Late-sown seed treatment fulfils early promise

A seed treatment is helping growers establish late-sown crops more successfully, as *Andrew Blake* finds out

Simon Trenary and Nick Tyler believe Take Off ST seed treatment helped this crop of Solstice early on.

A novel seed treatment, developed mainly to help late-sown crops get away well, could help to explain why this season's wheats on a Wiltshire farm recently appeared much more promising than last year's.

Launched last year by Plant Sycence, Take Off ST was applied for the first time to Nick Tyler's 222ha of Solstice on the advice of Countrywide agronomist Simon Trenary.

Most wheat at Home Farm, Heddington near Calne is grown after forage maize on clay soil and drilling has to wait until after maize harvest.

"Last year, we managed to get it all in by the end of October," says Mr Tyler. "But the year before we didn't finish until Boxing Day. The danger with maize is that the land gets wet and hard to work." Only on the smaller area of chalkland is September sowing, after oilseed rape, ever achieved.

Inevitably, the crop's overall potential suffers, says Mr Trenary. "Two years ago, we replaced feed with milling varieties on the later-drilled fields, using the premium to add value," he explains. "Last autumn, we applied Take Off ST to try to claw back some of the lost yield potential associated with later drilling."

Using appropriate technology, he believes, can boost output – even from the relatively late-sown crops.

"In the past, we've struggled to get 7.5t/ha; now our target is 10t/ha," he says.

FAMILIAR MIX

The new seed treatment contains similar chemistry to Plant Sycence's Nutri-Phite, namely pyroglutamic acid (PGA), a plant biostimulant, and nutrients including phosphorus.

"I've been using Nutri-Phite PGA (the foliar version of Take Off ST) for five years as part of a spring programme, so it seemed logical to assess it as a seed treatment. Where we've applied Nutri-Phite PGA in the spring on struggling crops, responses have been very encouraging – a 0.5t/ha yield response isn't uncommon, which at £80/t is a 6:1 return on the investment."

HELPING HAND

As a seed treatment, the chemical combination is intended to help crops through their first three weeks of life, especially under adverse conditions, and Mr Trenary hopes the results at Home Farm will mirror those in Masstock trials in 2008.

There, across five varieties, the average yield from Take Off treatments was 0.4t/ha more than the untreated offering a similar return on outlay as Nutri-Phite PGA.

"I like the idea of Take Off ST. If it can get crops going better, they should harvest any nitrogen left from the previous maize crop better – although this is the first time I've used it and there's clearly no guarantee. But hopefully we've locked in that sort of yield advantage for a worst case scenario spend of £9/ha," says Mr Trenary.

Late sowing merits drilling 350seeds/sq m, he adds.

By the end of June, Home Farm's crops appeared particularly well. "I've never seen our fields looking so strong. The crops are more uniform and tillered well," says Mr Tyler.

However, other factors beside the seed treatment and timely sowing had been at work, he admits. "We did make a much better job of our seed-beds."

For two seasons ploughing has given way to passes with a Sumo Trio cultivator whose subsoiling legs help undo damage often caused by maize harvesting trailers, he explains.

Mr Trenary regards the treatment as another element in an increasingly valuable "tool kit" to optimise output that already includes Nutri-Phite and Route from De Sangosse.

"I use Route at T0 to supply nitrogen in much the same way that Nutri-Phite supplies phosphorus, and we're getting more grains per ear and bigger ears."

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TREATMENT HELPS OVERCOME P SHORTAGE

A persuasive argument

Results from a trial last autumn sowing one tonne of Take Off-treated Oakley wheat in the middle of a field without the treatment have persuaded Lincolnshire farmer James Walgate of its value.

The crop, following oilseed rape, was sown at 180 seeds/sq m relatively early – in late September. However, temporary phosphate deficiency can hamper emergence on the farm's chalky wold soils, explains Mr Walgate.

Emergence from the treated sowing was 40% better than that in the surrounding crop, he says. "We got better root development and establishment. When we weighed the roots we found a 300% improvement."

The trial was followed through to ear emergence. "There the treated area gave us 44 ears/sq m, but the rest only gave 37/sq m."