

## Black Sea Crop Update

7 March 2022

My background is in farming and agronomy, not military strategy, so I'm not the person to comment, but to a lay person, the Russian invasion of Ukraine doesn't appear to be going to plan. The official Russian position is that it is going to plan, just not as fast as scheduled.

So it's not going to plan then?

Whatever plan envisaged by Putin, the outcome appears no more evident, but as each day of war goes by, the implications for Ukraine and the rest of the world continues to grow.

### Crop forecasts

We are holding our current wheat forecasts until we can quantify the situation of the ground. See previous reports for yield forecasts based on speculative scenarios (email for copies).

Forecast summary - wheat	This week MMT	Last week MMT	% change
Russia	85.0	85.0	-
Ukraine	27.3	27.3	-

### Agribusiness news

#### Ukraine wheat harvest

I've noticed a lot of images of Ukrainian wheat fields littered with metal and war detritus, presumably some of which is unexploded ordnance.

Those wheat crops will be knee-high in a few weeks, and it will be all but impossible to clear up that metal, in which case, it will not be safe to combine. Even if unexploded ordnance has been removed, big lumps of metal going through a combine tends to be a problem. Also, I'm not sure you could pay me enough to combine a field that "probably" had all the unexploded stuff removed.

I have no idea the extent of the issue, but as the war continues, it will only get worse before it gets better.

#### Ukraine ports

The main Black Sea ports, including Odesa, Mykolaiv, Yuzhy, appear to be undamaged, although, on Sunday, Ukraine's President Volodymyr Zelenskyy claimed Russian forces were preparing to bomb Odesa.

The Ukrainian government confirmed the Azov port of Berdyansk had fallen to Russian forces, and the nearby port of Mariupol remained under siege. It is assumed that Russia will continue to control Azov Sea ports by controlling access through the Kerch Strait.

If the war was to end, export logistics problems might lie inland; road bridges have been destroyed to slow the Russian advance and rail routes and facilities will likely have received some damage.

It is worth noting that a picture of damaged grain bins is circulating on social media, suggesting it may have been deliberately targeted. The picture is unverified, although a close contact tells me it is legitimate, and we haven't seen other images of damaged grain stores, so hopefully, it wasn't targeted deliberately.

#### Peas

It is looking increasingly unlikely Ukraine will plant peas this spring as most of the pea crop would be planted in oblasts now under military activity or Russian control.

Over in Russia, they are planting peas and will harvest them, but they will face problems trying to export them to EU destinations once SWIFT disconnects from Russian banks on March 12.

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## Crop forecasts

### Ukraine wheat

#### Scenario 1 – 27.3MMT

Our original pre-war forecast was based on 6.5MHA of winter wheat plus 175KHA of spring wheat that would be planted this month, with a yield per hectare slightly above the five-year average after the good winter.

#### Scenario 2 – 18.6MMT

This assumes no spring wheat is planted; some fertiliser and pesticides are applied but only sufficient to support 70% yield potential.

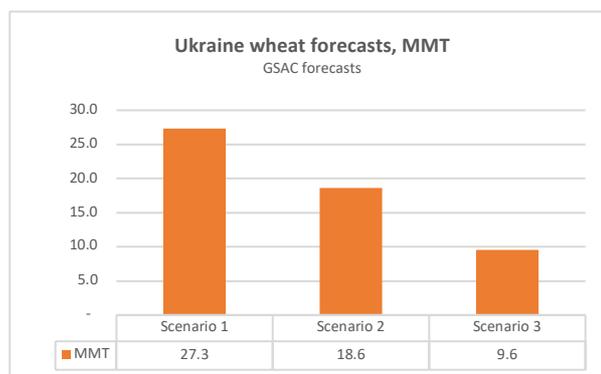
#### Scenario 3 – 9.6MMT

No spring wheat planted, limited fertiliser and pesticides applied, yield 60% of potential, only 60% of the winter wheat crop harvested.

We could run more scenarios, but these three cover the critical issues; although the worst case is zero harvest, the circumstances leading to that are difficult to comprehend.

We have no clear indication which direction the cropping scenario may be heading, but as we move through the cropping cycle, things will become more apparent, for better or worse.

The first criteria we can probably call now is that it is unlikely any spring wheat will be planted, so the total maximum hectares is 6.5MHA. However, as we mentioned in the previous report, hectares will be lost to military activity, unexploded ordnance and general war detritus.



## Agribusiness news

### Russian decree

It appears that Putin's response to today's news that the US would stop using Russian oil was to sign a decree that says a list of raw materials and commodities will be banned or limited from import or export from the Russian Federation by the USA and other countries and international organisations supporting the USA.

The decree stipulates that the list of countries and organisations will be drawn up in two days, but it doesn't say when the list of raw materials and commodities will be released.

The decree refers to "unfriendly actions" of the USA and other countries and international organisations, rather than "enemy actions", which might seem like a minor point but is significant because in Russian diplomatic speak there is a big difference between being in the unfriendly zone and being in the enemy zone.

### Ukraine trains

State-run Ukrainian Railways said it is ready to organise agricultural exports by rail as a matter of urgency after the closure of the country's Black Sea ports because of the military invasion. It's not clear how much they could transport or the pace and cost, we will try and find out.

### Out of office

We will be out of the office for the rest of the week; we will update and post the following report when we can.

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## Crop forecasts

We have to make some assumptions for barley in Ukraine, but here is what I think at the moment.

### Ukraine barley

#### Scenario 1 – 7.5MMT

Pre-war, we had provisionally pegged Ukraine barley at 7.5MMT, down 26% on the previous year.

Last autumn, high input costs discouraged farmers from sowing the winter crop, which can be profitable but is risky to get through the winter, even in the south, where the crop is grown.

