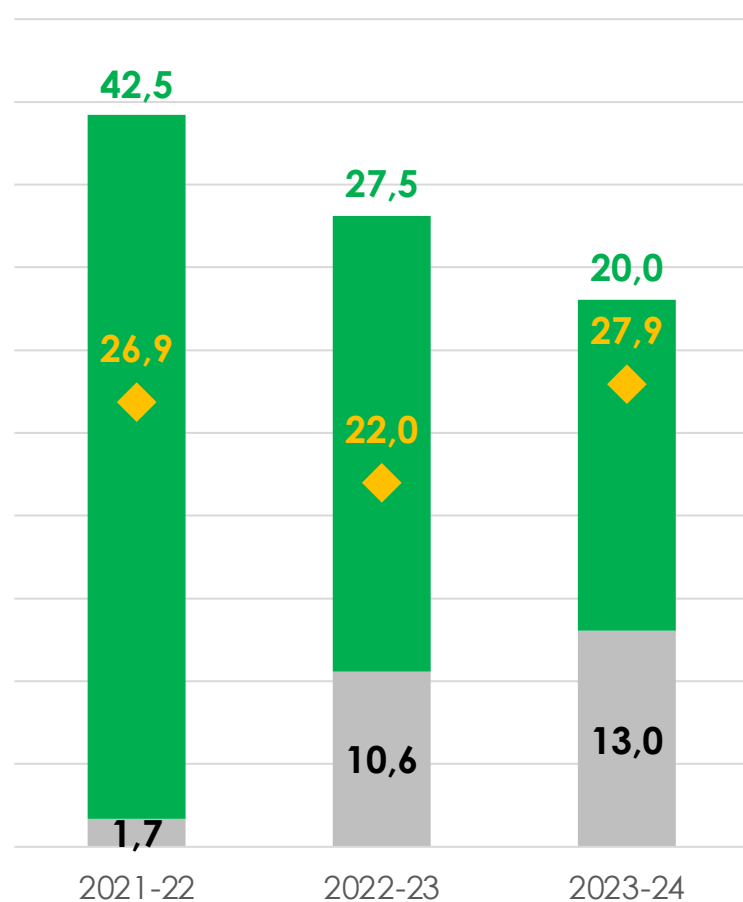


# Ukraine's Grain Production and Shipments almost back to Normal despite Continuous Risks

## Competitor Subsidies and Insurance may cause Market Share Losses

## Ukrainian corn Supply and Exports (mln t)

■ Stocks ■ Production ♦ Exports



Ukraine continues to harvest corn of 2022 crop, which is unusual for normal seasons. Currently, 22.1 mln t have been harvested. But 0.8 mln ha are still in the fields, which is 19% of the total planted corn reported by the Ministry of Agriculture of Ukraine. Potentially, this is extra 7.0 mln t, which are in the fields. But despite the best efforts of the farmers, soon the weather should make it impossible to carry out field work and part of this corn will wait until spring. This threatens with a decrease in yield, increase in diseases, which will make such corn unsuitable for export. Given current yield Ukraine will harvest up to 29.1 mln t of corn, but due to weather conditions in winter, production may be several million tonnes less.

This situation also means that in the spring, despite the seasonality, Ukraine will have an increased export surplus, which global importers can take advantage of at satisfactory quality levels. In the summer, the Brazilian safrinha-corn harvest will also kick in. This means that food security and world market prices for the next six months look better for consumers.

The risks come with the next harvest in Ukraine. Planting will take place in the spring of 2023, but after the export slump and the inspection problems in the present season, many farmers intend to significantly reduce the area under grains, including wheat and corn. Meanwhile, the profitability of grain crops looks significantly lower than that of oil crops (which are increasingly crushed domestically).

Considering the for grains, fact that Ukraine presently does not control a significant part of the territory, as well as unfavourable economics, spring planting of corn may decrease from 5.5 mln ha in 2021 and 4.2 mln ha in 2022 to 3.0 mln ha in 2023. With normal yield, this is 20.0 mln t of corn; if farmers will save money on inputs in order to stay profitable, even less.

Only thanks to the fact that this season Ukraine will underscore in exports of about 10-12 mln t of corn (slow inspections), in the next season Ukraine can offer the world 27.9 mln t, (+8 mln t higher than crop-23). African countries will be able to purchase all the necessary volumes without significant competition. But the actual volumes will depend on the situation with respect to inspections.

Crop 2022	Wheat	Barley	Corn	Soybeans	Rapeseed	Sunseed	Total
Forecast before invasion	28.3	8.2	38.2	3.0	3.4	15.3	96.4
Actual estimate	20.2	5.8	27.5	3.7	3.2	11.1	71.6
Difference (%)	-29%	-30%	-28%	24%	-5%	-27%	-26%

According to the results of the 2022 harvest, Ukraine can harvest 71.6 mln t of grain and oilseed crops. This is a quarter less than the forecast before the war, which was based on multi-year yield trend and the crop area controlled by Ukraine until February 24, 2022.

It is important to note that part of the crop (wheat and 40% of barley) was planted in the fall of 2021 (before the invasion) and harvested in the summer of 2022, when Ukraine did not control key production regions in the South and the East of the country.

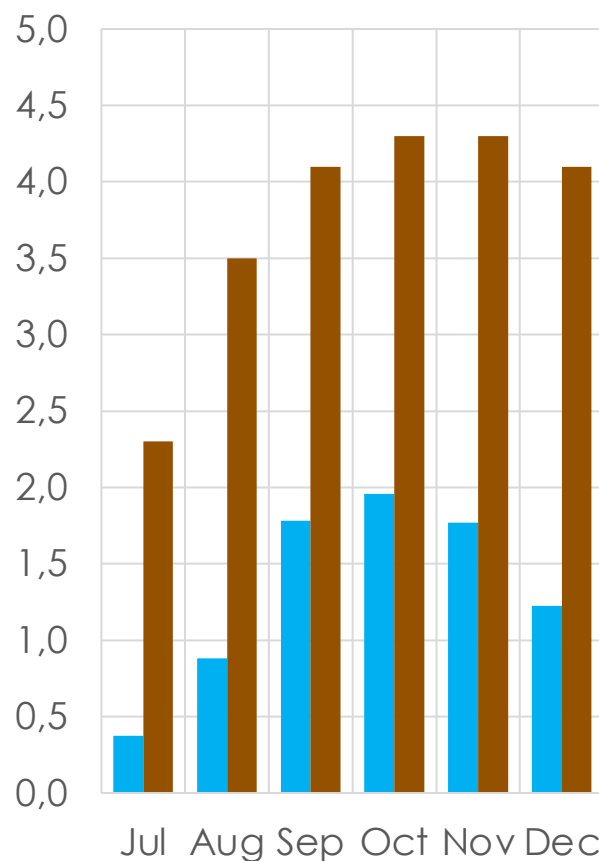
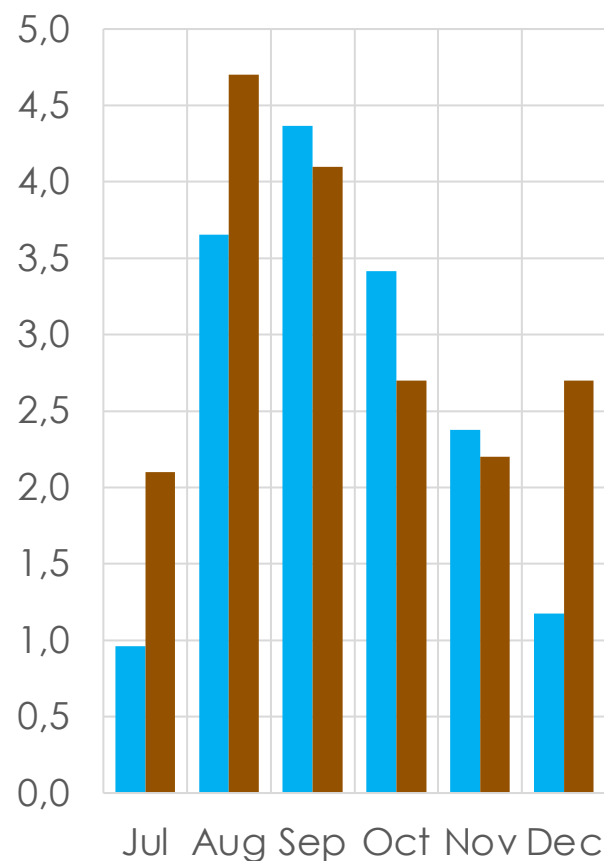
## Exports of wheat (Jul-Dec)

