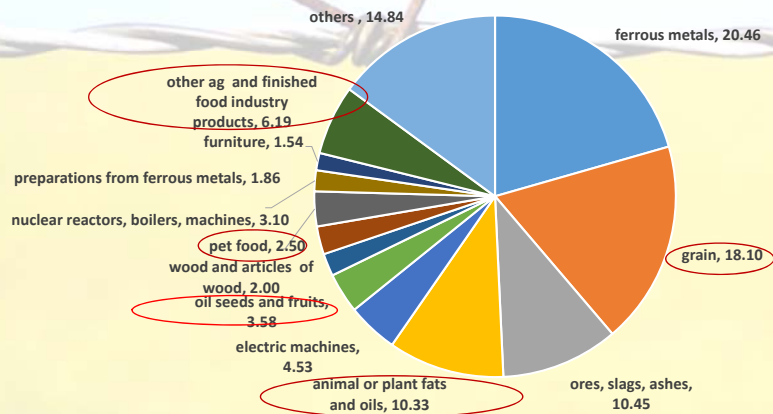
Number of involvement – **3182**

Source: The State Emergency Service of Ukraine

Ukraine's place in the world exports of agricultural commodities in MY 2020/21



Ukrainian Export, 2021, %



Results of the MY 2020/2021:

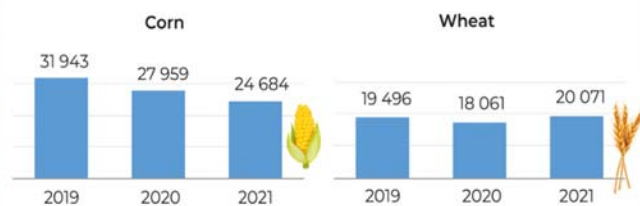
Ukrainian exports of grains and legumes and products of their processing - 44.9 million tons

in particular:

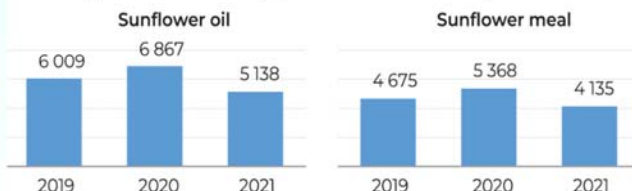
- wheat - 16.6 million tons
- barley - 4.2 million tons
- rye - 8.4 thousand tons
- corn - 23.1 million tons
- flour - 126.9 thousand tons

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

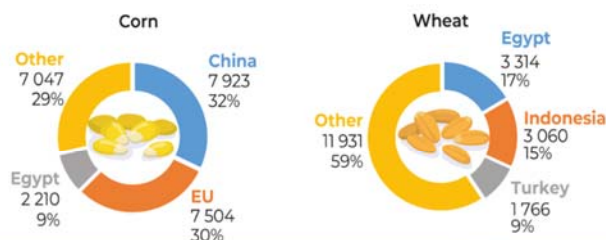
Export of major grains from Ukraine, thsd tonnes



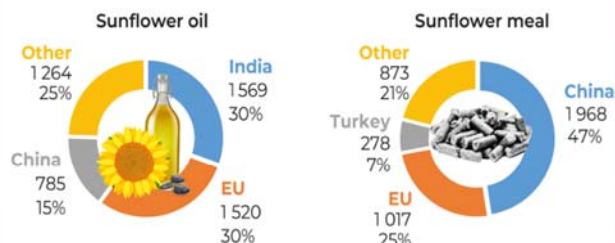
Export of sunflower by-products from Ukraine, thsd tonnes



TOP importers of Ukrainian grains in 2021, thsd tonnes



TOP importers of sunflower by-products in 2021, thsd tonnes



Capacity of train transfer through border crossing of Ukrainian Railway as of April 19, 2022

Border crossing	maximum approximate possible amount of grain cargo transfer		actual average daily transfer of grain cargo during the last month		accumulation of grain cargos in the direction of the border crossing as of April 19, wagons		line for crossing the border at the average daily transfer
	train	wagon	train	wagon	grain	oil	
To Poland							
Yagodyn	3	150	1	26	537	36	12
Izov	3	130	3	74	1096	258	17
Rava Ruska							9
Mostyska-2	2	80			20	29	8
To Romania							
Vadul-Siret	1	20	1	28	1448		22
Dyakovo-2	1	30	1	20	710		25
To Slovakia							
Chop-Chierna	2	105	1	23	41		14
Uzhhorod							21
To Hungary							
Chop-Zahon	1	30	1	31			0
Batiovo	1	20	2	39	308	55	7
To Moldova							
Sokyriany				4	31		4
Mohyliv-Podilskyi	3	116	2	40	1108	63	16
To Moldova / Romania							
Reni	1	50			55		10
Total	18	731	13	284	5254	441	x

Source: *press service of the Ukrainian Railway



Currently the railway is the main grain-bearing artery, and the western border has been the main route for grain to foreign markets.