Consequently, this year's hectares for winter barley fell to 0.97MHA from last year's 1.31MHA.

We had assumed farmers might plant similar spring barley hectares to last year (also assuming input costs would have stabilised by planting time), and yield was around the five-year average, which brought us to 7.5MMT. The chart top right shows how this compares with the previous five years.

#### Scenario 2 – 5.8MMT

This assumes that in addition to the winter crop, 50% of spring barley crop is planted, inputs are applied, and the yield on what is grown reaches a five-year average, giving a 5.8MMT crop.

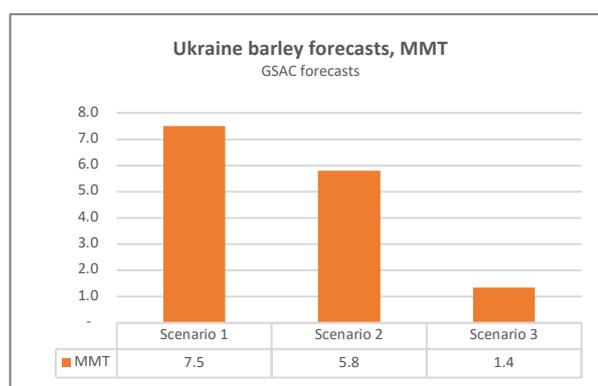
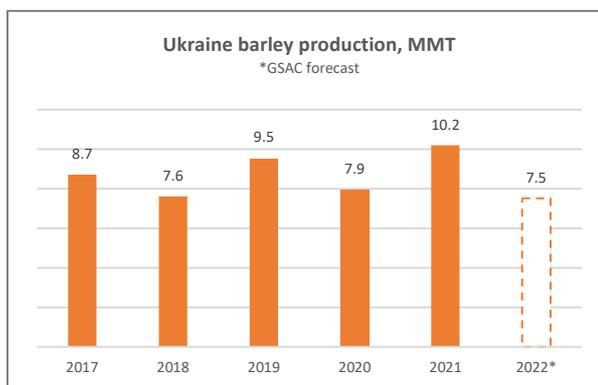
#### Scenario 3 – 1.4MMT

No spring barley planted, limited fertiliser and pesticides applied, yield 60% of potential, only 60% of the crop harvested.

We are starting to hear that some spring barley and spring wheat are being planted where no military activity is reported. This broadly correlates to west of the Kyiv Odesa highway, which runs down the country's centre.

### Out of office

We will remain out of the office until next week, when we will update our observations from Moldova and Romania.



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## Agribusiness news

### **Russian ban grain exports**

Russian Ministry of Agriculture announced an export ban from March 15 to June 30 for wheat, meslin (wheat and rye mixed), rye, barley and corn. It's not entirely clear if the ban has taken place as there are reports grain is being shipped, which might just be what was already booked.

From July 1, 2021, to March 10, 2022, Russia exported 28.1MMT of grain, 30% less than a year earlier. In particular, wheat exports decreased by 31%, to 23MMT, barley 35%, to 2.9MMT, corn 22%, to 1.8MMT.

### **Grain exported via rail**

We heard reports that 300KMT of Ukrainian corn was shipped by rail last week to Poland, with the main destinations Gdansk port for export and local customers.

There has been some debate about how much grain could be exported by rail, and there is no clear answer. Ukraine EU rail gauges are different, meaning grain has to be transferred, and those facilities are in Ukraine, meaning rail car insurance might not allow them into Ukraine. We believe Poland can accommodate 1,050 rail cars per week at something like 70MT per car or 74KMT of grain per week, well short of the 300KMT reported.

Ukraine exports around 45-50MMT of corn and wheat each year; 74KMT a week is less than 4.0MMT per year. We will continue to research this subject and feedback.

### **Ukraine farmers urged to plant**

Bloomberg reports the Ukraine grain and milk-producing business, IMC, wants to keep its operations going but isn't allowing workers into many fields because of safety issues relating to the war.

CEO Alex Lissitsa said their land is in the north, where Russian forces occupy villages, bridges and roads are broken, and roadways are mined, compounding the hurdles for sowings usually done by mid-May. Mr Lissitsa said, "we're going to prepare something and try to plant everywhere, but honestly, nobody knows."

The United Nations estimates 20% to 30% of the fields typically used for winter cereals, corn and sunflower seeds will go unplanted or unharvested for the coming 2022 season.

### **Avangardco report a substantial loss of assets**

Avangardco, one of Ukraine's leading producers of chicken eggs, reports several key egg farms were shut down and destroyed; the birds were left without feed and will have died.

In particular, Europe's largest egg conglomerate Chornobayivska in Kherson Region, lost the ability to feed the birds, transport workers to the farm, and ship finished products to customers due to military action by the Russian Federation. Some of the finished products and laying hens were given to the local population, but most of the flock were slaughtered as it was impossible to continue feeding them.

They say nearly 3 million hens will perish.

### **Ukraine simplifies farming-related rules**

Ukraine has simplified regulations to improve access to fuel, pesticides and agrochemicals for agricultural producers. This includes allowing lower environmental classes fuel, abolishing the fuel excise tax, reducing VAT from 20% to 7%, relaxing the rules on transportation, storage and use of pesticides and agrochemicals.

### **Ukraine bans fertiliser exports**

Ukraine has introduced a zero quota for the export of fertilisers, essentially a de facto ban on the export of fertilisers from Ukraine. This applies to straight nitrogen, phosphorus, potassium, and compound fertiliser containing two or more of the straight nutrients.

The Minister of Agriculture, Roman Leshchenko, said the ban is temporary and applies to restoring the balance of certain goods in the domestic market and ensuring a sowing campaign.

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