2021

2022

■ Ukraine ■ Russia

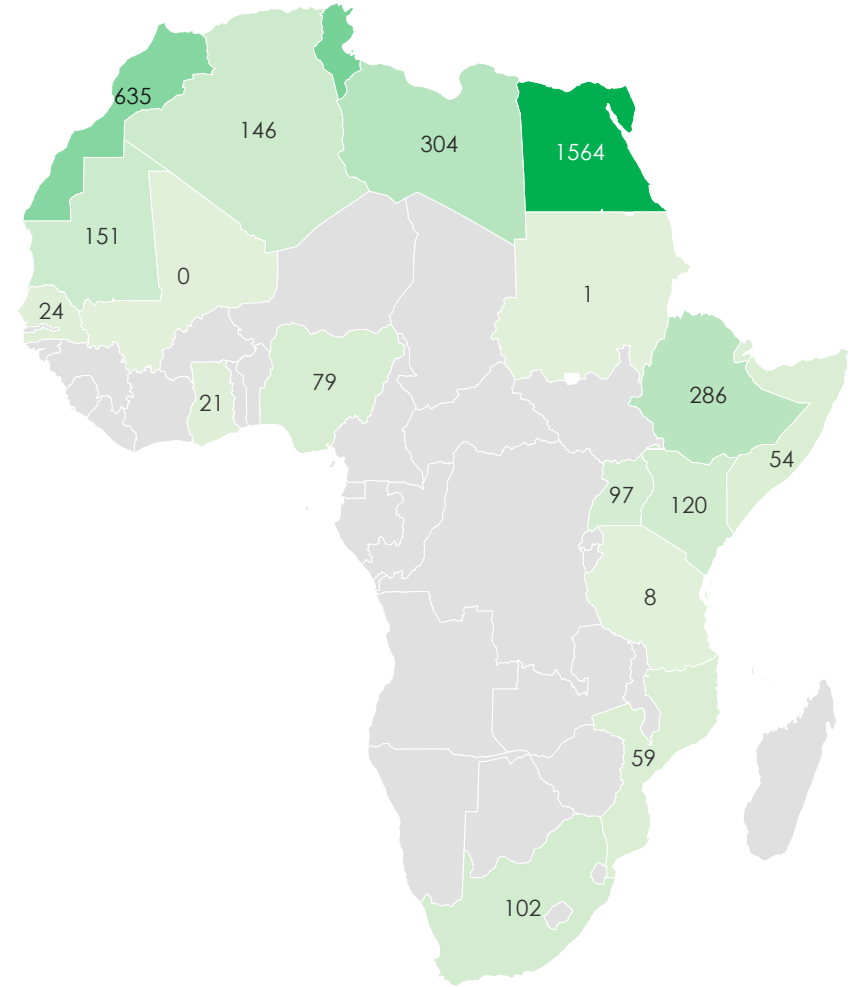
■ Ukraine ■ Russia



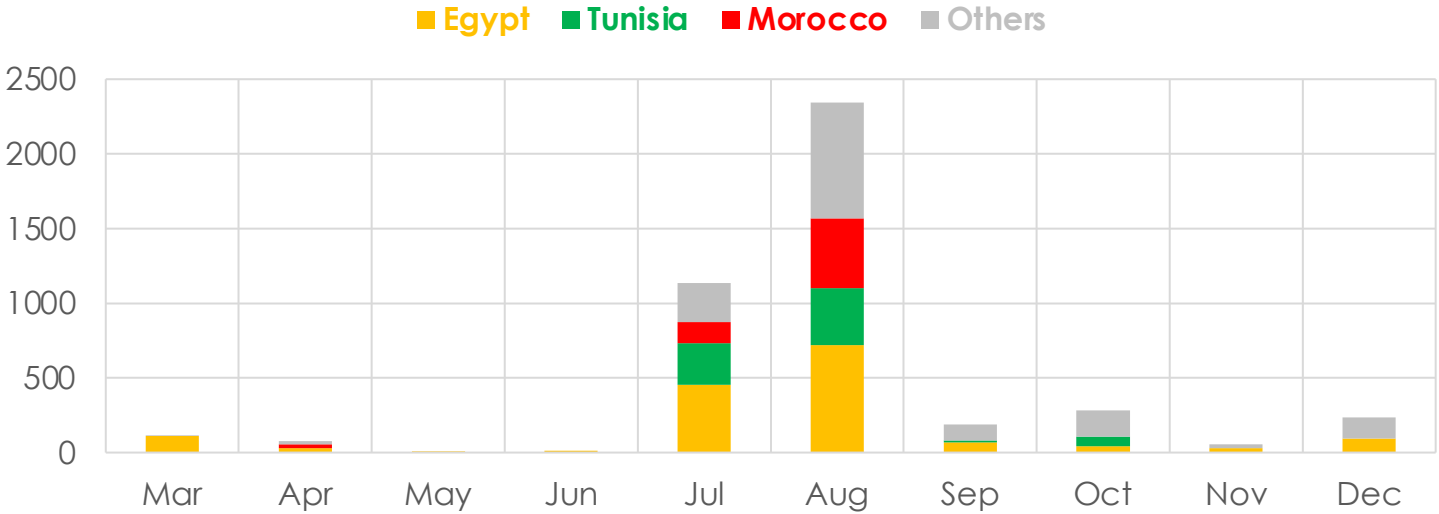
In the current year, all major African wheat importers have seen a drop in the share of supplies from Ukraine. Russian supplies, on the contrary, considerably increased. This is explained by several consequences caused by the Russian invasion:

- The peak period for Ukrainian wheat exports is July-November. Traditionally, during this period, Ukraine ships 60-70% of annual exports.
- Until the end of July, Ukrainian seaports were blocked, so there were no substantial deliveries until then, and this also affected purchases for the following months.
- Inspections in the Bosphorus remain a logistic bottleneck. Russia initiated inspections and uses them to deliberately slow down the pace of Ukrainian grain exports. Instead of deliveries of Ukrainian grain within a few weeks, charterers have to queue (and budget corresponding vessel demurrage) in Bosphorus.
- In October, market participants began to worry about the continuation of the Grain Initiative, which led to weaker purchases and a drop in Ukraine's export performance in November.
- After the continuation of the Grain Initiative, Ukraine again has a problem with stretched period of grain supply (due to inspections). As a result, many importers turn to other suppliers including Russia.

Exports of Ukrainian wheat to Africa Mar-Dec 2022 (kt)



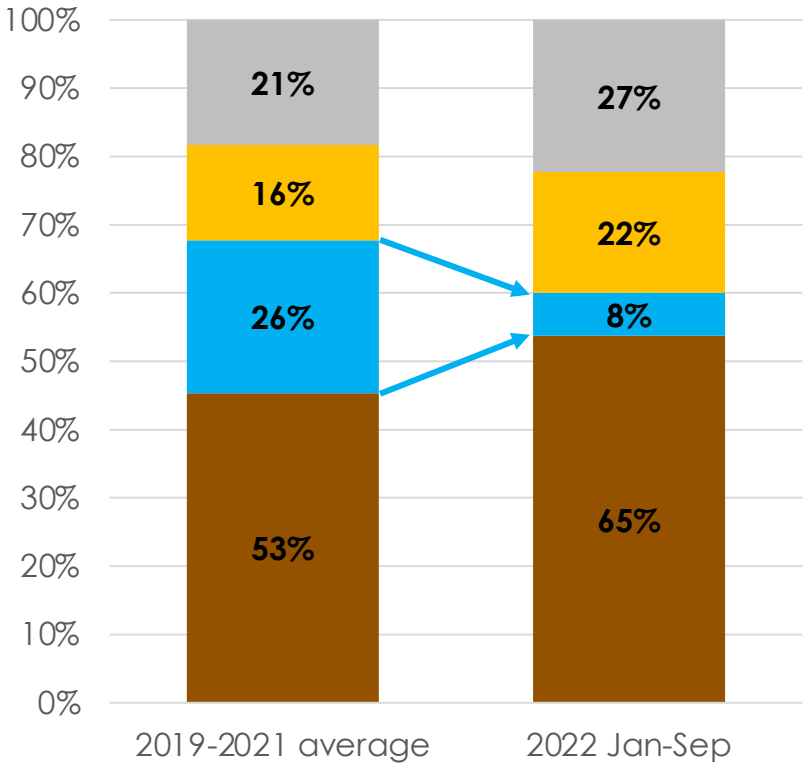
Monthly exports of Ukrainian wheat to Africa (kt)



Export data shows that even traditional African importers of Ukrainian wheat reduce purchases from Ukraine due to increased risks and costs. In addition to earlier mentioned reasons (which in themselves greatly reduce the attractiveness of purchases in Ukraine), it is also worth remembering that many commercial buyers in Africa buy what is called “hand-to-mouth”. This means buying in small lots that cover a few weeks' worth of needs. Since Ukraine cannot deliver grain in such a short period due to the Russian Bosphorus inspections, this forces importers to look towards other origins, even if wheat will be more expensive.