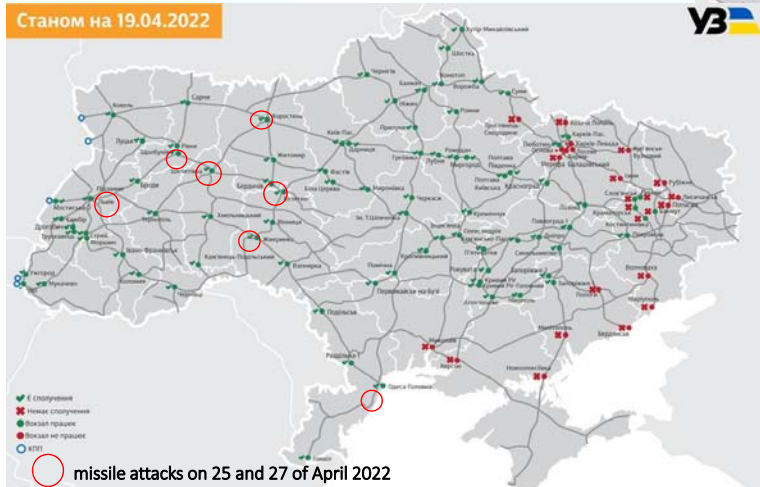
The Ukrainian Railway can transship 1 million tons of grain per month at the western border crossings. The company is working on expanding the capacity to 5 million tons. The Ukrainian Railway offers exporters to reload grain at 13 terminals

- ✓ Ukraine keeps on working on reorientation of exports to rail and road routes with the help of neighboring countries – Romania, Hungary, Slovakia and Poland to build “Grain bridge” for about 20 thousand trains

Станом на 20.03.2022



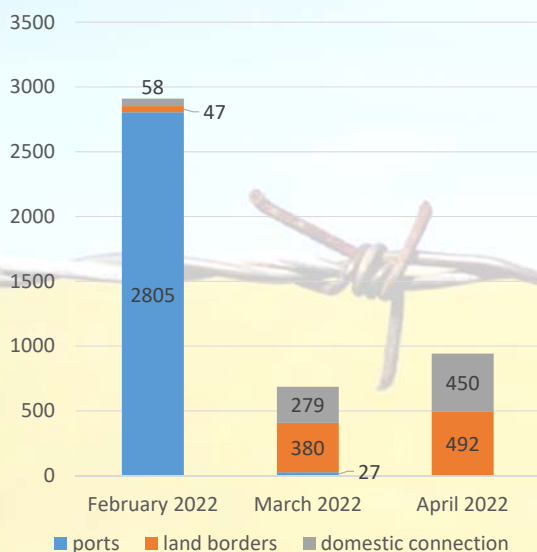
Станом на 19.04.2022



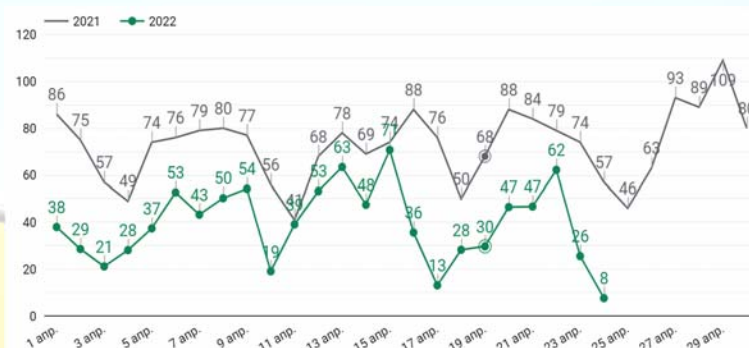
- ✓ On April 27, Lithuanian Railways sent a test freight train to Ukraine. On a test run, the train carried 2,000 tons of cargo by land to Lithuanian port.
- ✓ The German government has announced its intention to export up to 52 containers from Ukraine by each train “DB Cargo” to help deliver planned for export 20 mln tons of grain

