

Agronomist & Arable Farmer

OPINION, ANALYSIS & ADVICE FOR GROWERS AND THEIR ADVISERS

"A strong Septoria product at T1 is critical."

REVYSTAR® XE

RICHARD BUDD, FARMER AT CRANBROOK, 1,200 HA, KENT

My aim at T1 is to eradicate any disease at the bottom of the crop, stop it rising and protect the green leaf area - the longer you can keep it, the bigger the yield. On my trial last year, Revystar® XE at T1 increased yield by 0.85 t/ha over a competitor product. It's obvious that using a strong Septoria product at T1 is critical, even if it's dry.



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Looking at alternative strategies to N

Maximising crop yield potential is about taking a more holistic view of crop nutrition rather than relying on nitrogen applications to compensate. Covid brought irreversible changes to the way much of the population worked, so will high nitrogen prices do the same and bring a sea change to fertiliser strategies?

Nitrogen prices are now around the £1,000/t mark - if it is available at all - which is forcing growers to cut back and look at ways to use it and other nutrients more efficiently.

Over the past few months, there has been a growing interest from farmers in using micronutrients and biostimulants, says Grant James, Olmix sales manager for UK and Ireland. "Some growers are looking at reducing nitrogen use by 25%. In a situation like now, where nitrogen prices are high, there are many opportunities. People are opening their minds to different, possibly greener, ways of doing things and asking whether they need to apply as much granular nitrogen."

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Keeping crops healthy is key to improving output and this is about more than simply applying nitrogen.

Mr James says: "Crops require a huge amount of nutrients to keep up with their rapid development. Macro- and micronutrients are essential for quality and yield and often micronutrients are the limiting factor."

There are about a dozen different micronutrients, says Mr James. He adds: "They are important for different parts of crop plant metabolism. Some are essential for development of chlorophyll for photosynthesis and others, fixing nitrogen."

Liquid foliar-applied micronutrients are up to 90% efficient in translocation -

whereas granular fertilisers are about 50% efficient when applied to the soil. He adds: "Micromix's Amix Active Uptake Complex is based on humic and fulvic acids with lignin salts, formulated with a low pH that does not compromise humic content solubility."

"The complex works with metallic cations to generate active uptake at the leaf surface - as opposed to passive movement - and has been shown to consistently generate yield responses up to 25%, depending on soil type and fertiliser regime, even in the absence of any measurable deficiency."

Another useful side-effect of this is translocation of herbicides and fungicides through the plant, he adds. The Amix system will actively carry the plant protection product into the crop. "It works well in a tank mix," says Mr James.

Plants produce a large amount of biomass in spring, he adds. "Crops are stressed at the best of times and often there is nothing to alleviate this. Biostimulants interact with the crop and effect physiological change resulting in better root production, anti-stress capabilities and more efficient plant metabolism."

There is still a lot to learn about micronutrients and biostimulants but there has been significant progress, says Mr James. He adds: "We have come a long way from throwing seaweed around. We need to find a way of imparting this knowledge to the industry - what works and what doesn't. Olmix is conducting replicated trials in the UK and Ireland - and widely across Europe."

"We are still learning how biostimulants affect physiological functions - the best way is to apply them before you see nutrient deficiencies and stress signs. Priming of the plant seems to result in a beneficial effect and complete recovery of the crop, resulting in a healthy outcome in terms of both quality and quantity."

From July, such products will need to be registered in the EU, requiring additional trials data. This is also likely to happen in the UK.

Mr Jamea adds: "We can't afford to isolate ourselves otherwise we won't be able to trade with Europe."

"Claims will need to be supported with validated data - the industry needs to set a protocol to support product claims and advanced research will help to develop a better understanding of which factors we need to modify to improve yield and quality."

Recent events provide opportunities to adopt technologies like micronutrients and biostimulants and see real economic value. He adds: "Biostimulants and organic products can help to enhance sustainable agriculture as well as enabling growers to try alternatives to nitrogen." 