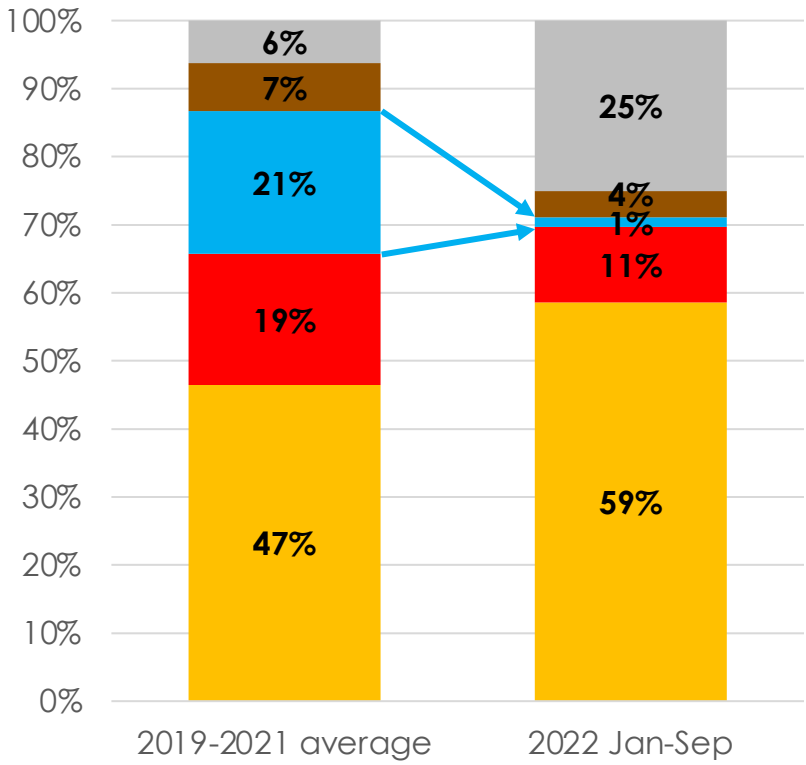
Egypt wheat import by origins, %

Russia Ukraine EU Others



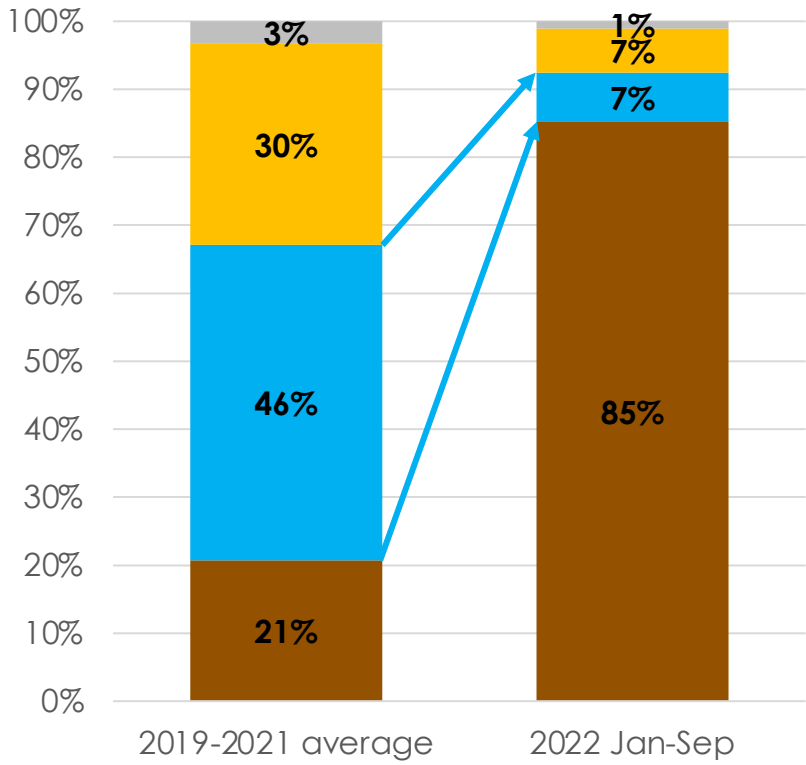
Morocco wheat import by origins, %

EU Canada Ukraine Russia Others



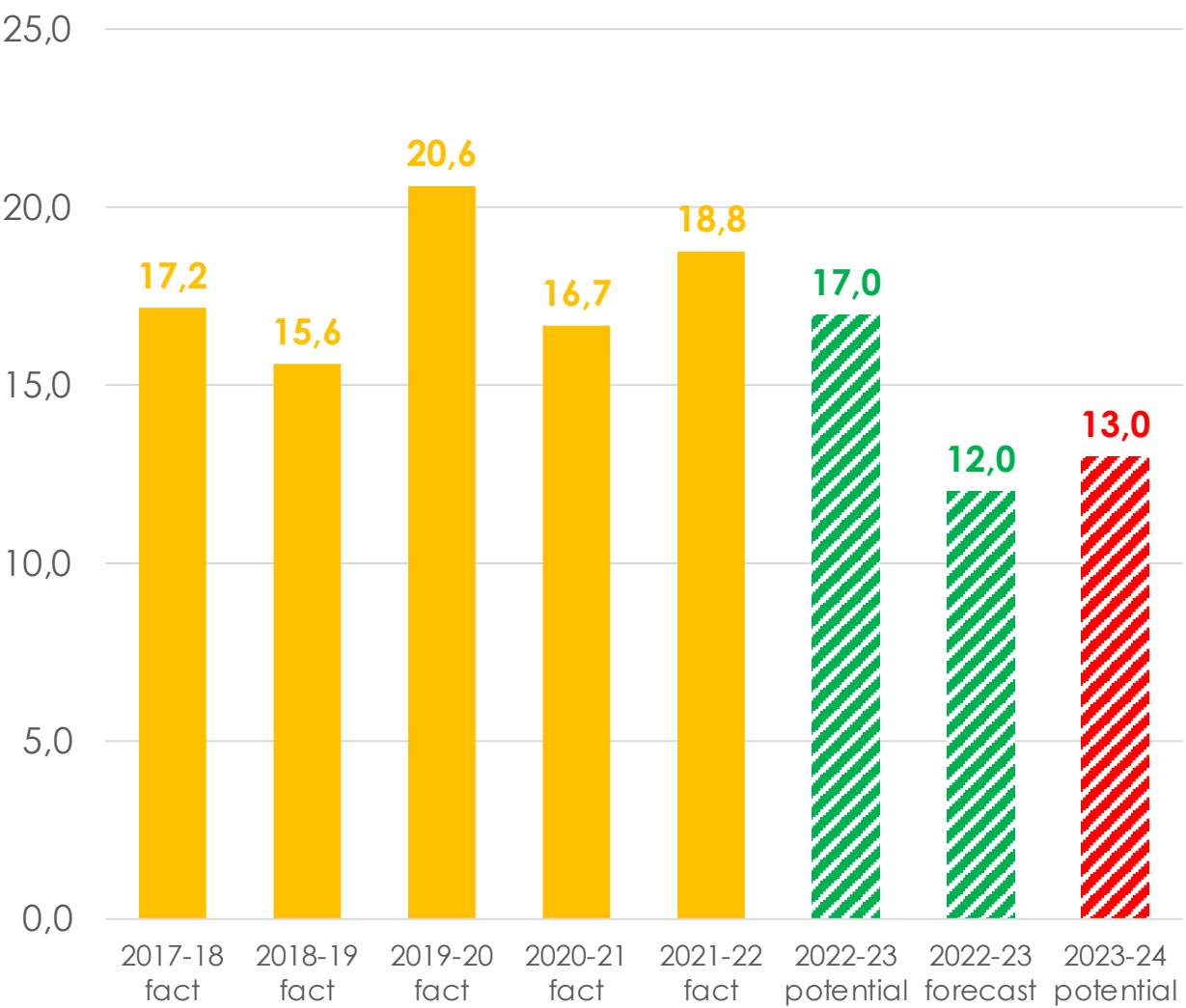
Libya wheat import by origins, %

Russia Ukraine EU Others



Egypt and Libya significantly increased supplies of Russian wheat not only to replace supplies from Ukraine, but also other origins. Unlike previous seasons, in 2022, the Egyptian government rarely hold traditional GASC public tenders, instead directly purchased grain from Russia. Morocco, on the contrary, reduced the volume of supplies from Russia and diversified its supplies. EU significantly increased its exports in 2022. From July to October, the export of EU wheat to Egypt amounted to 1.4 mln t vs 0.7, 0.06, and 1.3 mln t in 2019-2021. Over the past 3 years (Jul-Oct), the best exports of EU wheat to Morocco was 430 kt, in 2022 it is 1.6 mln t.

### Exports of Ukrainian wheat (mln t)

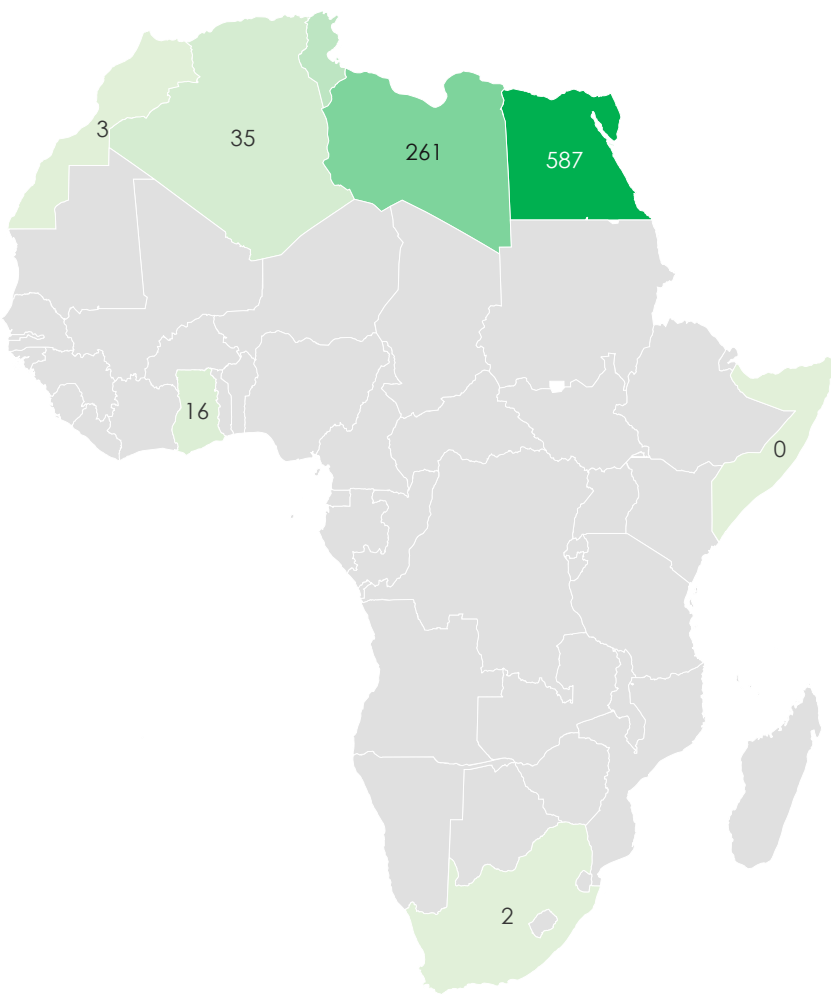


Due to the inability to export under normal market conditions, Ukraine has more wheat at the beginning of January 2023 than at any time in history. For importers, this is a certain security cushion, because it means that as long as the Grain Initiative exists, Ukraine will always have a supply, albeit limited the bottleneck of logistics. However, if the situation with inspections does not change, it seems that the demand from African countries for Ukrainian wheat will not increase until the end of the season (June 2023). Importers in North Africa harvest their own crops 1-2 months earlier than exporters in the rest of the Northern Hemisphere. So, in the absence of significant global weather events that could increase food security risks, importers could significantly slow the pace of wheat purchases. If we take into account the current logistical challenges and the new purchasing practices of several African countries, by the end of the season (June) they might buy about 200-500 kt of Ukrainian wheat. If the inspection situation improves, or shortcoming concerns about the harvests in the Northern Hemisphere, the figure could rise to 800 kt, but it is unlikely to be higher.

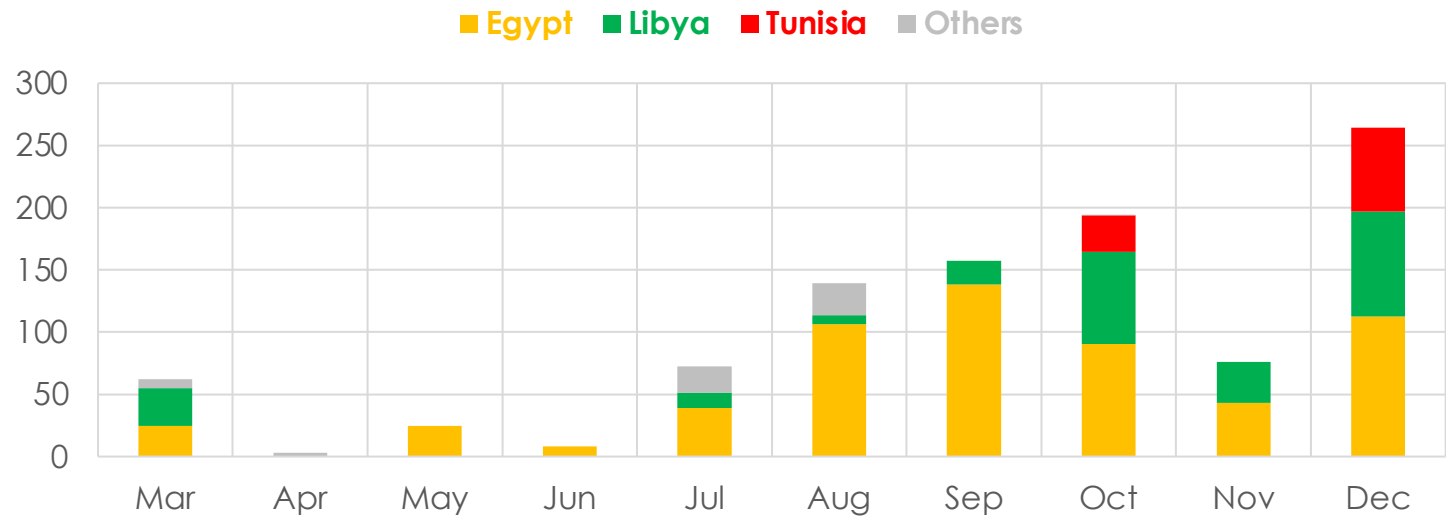
Ukraine's harvest in 2023 may amount to 13.0-15.5 mln t (28.3-32.5 mln t in the past 3 seasons). However, taking into account the large reserves that Ukraine will not be able to sell during the current season, next year the export potential may amount to 13 mln t.



Exports of Ukrainian corn to Africa Mar-Dec 2022 (kt)



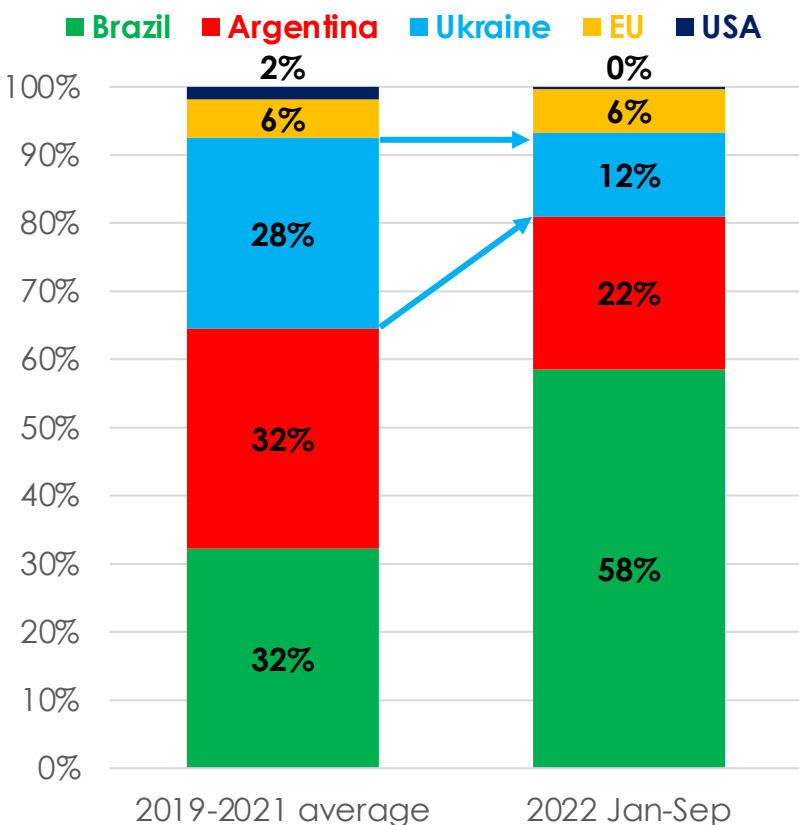
Monthly exports of Ukrainian corn to Africa (kt)