Source: *press service of the Ukrainian Railway

Structure of grain cargo loads on the Ukrainian Railway by directions of transportation, thousands tons (as of April 25)



Daily grain cargo loads of Ukrainian Railway in April 2022



Tariffs for transportation by rail in Ukraine in January-March, 2022 :

- ↑ 15% for grain
- ↑ 41.7% for chemical and mineral fertilizers

Source: *press service of the Ukrainian Railway

Volume of cargo turnover of Ukrainian sea ports in 2021 :

- Pivdennyi 53.5 mln tons
- Mykolayiv 29.8 mln tons
- Chernomorsk 25.6 mln tons
- Odesa 22.5 mln tons
- Mariupol 6.8 mln tons - **destroyed**
- Olvia 5.1 mln tons
- Berdyansk 1.6 mln tons - **occupied**
- Kherson 0.5 mln tons - **occupied**
- Belgorod-Dniester 0.0024 mln tons
- Skadovsk 0.002 mln tons - **occupied**

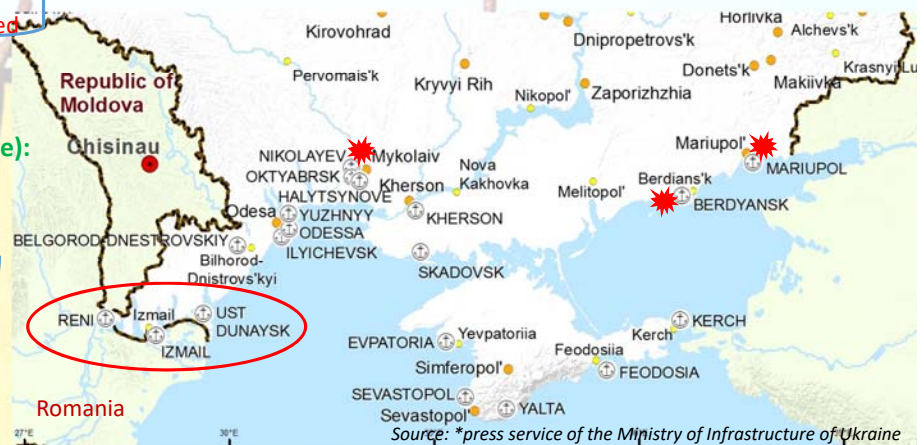
current potential freight turnover
by road and rail
19 mln tones

- ✓ Up to 100 Ukrainian food merchant ships remain blocked by Russian troops in Ukrainian ports

The port of the Dunay river (Danube):

- Izmail 3.9 mln tones
- Reni 1.4 mln tones
- Ust-Danubsky 0.006 mln tones

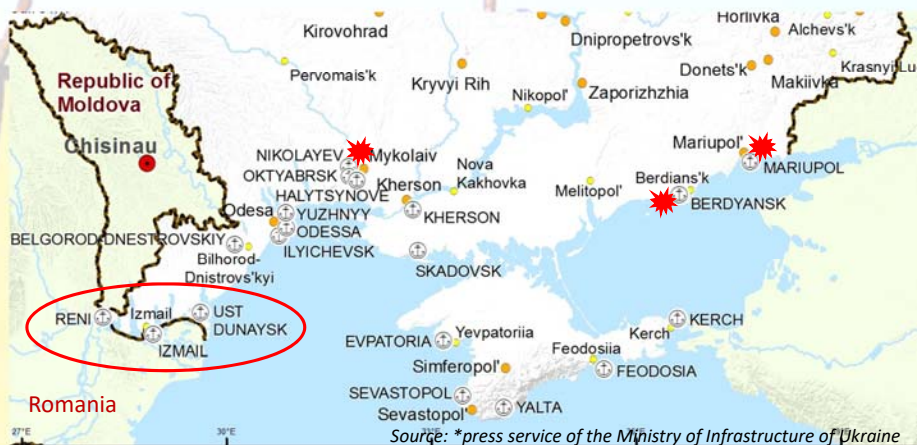
potential cargo through three
unblocked river ports
6-7 mln tones



