Ukraine at war

An assessment of the country's current grain storage and transportation situation

by Andrew Wilkinson, Milling and Grain magazine

Ever since Russia invaded Ukraine on February 24, 2022, the wider world has not only looked on in horror at the attack, but it has also been bracing itself for the arrival of the inevitable ripples of negativity emanating from the area to arrive and engulf their own food prices.

this is largely because grain exports are a cornerstone of Ukraine's economy - totalling about US$12.2 billion in 2021 and accounting for nearly a fifth of all the country's exports.

According to the United Nations Food and Agriculture Organisation, the price of vegetable oils increased by 23% in March, wheat prices by 20% and maize 19.1%, with both Ukraine and Russia being big exporters of these commodities.

That said, prices had been rising before the war because the Covid-19 pandemic disrupted supply chains and bad weather affected harvests: this is now another strain for families.

Perhaps the most frustrating factor in this story id that Ukrainian warehouses are filled with grain at the moment, with these millions of tonnes of grain unable to leave the country. The contents of these grain storage facilities is usually destined for Egypt, Lebanon and Saudi Arabia, with all of these countries already experiencing price hikes.

As one of the world's biggest grain exporters, Ukraine had exported 98% of its cereals via the Black Sea prior to the war. Typically, only a fraction of the country's exports went by rail, where transport costs are higher than shipping.

Switching to cargo trains is one strategy but is one that is also facing logistical hurdles, whilst trucking is rendered futile by the fact that most truck drivers are men aged 18 to 60. This is because this particular demographic group is not allowed to leave the country, thus rendering them unable to drive agricultural exports across the border.

In a somewhat unsurprising move given the circumstances, the Ukrainian government has also banned some grain exports in order to ensure that it has enough food to feed its people, with this situation exacerbated by the destruction of six large granaries by Russian shelling.

In March 2022, Ukraine suspended exports of rye, oats, millet, buckwheat, salt, sugar, meat and livestock since the invasion, and introduced export licences for wheat. That said, its government have been quoted as saying that it would now allow free exports of corn and sunflower oil.

Solving the problem by rail

At time of writing, Ukraine has already lost at least US$1.5 billion in grain exports since the war began on February 24, 2022, with the economic fallout from the war also disrupting supplies from Russia, the world's leading grain exporter.

Solving the problem by rail is also made less likely by an estimated 1100 train wagons carrying grain being stuck near the main rail border crossing with Poland in western Ukraine, unable to transport their cargo abroad.

According to an article published by international news agency Reuters, these carriages are just some of the 24,190 wagons carrying various goods for export, including vegetable oil, iron ore, metals, chemicals and coal, that were waiting to cross Ukraine's Western border.

Valerii Tkachov, deputy director of the commercial department at the state-run railway company Ukrzaliznytsia, says that around half of these wagons are waiting at a junction near the village of Izov, which is the main rail border crossing into Poland, with the junction serving as a gateway for reaching the Polish seaport of Gdansk.

One key issue is the sheer volume of goods that needs to find an alternate route, which is causing shortages of everything from rail cars to staff, according to industry insiders and the government.

Those difficulties are being compounded by logistical issues, such as differences in rail-track gauges used in Ukraine and neighbours such as Poland - a legacy from when Ukraine was part of the Soviet Union.

Whilst the west of the country has been spared by the worst fighting, there have been missile strikes near Lviv, including on oil facilities, and security around the border is very tight.

The disruptions to Ukraine's exports mean that countries that rely on imports of Ukrainian grain - including China, Egypt, Turkey and Indonesia - will need to find alternative supplies or face food shortages, aid agencies have warned.

Clearing the backlog

Because the Ukrainian railway network uses a Russian gauge measuring roughly 1.5 metres, or some 10 centimetres more than the tracks used in most of Europe, railway staff have to physically lift wagons with a jack and then manually change the chassis to fit the Polish tracks.

Alternatively, they can unload the grains from the Ukrainian wagons and pour them into the Polish ones – with this process taking up to half-an-hour per wagon.

A representative from the Ukrainian state railway says that there are currently up to 500 wagons crossing the border near Izov per day - effectively a three week backlog, with another dozen crossing points, many of which aren't backed up.

The state railway is working to increase capacity to 1100 wagons of grains a day crossing into Poland, Romania, Hungary and Slovakia within three months - which would represent a nearly a tenfold increase from its March level.

The organisation is also hiring more people and buying and upgrading its equipment to help switch the rail chassis, diverting staff from passenger trains to cargo transport, and also working to ease other hurdles, such as customs procedures.

Logistical difficulties

Due to these logistical difficulties, analysts have said Ukraine, which had exported 43 million tonnes of grain from the start of the season in July up to the invasion in late February, could export only around one million tonnes in the next three months. Before the war, the government forecast grain exports could reach 65 million tonnes this season.

Ukraine's government has expressed hope that it might be able to export 1.5 million tonnes a month by rail, adding that would be only a third of volumes typically handled by the ports but would still generate some much-needed income for the country's agricultural sector.