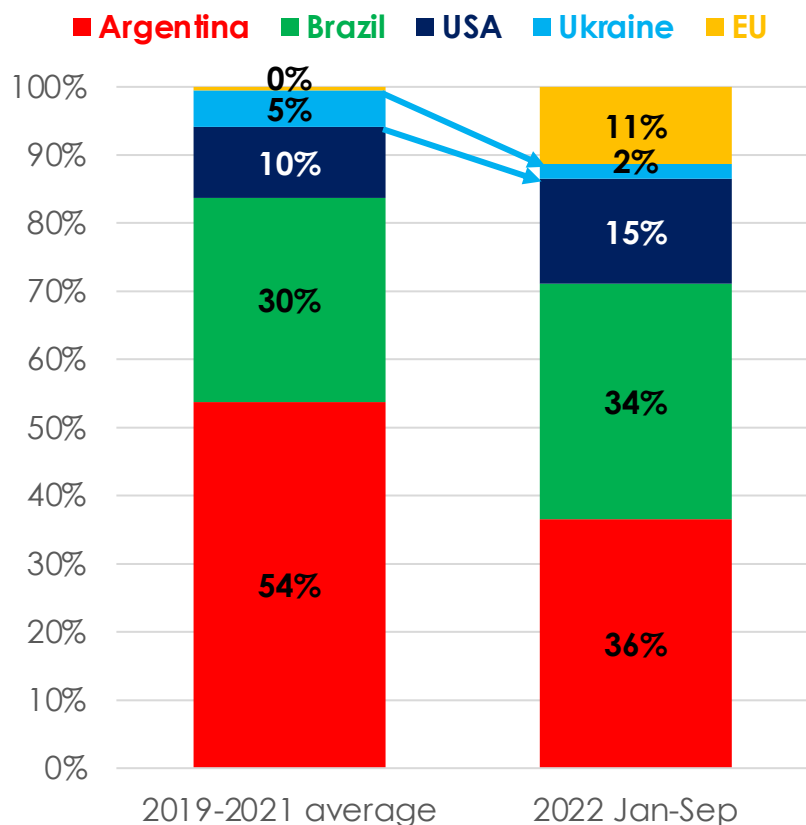
Despite all unfavourable factors, unlike wheat, traditional importers cannot refuse to buy Ukrainian corn. The chart shows the consequences of market participants' uncertainty regarding the continuation of the Grain Initiative in November 2022. At that time, Russia bargained with the different countries and organizations for conditions to buy Russian grain necessary for the livestock industry. Given that the bottleneck of Ukrainian logistics is inspections in the Bosphorus (where vessels may stand in queues for a month), African countries may be forced to forfeit Ukrainian corn in the future, and compensate with supplies from Russia and other countries.



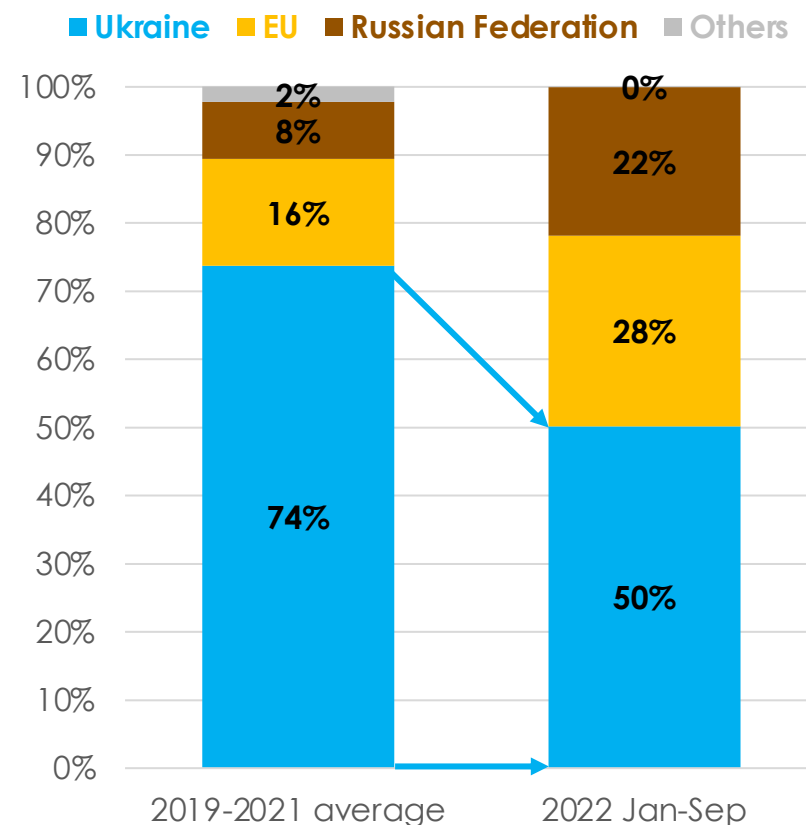
Egypt corn import by origins, %



Morocco corn import by origins, %



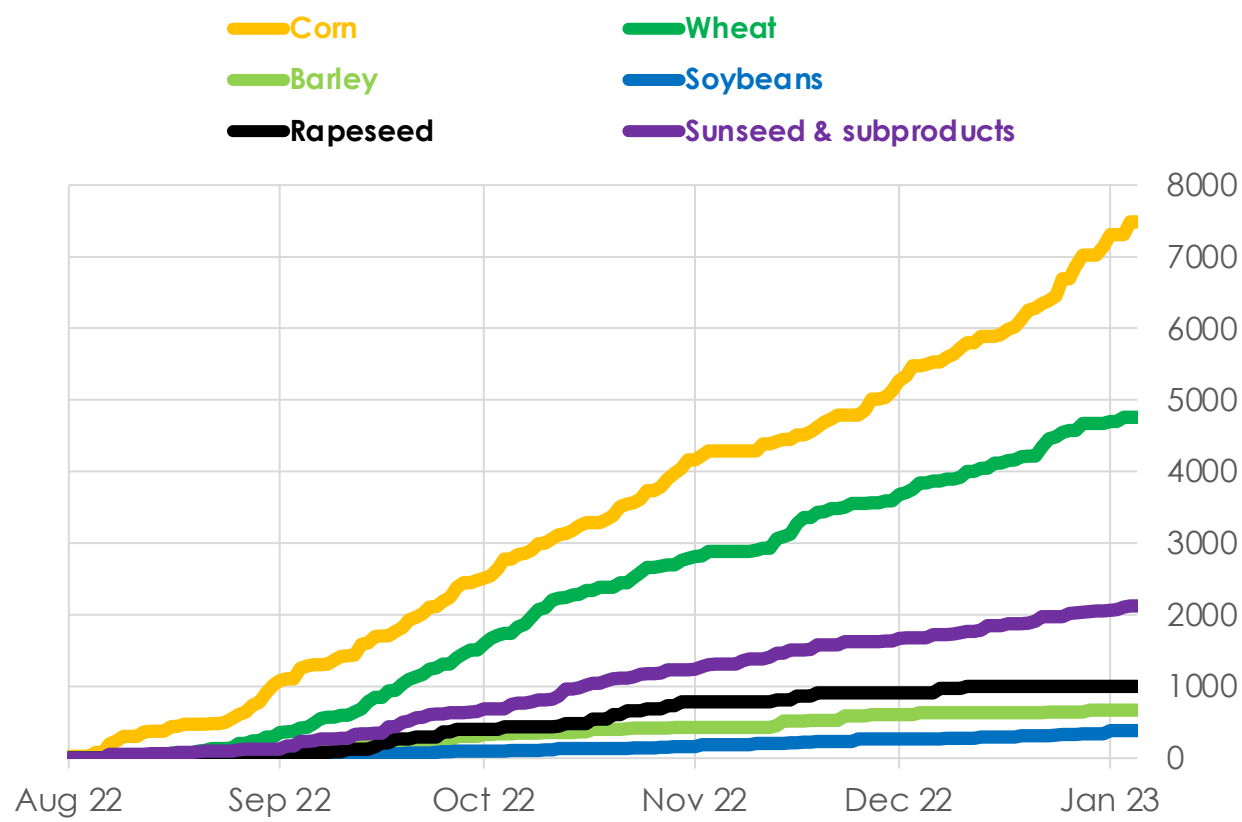
Libya corn import by origins, %



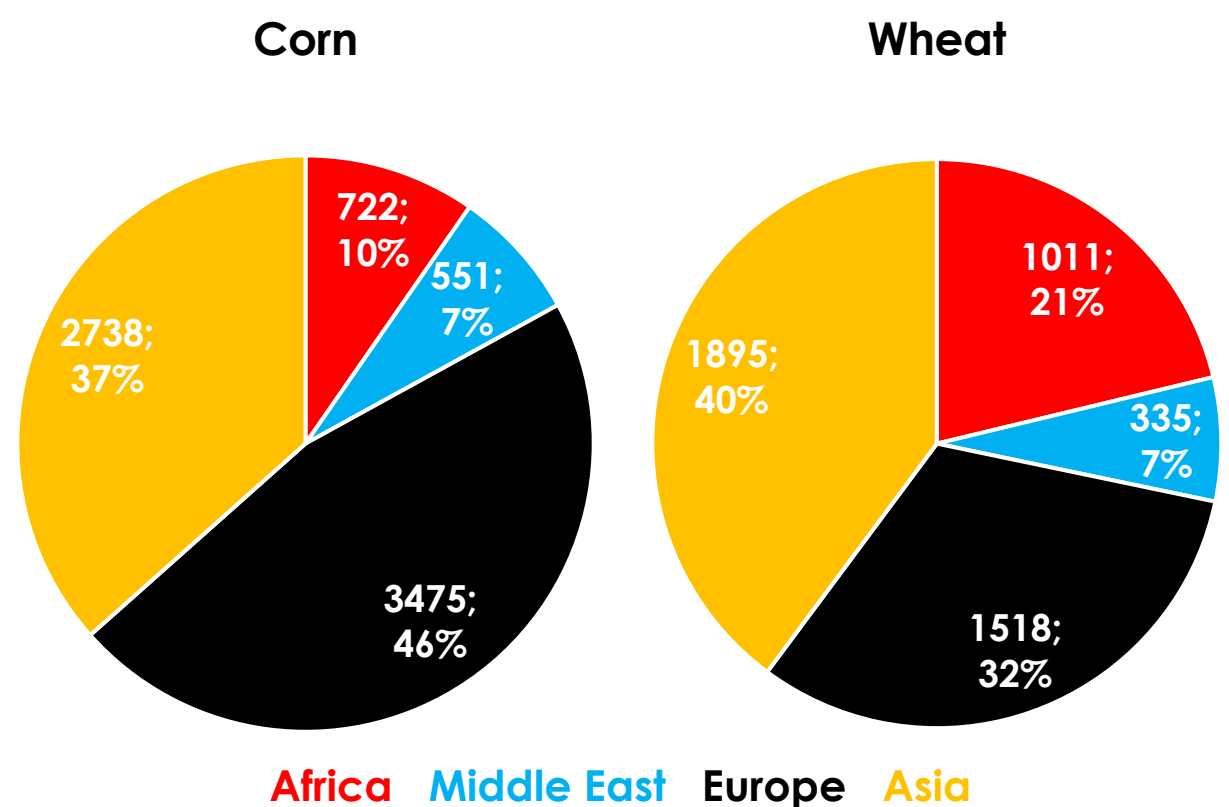
As for the main importers of corn in Africa, due to restrictions on supplies of corn from Ukraine, they partially reoriented to supplies from Brazil, which in the current season had a large harvest.

The most significant loss is decrease in the share of exports to Egypt, and Ukraine has almost disappeared from the Moroccan market. Taking into account the size of the harvest in Brazil and the amount of grain exported, the rate of corn exports from Brazil will drop sharply February on, which shall support demand for Ukrainian corn – unless Russia increases Bosphorus inspection difficulties for Ukrainian corn.