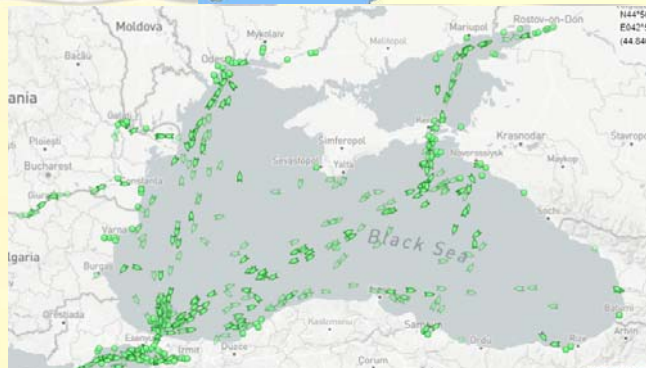
- ✓ Ukraine has sent around 80,000 tones of grains to the Romanian Black Sea port of Constanta so far. The first panamax vessel with 71,000 tones of Ukrainian corn left the Romanian Black Sea port of Constanta.
- ✓ Latvia is going to help Ukraine with grain exports through Latvian ports.
- ✓ Under the most optimistic scenario, shipping in the Black Sea can be partially resumed in autumn if a number of conditions is achieved, such as ceasefire, safety for shipments and demining of waters
- ✓ The European Commission has proposed to suspend for a year import duties on all Ukrainian exports to the European Union.

During martial law, the Cabinet of Ministers of Ukraine:

- ✓ abolished additional seed certification procedures,
- ✓ simplified the labeling of imported food and feed,
- ✓ removed bureaucratic barriers to the export and licensing of permitted groups of goods (corn, sunflower oil, etc.),
- ✓ simplified registration of agricultural machinery and equipment,
- ✓ has made a number of decisions that facilitate the access of agricultural producers, in particular, to fuel, pesticides and agrochemicals.



- ✓ The Turkish government, in accordance with the international Montreux Convention on the Status of the Straits, has blocked the passage of Russian military ships through two strategically important straits between the Mediterranean and Black Seas, the Bosphorus and the Dardanelles.
- ✓ Ukraine asks Turkey and the international community to completely block the movement of all Russian ships through these straits.
- ✓ The fifth package of EU sanctions contains a rule that since April 18, 2022 entry into sea and river ports is prohibited for all ships registered under the Russian flag. According to the European Commission, 2873 merchant ships with the Russian flag are currently operating, all of them will fall under sanctions.
- ✓ The United States has announced a ban on Russian-linked ships from entering American ports.



As of April 26, 2022 the direct losses of Ukrainian economy from the Russian invasion reach **\$ 88 billion**, total direct, indirect and one-time losses **\$ 565 billion** (falling GDP, cessation of investment, outflow of labor, additional spending on defense and social support):

- \$ 119 billion falls on infrastructure (that is \$ 4.25 billion daily),
- \$ 91 billion - on the loss of civilian objects,
- \$ 54 billion in capital investment has not been received.

Infrastructure facilities	Volume, Pieces / km	Total losses, \$ mln
Roads, kilometers	23 574.00	29,480
Residential buildings, thousands of square meters	32 182.81	28,315
Assets of enterprises, units	173	9,792
Civilian airports, units	11	6,817
Railway infrastructure and rolling stock	н/д	3,557
Bridges and overpasses	289	1,622
Health care facilities	231	1,803
Secondary and higher education institutions	866	1,128
Land fund, hectares	4224 (10438 acres)	873
Ports and port infrastructure	2	622
Military aerodromes	11	429
Administration buildings	75	410
Kindergartens	535	416
Religious buildings	95	325
Aircraft An-225-Mria	1	300
Shopping malls	16	272
Cultural facilities	130	226
Warehousing infrastructure	138	225
Others	-	1,343

The Ukrainian economy is losing about \$ 170 million every day due to the port blockade.