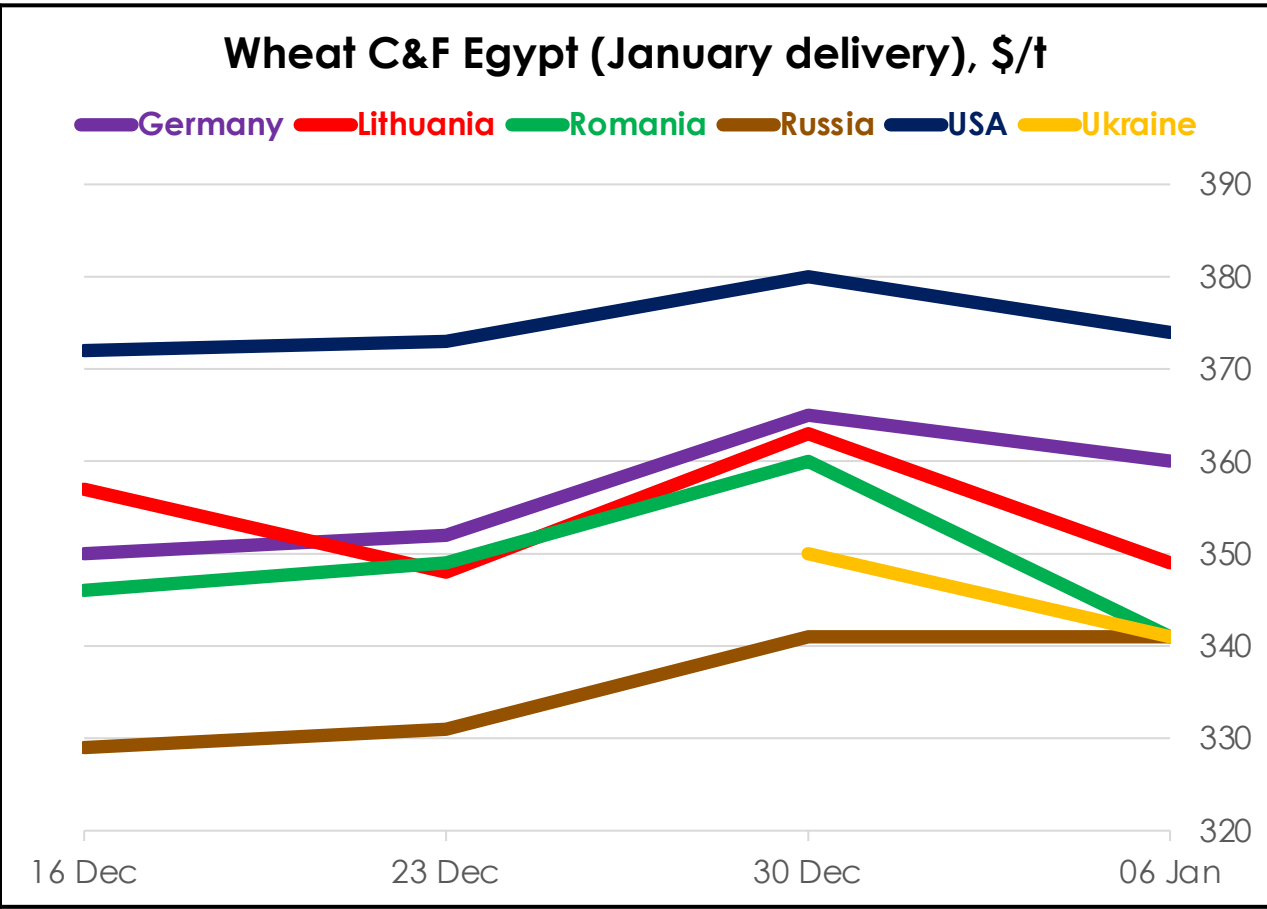
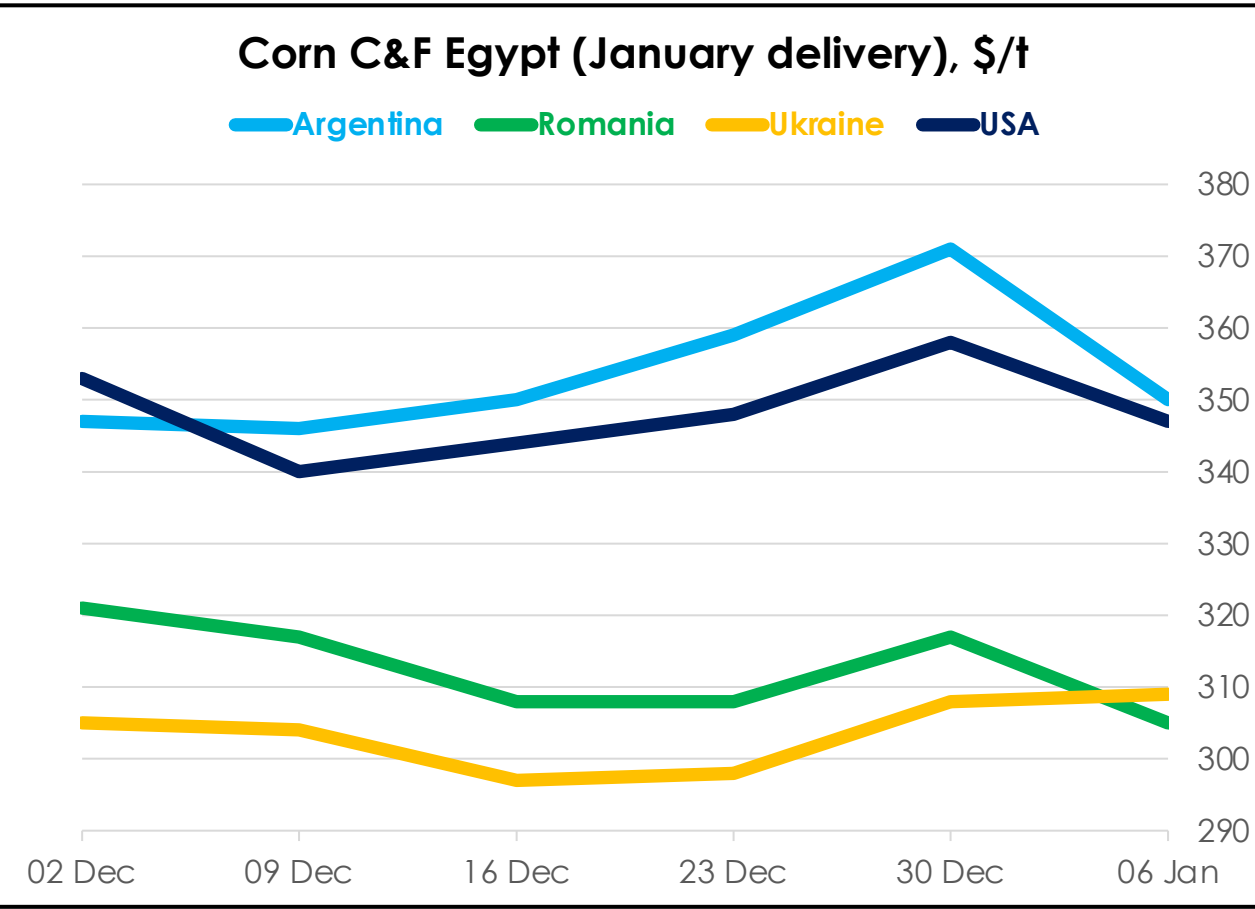
## Cumulative exports from sea-ports (kt)



## Grain Initiative exports distribution by regions (kt)

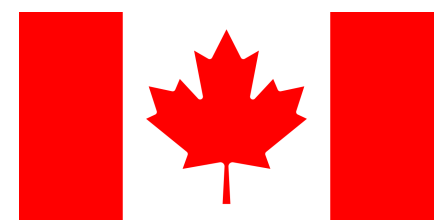


Since November 19, when the Grain Initiative was extended, Ukraine exported 2.9 mln t of corn, 1.4 mln t of wheat, 144 kt of barley, 162 kt of soybeans, 131 kt of rapeseed, and 607 kt of sunseed and subproducts through sea ports. **In total, since the start of the Grain Initiative in July, Ukraine has exported 16.4 mln t of grains and oilseeds.** A significant part of grain goes to the EU and Asia, but that is not unexpected. The opening of sea ports allowed Ukraine to restore demand from its traditional buyers. In particular, Spain, Turkey and China imported 8 mln t of grain and oilseeds, i.e. almost half of crop, exported under the Grain Initiative.



For North African countries, European corn and wheat remain the most profitable because of lower transport costs. This is evidenced by the C&F prices (the price paid by the importer at the port of delivery). Despite the war, Ukraine has to export under market conditions, so its C&F price must remain competitive. Previous studies have shown the logistics costs incurred by Ukraine due to war and downtime while waiting for inspections in the Bosphorus. All extra expenses are transferred to the farmer in the form of lower purchase prices. As an example, freight cost now 40-42 \$/t (45 \$/t in December 2022). Before 24 February 2022, the price was 30 \$/t, that is 10-15 \$/t cheaper. Wheat price for farmers at the elevator in the Central Ukraine (basis EXW, VAT included) is now average 200 \$/t vs 300 \$/t before the Russian aggression.

# Farm Support increases in competing suppliers (2020-22)



USA	European Union	Canada & Japan
<p>During seasons 19/20 and 20/21 agricultural spending in the USA shot up due to two new ad hoc support programs with almost \$50 bln worth of additional support the market facilitation program addressing pressure on the Ag sector arising from retaliatory measures, and a large Covid-19 food assistance program. Both programs are now terminated, but previous support was continued (including by State governments), and sometimes extended or reauthorized under Trade Preferences.</p> <p>For its overall Market Price Support the US apparently reached its WTO limits (Product Specific Aggregate Measurements of Support, namely for the grains sector).</p>	<p>In the <b>EU</b>, various existing programs benefitted from increased rates of advances for direct payments (from 50% to 75%), income and market stabilization, private storage support, direct grants for undertakings in the primary agricultural sector, and general non-agriculture specific export financing schemes (reportedly within the EU's WTO limits).</p> <p>Most EU support launched in the wake of Covid-19 was targeted at the livestock sector (meats and dairy).</p>	<p><b>Canada</b> notified new risk management support programs (Ontario), crop insurance premiums (Nova Scotia) and loan guarantees (Quebec).</p>