Source: *the Ministry of Economy of Ukraine

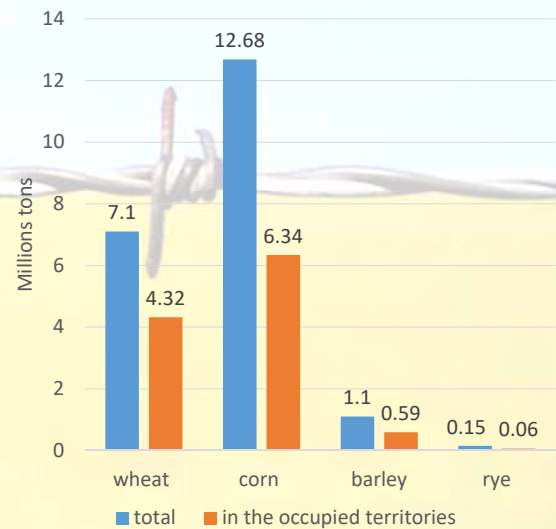
Assessment of formation of grain losses and ending stocks in Ukraine, mln tonnes



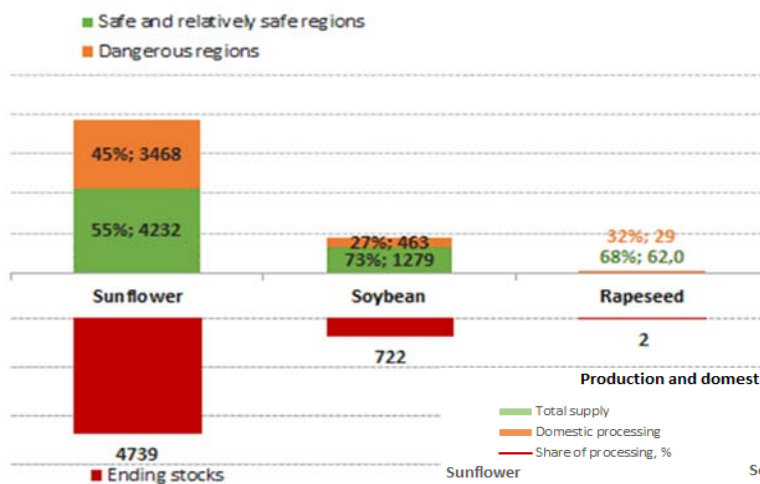
Source: APK-Inform

Analysis of the elevators shows that about 39% of storage facilities are located in dangerous and relatively safe regions, and 16% are in the most dangerous oblasts

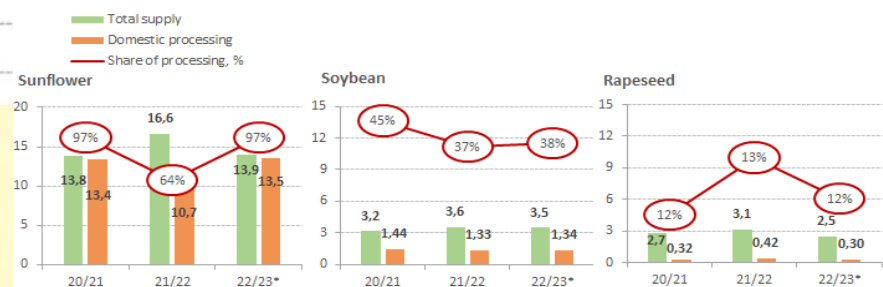
According to estimates, as of March 1, 2022, 28.6 million tons of grain remained in warehouses, of which 12.51 million tons - in regions with active hostilities



Stocks of oilseeds as of March 1, 2022 and expected ending stocks in Ukraine, thsd tonnes



Production and domestic processing of major oilseeds in Ukraine, mln tonnes

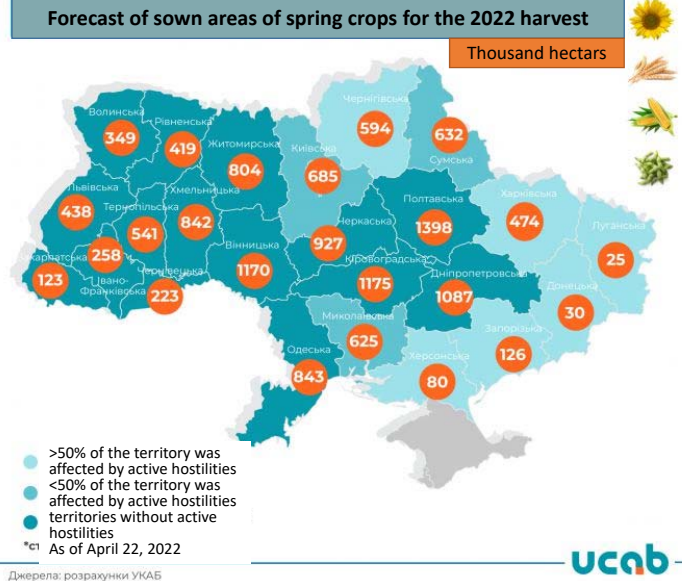


As of April 22, Ukraine planted spring crops throughout the areas of **3.026 mln ha (7.477 acres)** or 17.9% of the previous forecast, including **1.541 thsd ha (3.807 thsd acres)** planted with spring grains (20.7%), in particular:

- spring wheat throughout 164.4 thsd ha (85.6%)
- spring barley – 802.2 thsd ha (60%)
- oats – 127.4 thsd ha (71.6%)
- peas – 107.2 thsd ha (44.3%)
- corn – 323.3 thsd ha (5.9%)
- buckwheat – 1 thsd ha (1.2%)
- millet – 4.8 thsd ha (6.1%)
- sunflower seed – 896 thsd ha (13.8%)
- soybeans – 62 thsd ha (4.8%)
- spring rapeseed – 16.4 thsd ha (49.4%)
- sugar beet 55.6 thsd ha (69.2%).

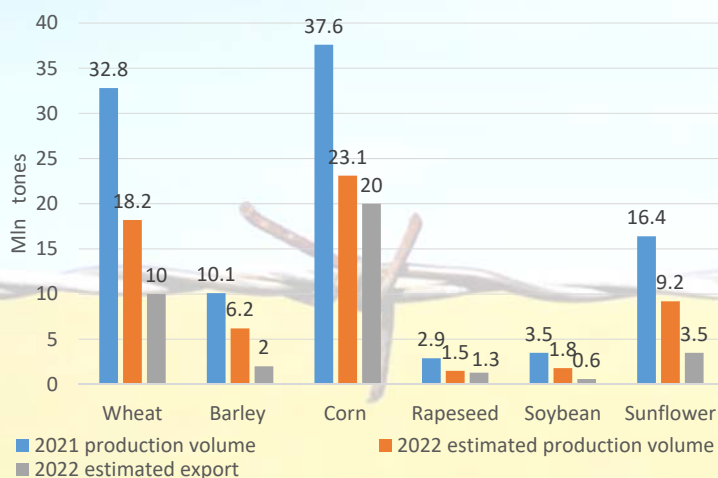
About **14.4 million hectares** of spring crops could be sown in 2022 (or 85% of the total sown area in 2021):

spring barley sown area this year may be **906 thsd ha** (-32% of the total area in 2021),
corn may be **3.8 mln ha** (-31%),
sunflower may be **4.7 mln ha** (-28%),
soybean may be **1.4 mln ha** (+12%).



Source: *the Ministry of Agrarian Policy and Food of Ukraine

Estimated harvest in Ukraine and its export in 2022/2023 MY



Ukraine export in 2021/2022 MY
(July 1, 2021 - April 27, 2022)

Commodity	2021/2022 MY	April , 2022
Grains and pulses, total	45.709 mln tones	763 thsd tones
including:		
•wheat	18.514 mln tones	115 thsd tones
•barley	5.668 mln tones	25 thsd tones
•rye	161.9 thsd tones	no exports
•corn	21.064 mln tones	622 thsd tones
Flour	69.4 thsd tones	0.5 thsd tones
•including wheat flour	67.9 thsd tones	0.5 thsd tones

In the grain-dependent countries of Ukraine and Russia, food inflation and reduced access to food are recorded. Wheat supply from Ukraine is more than 10% of annual wheat consumption for 15 countries. In particular:

- 28% of Indonesia's needs,
- 21% - Bangladesh,
- Egypt imports almost 80% of its wheat from Russia and Ukraine.

Source: *the Ministry of Agrarian Policy and Food of Ukraine

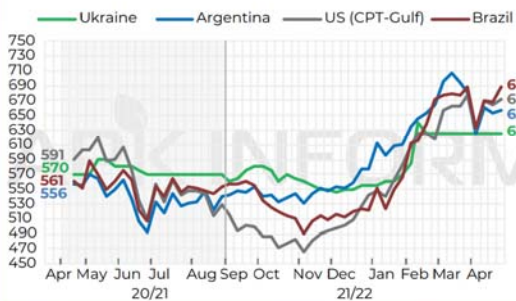
Price dynamics of milling wheat (offer, FOB), USD/t