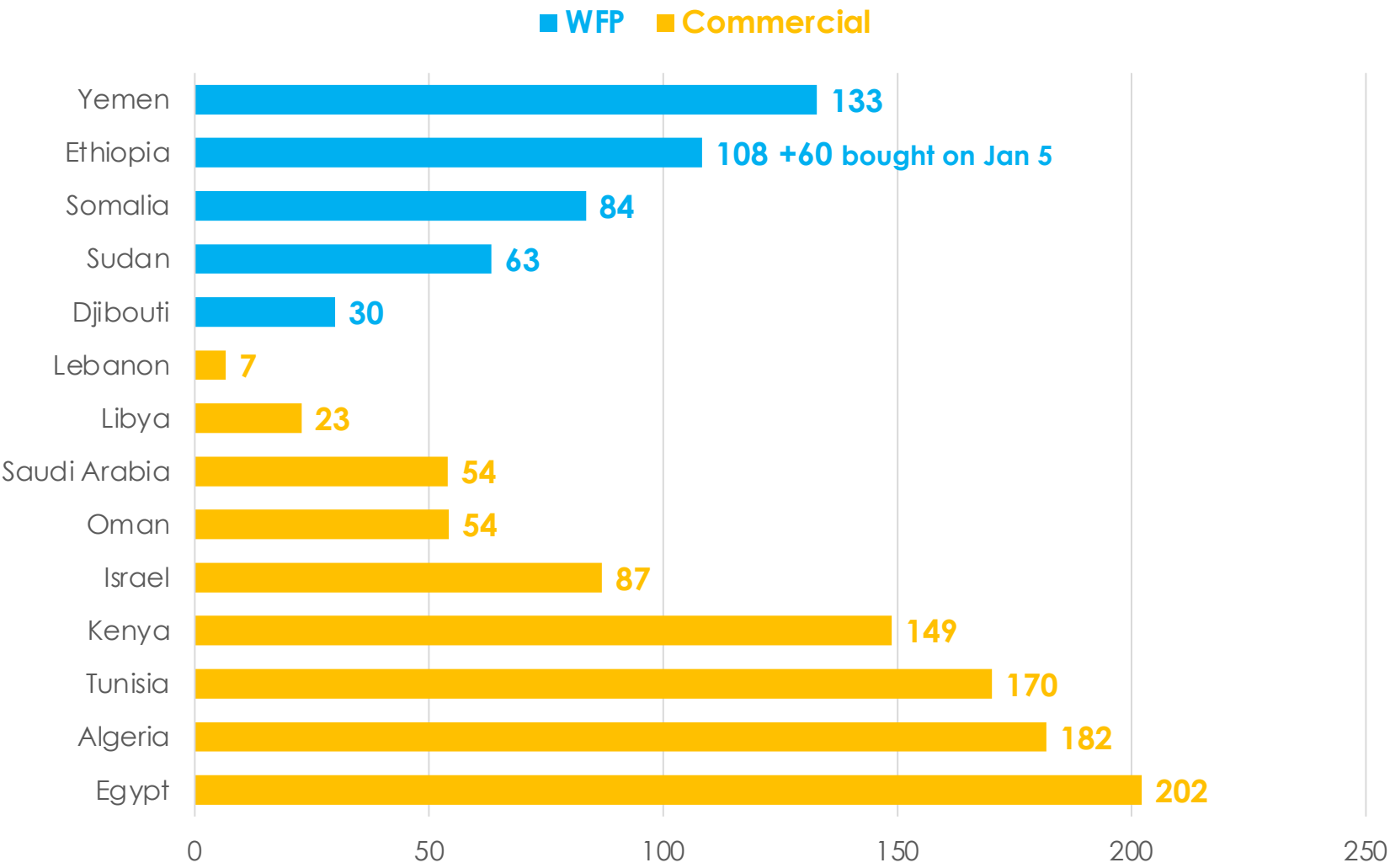
## Support farm in Ukraine:

A coordination council made up of representatives of the Ministry of Agriculture, the Ministry of Infrastructure, the Ministry of Economy, the Ministry of Finance, the Ministry of Foreign Affairs, Ukrzaliznytsia, the State Border and Border Service, the State Production and Consumer Service, the State Customs Service, and relevant associations have already discussed this problem and (according to media reports) appealed to the Cabinet of Ministers to allow insurance companies to offer reinsurance policies (Unfortunately, Ukrainian insurance companies may not have funds...). Hence, a large financial support fund has been proposed to insure such risks similarly to insurance and reinsurance schemes enjoyed by competitors. This is however possible only with the intervention of the top leadership of the state.

In 2023, the Government will continue to support agricultural producers. In addition to the allocated funds from the state budget, there are also agreements with international partners for almost 1.5 billion dollars for various directions of assistance to farmers.



### Ukrainian wheat sea-port exports to MENA (kt)



WFP is actively involved in ensuring food security in the most vulnerable countries. Since the start of the Grain Initiative, 1345 kt of wheat have been shipped from Ukrainian ports to MENA. 418 kt or 30% of this volume was exported thanks to the UN and WFP.

On January 5, there was news that WFP bought another 60 kt tons for Ethiopia (168 kt in total). This is more than 10% of the annual wheat demand of the country, which has a population of 118 million.

However, it should be noted that total WFP purchases in Ukraine for shipments to the five poorest countries, in 2022, only amount to 31% of total exports of Ukrainian wheat exports by sea.



# Insurance market

In December, market participants started to speculate on news that so-called Protection & Indemnity insurance for vessels going to/from Ukraine may no longer include war risks. This could mean that ship owners will not risk to send vessels to Ukrainian ports, with potentially dire consequences for Ukrainian grain export. So far, this new threat to Black Sea transports has not materialized. But a quick look at present regulations and practice shows the importance of insurance for all operators along the food value chain.

When transporting by sea, 3 types of insurance policies are required:

- 1. Marine cargo insurance (MCI)
- 2. Hull and Machinery (H&M)
- 3. Protection and Indemnity (P&I)

Marine cargo insurance (MCI)	Hull and Machinery (H&M)	Protection and Indemnity (P&I)
Carried by insurance companies in favor of the owner of the cargo (or a person designated by the owner). Currently, due to Russian invasion, each contract from Ukrainian ports is negotiated separately, and the insurance company may in principle refuse to insure the cargo.	After the start of the war, a risk premium appeared in addition to the standard tariff, which led to an increase in the cost of freight. At present, H&M risk premium is approximately 1% of the cost of the ship itself	Insurance of the shipowner's liability to third parties for the vessel, cargo and crew. [See next slide for details.]



# Cont'd

## For P&I, there are two parallel markets

International Group of P&I clubs	“Fixed premium” market
Shipowners themselves have created "mutual aid fund". The IG includes 13 large regional shipowner's clubs. It was them who decided not to cover shipowner liability risks related to war from January 1, 2023. Other risks are covered as before.	Companies who insure the same risk but they still can cover P&I risks (as they are not members of the IG group association), and therefore not bound by its rules. Companies that are not members of the Club operate as before (unless otherwise specified).

- IG P&I Clubs cover providing liability cover for approximately 90% of the world's ocean-trade tonnage.
- In addition to the potential increase in the tariff for insurance of liability to third parties - P&I (and as a result - the cost of freight), the list of available companies for concluding a policy will be significantly reduced.
- It is impossible to insure with Ukrainian companies: due to the Resolution of the National Bank of Ukraine dated 2/24/22 No. 18, they cannot pay in foreign currency in favor of foreigners. It therefore makes no sense to conclude policies with them.
- The insurance market for Ukraine has become smaller, but that doesn't mean the trade has stopped.
- According to Reuters, 4 (out of 13) P&I Clubs have already refused to cover the war risk; if other members of IG follow this new practice, full insurance of war risks may become unavailable, or extremely costly.





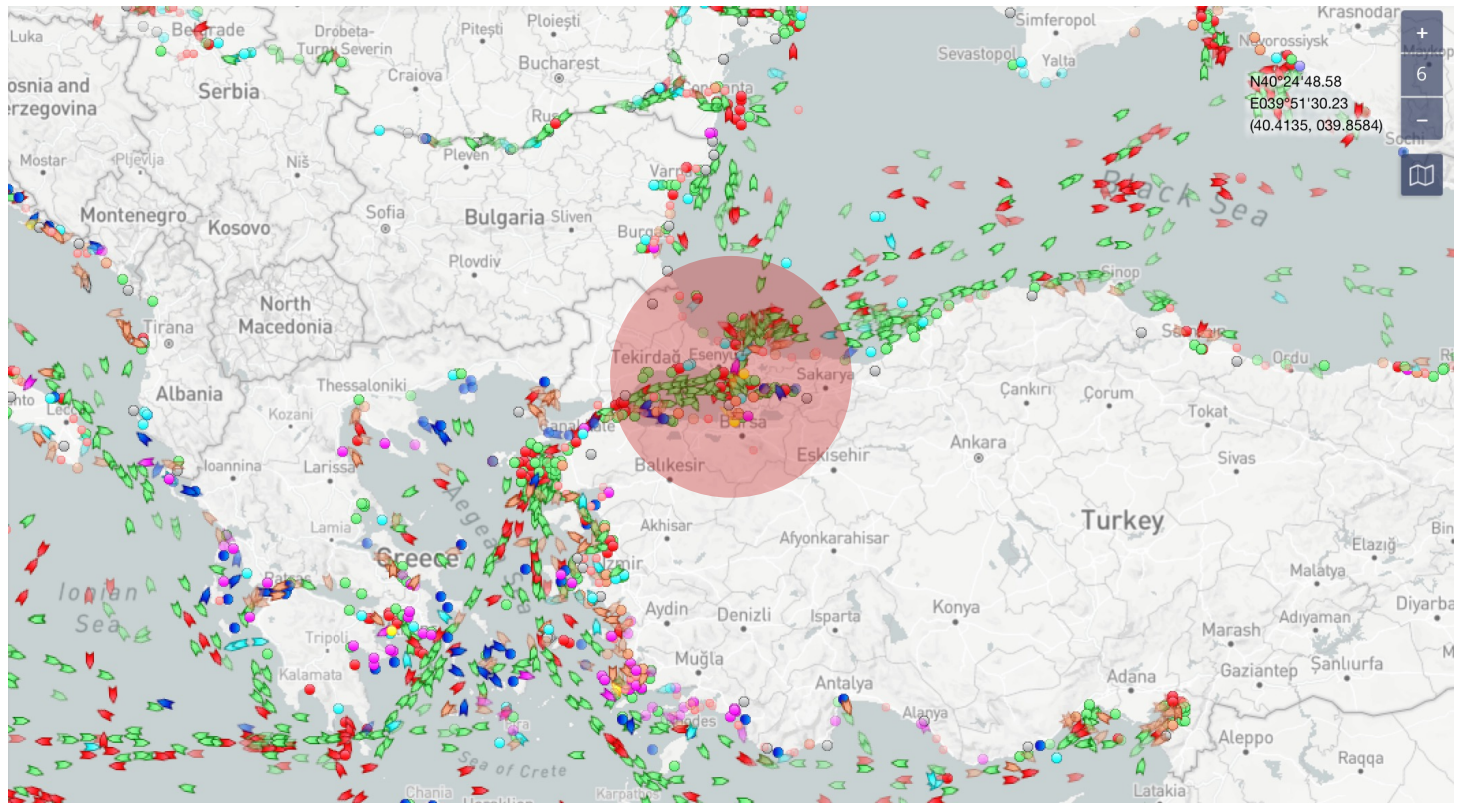
# Baltic Dry Index

average prices paid for the transport of dry bulk materials across more than 20 routes



In the begin of January 2023 the freight from Romania to Spain was 25 \$/t, from Ukraine to Spain 40 \$/t (15 \$/t or 1.6 times higher). This extra cost includes 5 \$/t of insurance, and 10 \$/t is a “premium” for the fact that Ukraine is now in the “risk zone”, thus export earnings are decreasing. At the beginning of 2023, however, freight rates for Ukraine grains appear to be unchanged.

# Marine traffic live map, (as of 6 January 2023) – Bosphorus bottleneck AND farm subsidies

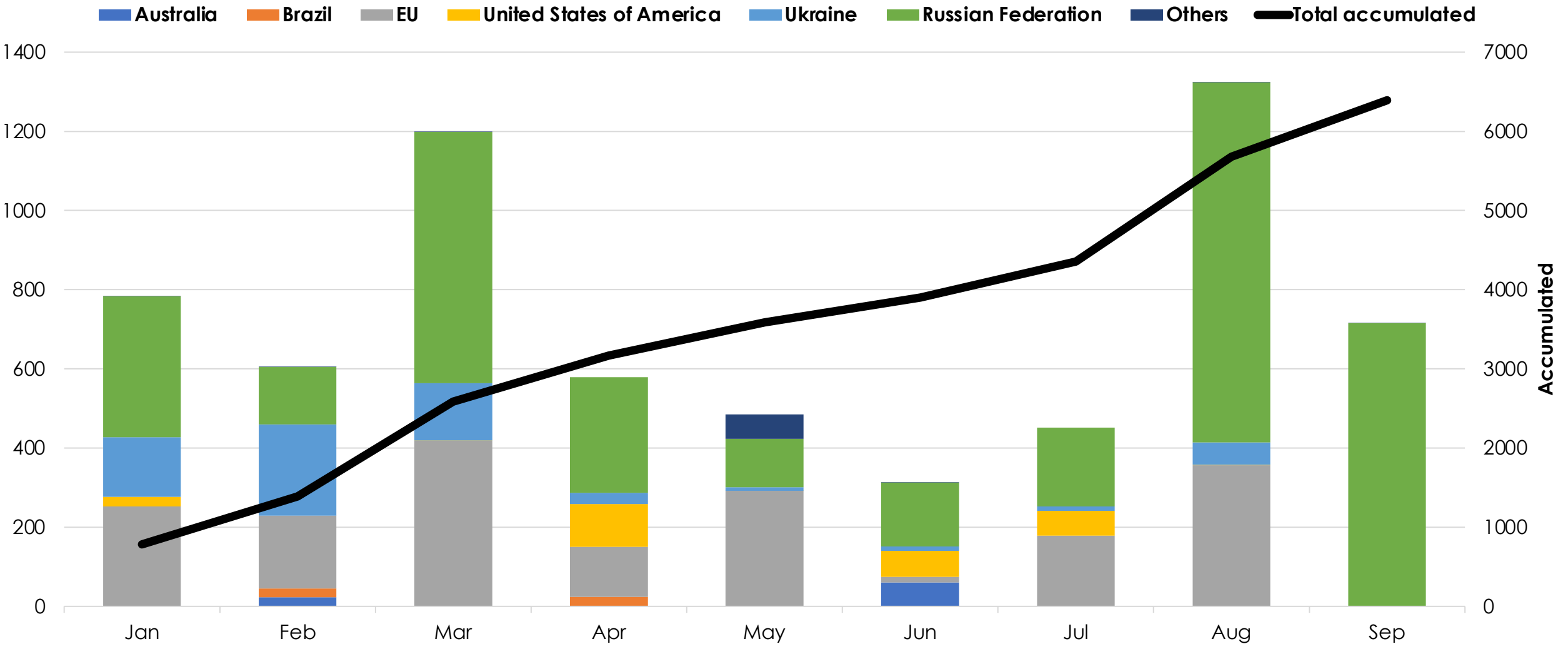


When looking at farm and farm trade support by competing suppliers, it should be noted that WTO agriculture reporting requirements are not yet available for 2022. Moreover, this data does not allow for a compilation separately for supported sector, such as grains or vegetable oilseeds. Hence, the trade and market share impact of these subsidies on African grain and vegoil imports market shares cannot be extracted from these notifications. It seems clear, however, that Ukrainian agricultural production and exports competing for the same markets-are today deprived of such support. This situation implies a risk of a progressive erosion of market shares, even with a fully operational Black Sea Corridor and with food aid for Africa purchased by the WFP in Ukraine. We will look into these market share developments - and at Ukrainian agricultural and trade policy reactions - in the course of our next reports.

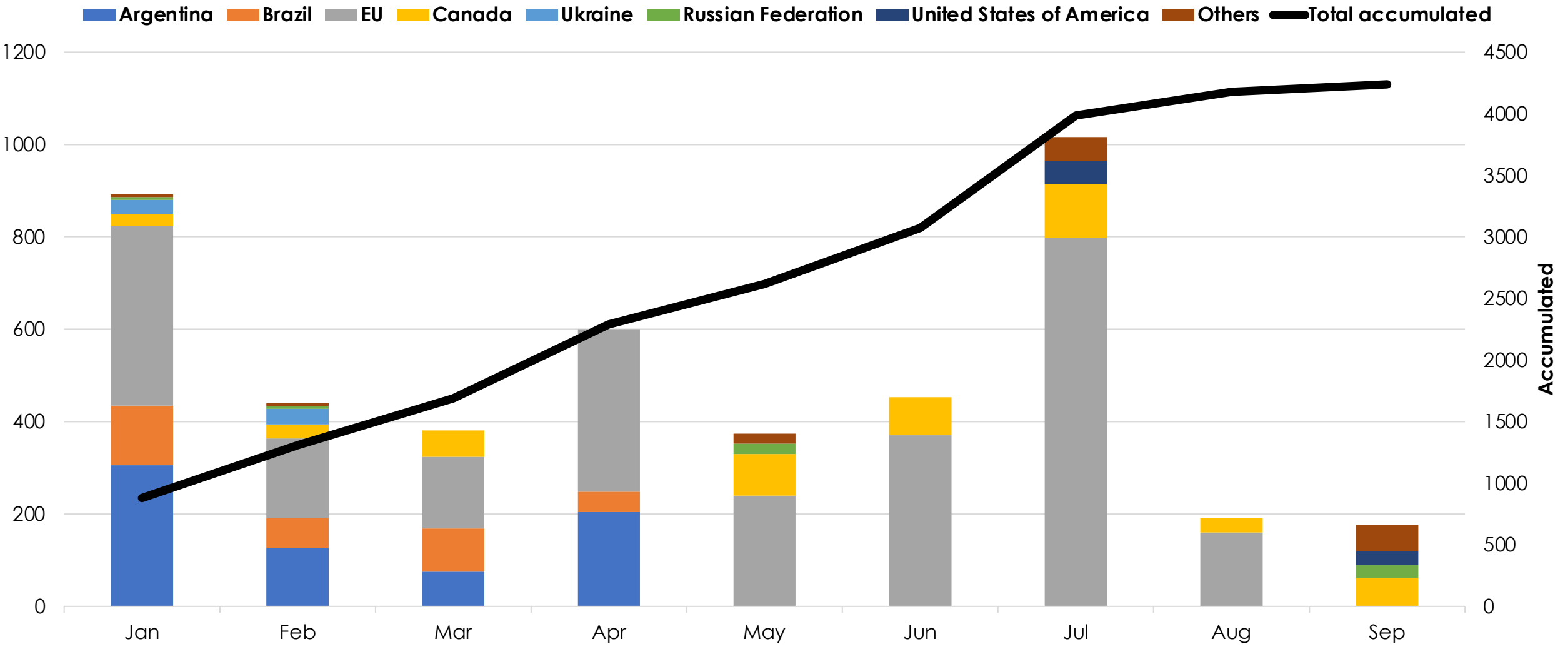
# ANNEX

Page 19	<a href="#"><u>Import of wheat to Egypt in 2022, kt</u></a>
Page 20	<a href="#"><u>Import of wheat to Morocco in 2022, kt</u></a>
Page 21	<a href="#"><u>Import of wheat to Libya in 2022, kt</u></a>
Page 22	<a href="#"><u>Import of wheat to Tunisia in 2022, kt</u></a>
Page 23	<a href="#"><u>Import of corn to Egypt in 2022, kt</u></a>
Page 24	<a href="#"><u>Import of corn to Morocco in 2022, kt</u></a>
Page 25	<a href="#"><u>Import of corn to Libya in 2022, kt</u></a>
Page 26	<a href="#"><u>Import of corn to Tunisia in 2022, kt</u></a>