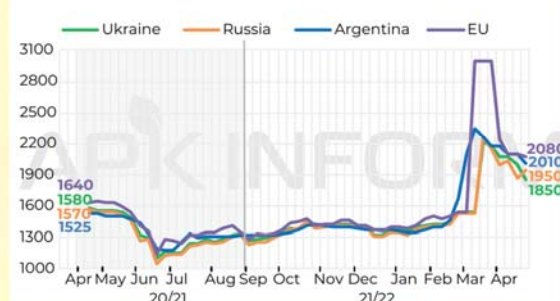
Price dynamics of feed wheat (offer, FOB), USD/t



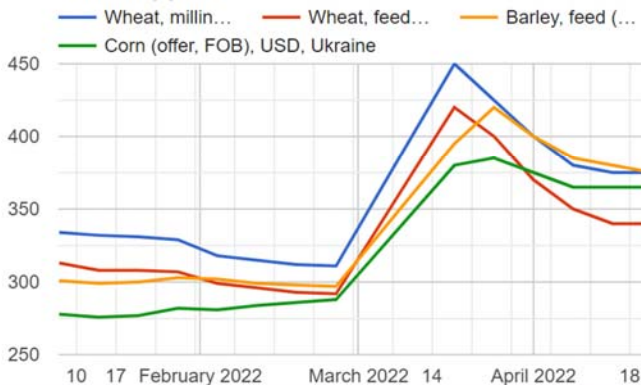
Price dynamics of soybeans (offer, FOB), USD/t



Price dynamics of sunflower oil (offer, FOB), USD/t



Commodity prices



- ✓ As of April 27, **wheat** with deliveries in May was offered at the level of **\$ 300** per ton on the basis of DAP-port of Moldova.
- On the basis of the DAP-port of Constanta (Romania), about **\$ 340** per ton.
- ✓ On **barley** on the basis of the DAP-port of Moldova, the price was set at **\$ 250**.

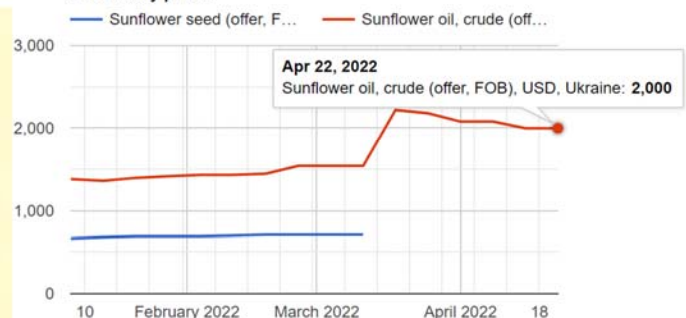
- ✓ **Corn** was traded in the following areas (with deliveries in May) :

- on the basis of DAP-ports of Ukraine - **\$ 230-245** per ton;
- on the basis of DAP-border Poland - **\$ 240-245** per ton;
- on the basis of DAP-port of Constanta, Romania - **€275** per ton;
- on the basis of DAP-border Hungary - **€230** per ton;
- on the basis of DAP-port of Moldova - **\$ 250** per ton.

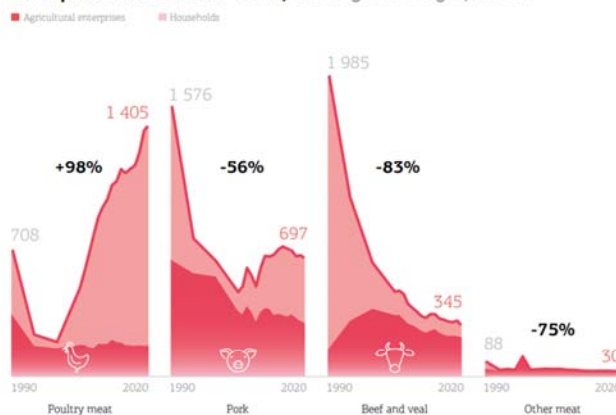
- ✓ **Sunflower** traded at **\$ 750-760** per ton on the basis of SIF ports (Silistra / Ruse) south of the Danube.