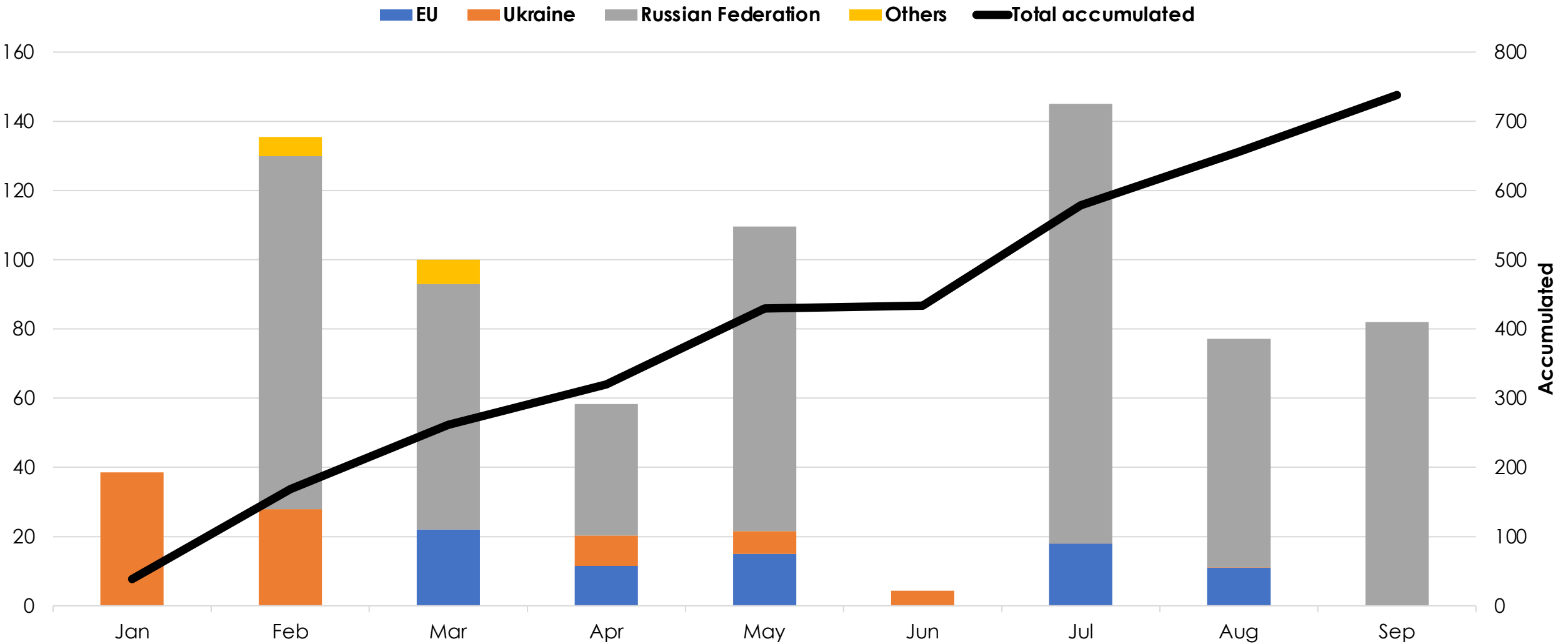
Import of wheat to Egypt in 2022, kt



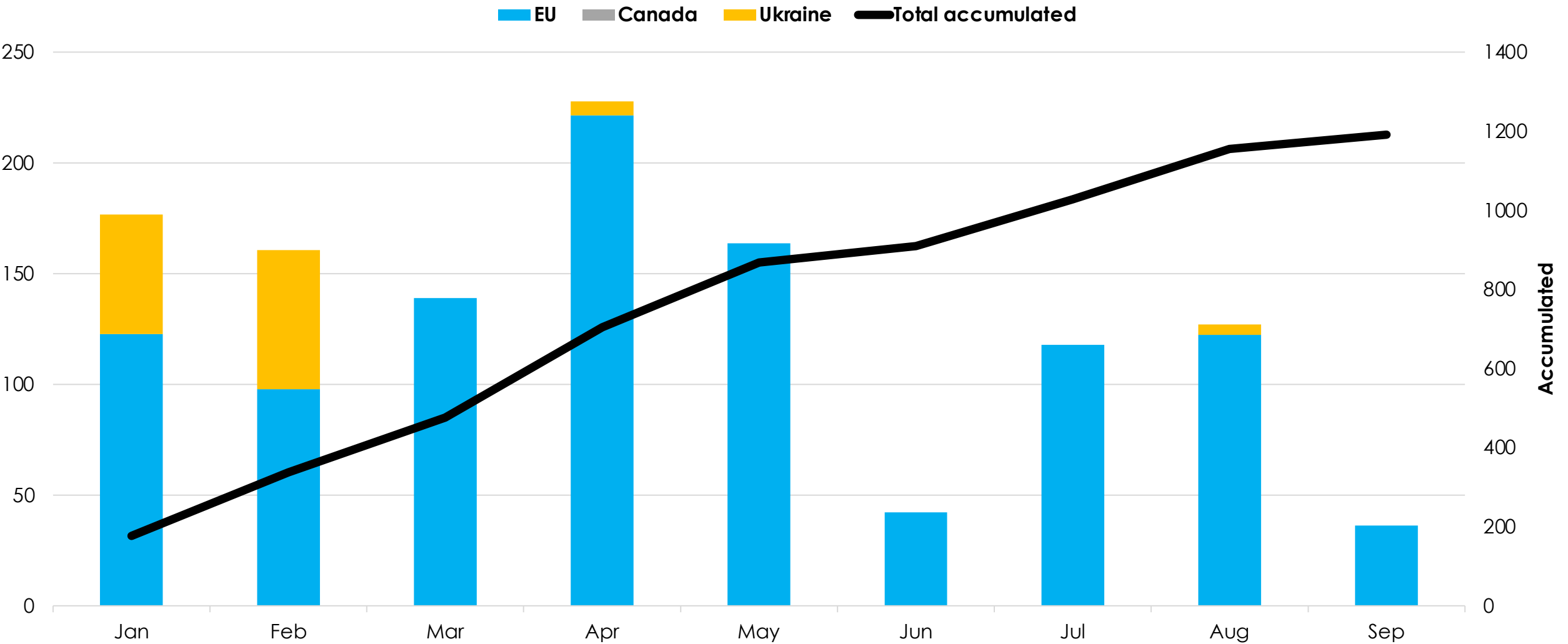
Import of wheat to Morocco in 2022, kt



Import of wheat to Libya in 2022, kt

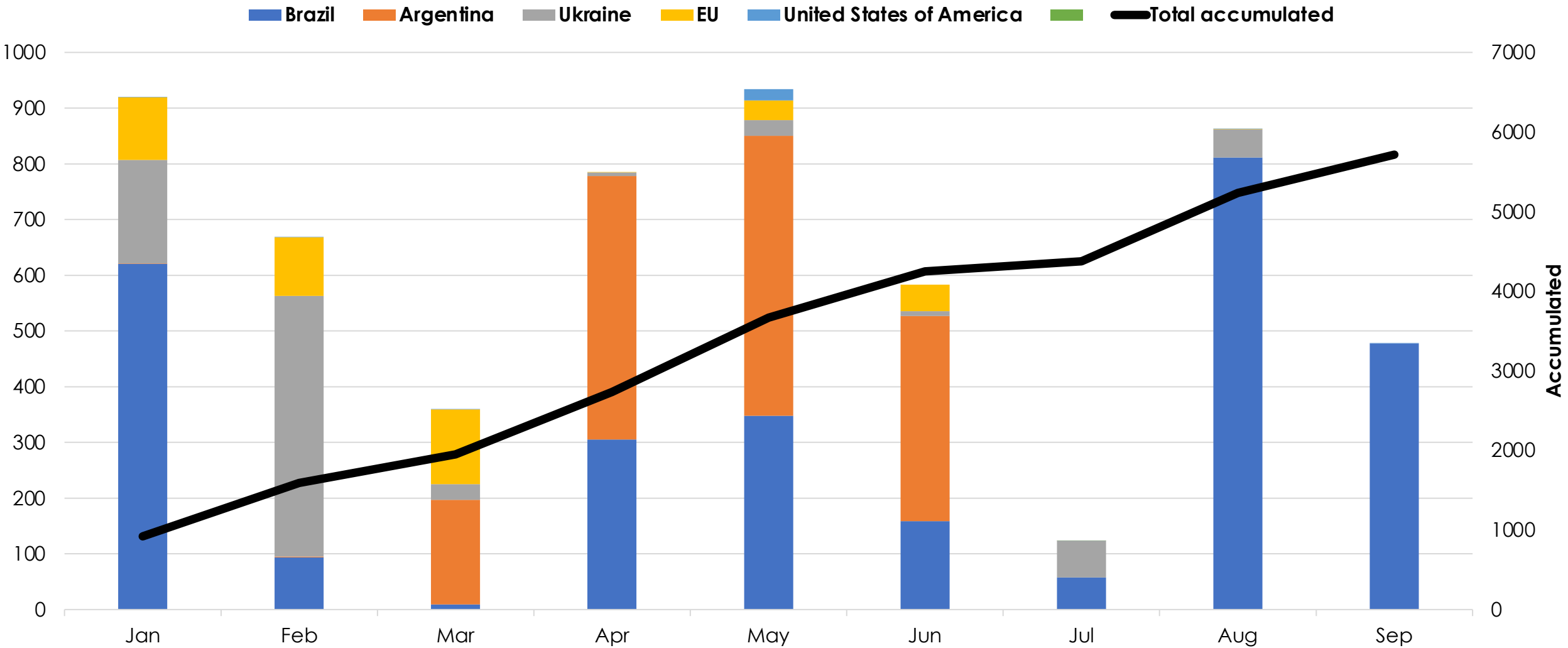


Import of wheat to Tunisia in 2022, kt

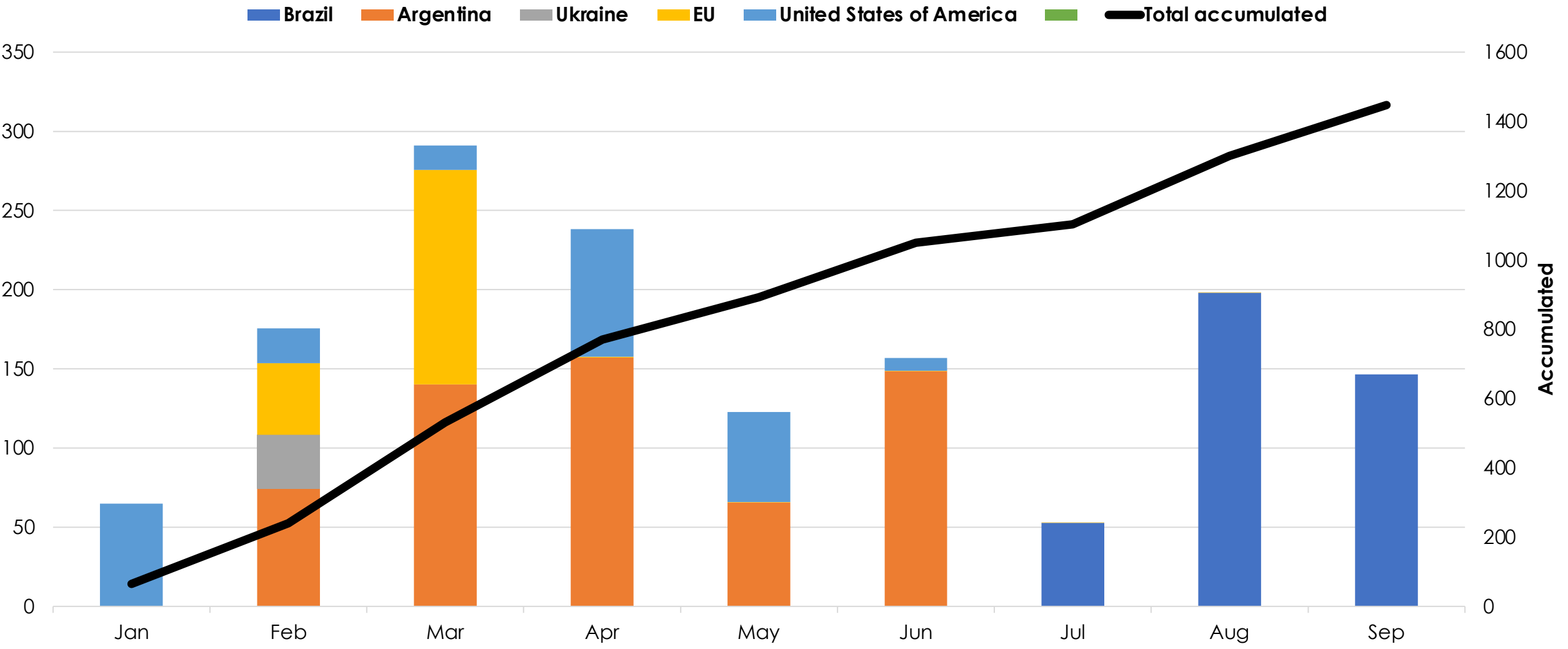




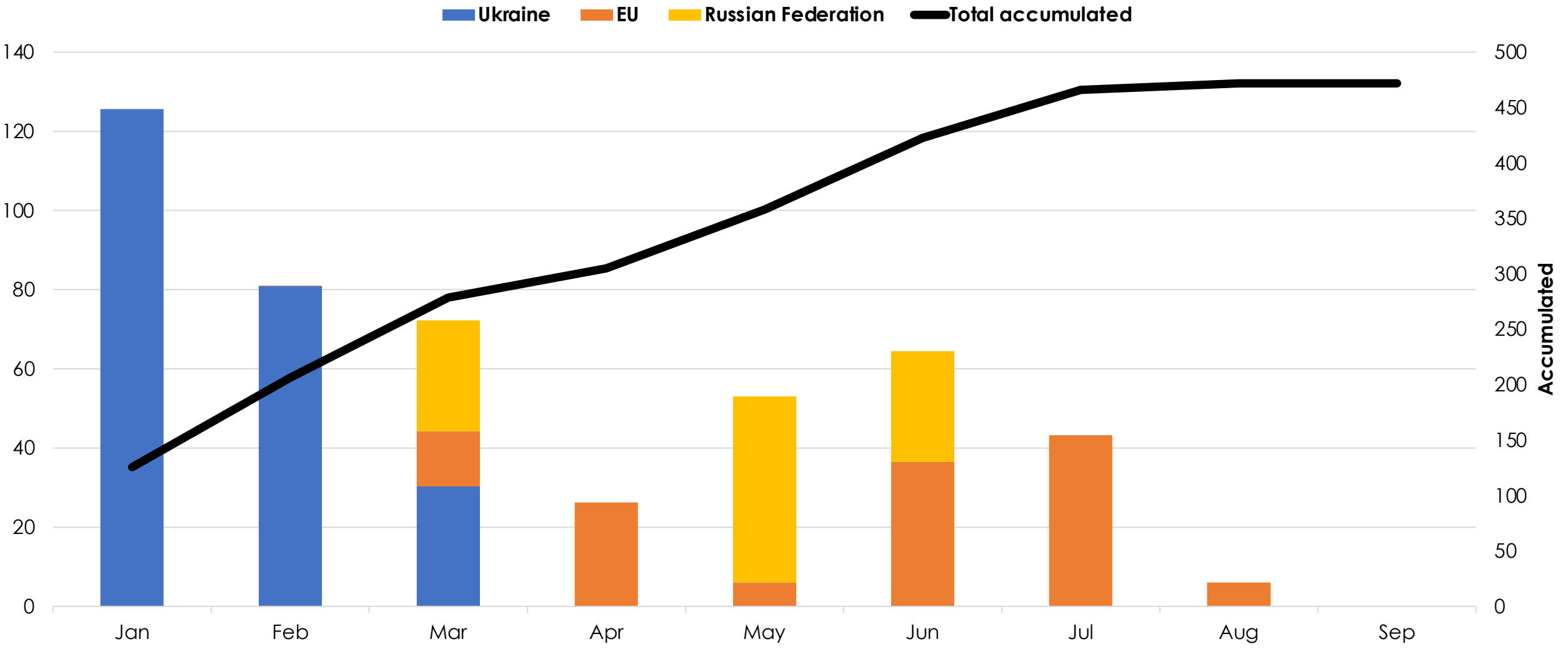
Import of corn to Egypt in 2022, kt



Import of corn to Morocco in 2022, kt



Import of corn to Libya in 2022, kt



Import of corn to Tunisia in 2022, kt