- On the basis of DAP-Romania at **\$ 710-730** per ton.
- In the direction of Hungary at **\$ 730-770** per ton

Commodity prices



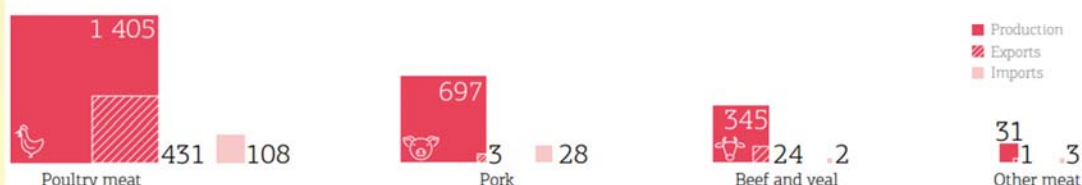
Meat production in 1990–2020, in slaughter weight, thou. t



Structure of meat production in 1990 and 2020, %



Production, exports and imports of meat by kinds in 2020, thou. t



Cattle number as of 01 February, 2022 (thsd. heads)

Number of agricultural animals in Ukraine as of 01 February, 2022 (thsd. heads)

	All agricultural holdings			Enterprises			Households		
	2022	2021	2022 % to 2021	2022	2021	2022 % to 2021	2022	2021	2022 % to 2021
Cattle	2704.3	2891.9	93.5	1004.6	1009.5	99.5	1699.7	1882.4	90.3
including cows	1552.7	1662.1	93.4	423.7	422.8	100.2	1129.0	1239.3	91.1
Pigs	5558.6	5752.7	96.6	3635.7	3673.0	99.0	1922.9	2079.7	92.5
Sheep and goats	1088.6	1125.6	96.7	165.0	152.8	108.0	923.6	972.8	94.9
Poultry	193940.4	192502.5	100.7	110946.8	107788.0	102.9	82993.6	84714.5	98.0

Regions	All agricultural holdings		
	2022	2021	2022 % to 2021
Ukraine	2704.3	2891.9	93.5
Vinnitsya	194.2	209.6	92.7
Volyn	117.2	121.3	96.6
Dnipropetrovsk	88.1	113.8	77.4
Donetsk	46.2	50.7	91.1
Zhytomyr	151.4	166.1	91.1
Zakarpattia	119.8	125.2	95.7
Zaporizhzhya	54.1	69.1	78.3
Ivano-Frankivsk	115.9	125.3	92.5
Kyiv	107.4	110.9	96.8
Kirovohrad	70.6	75.2	93.9
Luhansk	34.0	39.2	86.7
Lviv	131.4	150.2	87.5
Mikolayiv	71.2	78.6	90.6
Odesa	135.7	137.0	99.1
Poltava	188.7	193.8	97.4
Rivne	88.5	91.3	96.9
Sumy	105.3	114.5	92.0
Ternopil	130.2	134.1	97.1
Kharkiv	134.0	133.4	100.4
Kherson	57.8	67.0	86.3
Khmelnyskiy	224.2	221.0	101.4
Cherkasy	131.1	138.1	94.9
Chernivtsi	70.8	74.8	94.7
Chernihiv	136.5	151.7	90.0

Production of animal products in Ukraine

	All agricultural holdings			Enterprises			Households		
	2021	2020	2021 % to 2020	2021	2020	2021 % to 2020	2021	2020	2021 % to 2020
Live weight of agricultural animals sold for slaughter, thsd. tonnes	3393.7	3462.3	98.0	2318.3	2303.0	100.7	1075.4	1159.3	92.8
Production (gross yield) of milk, thsd. tonnes	8728.8	9263.6	94.2	2767.4	2761.2	100.2	5961.4	6502.4	91.7
Number of eggs obtained from poultry, mln. pieces	14071.3	16167.2	87.0	7012.8	8913.5	78.7	7058.5	7253.7	97.3
Production of wool (gross shearing), tonnes	1497	1574	95.1	152	147	103.4	1345	1427	94.3

The growth rate of the world economy in 2022
(% to previous year)

	<i>Forecast at the beginning of the year</i>	<i>Current forecast (April 2022)</i>
Global economy	4.0	3.5
Developed countries	3.4	2.9
Developing countries	4.7	4.2
Central and Eastern European countries (including Russia)	3.1	-0.8
Czech Republic	3.7	1.9
Hungary	5.4	2.9
Poland	5.1	3.1

According to the base version of the forecast of the *Ministry of Economic Development of Russia* as of April 27, the decline of Russia's economy in 2022 will be 8.8%, according to the conservative - 12.4%.

Inflation in Russia in 2022, according to the basic forecast, will be 20.7% and next year will also be considerable - more than 6%.

Questions?

