

# Keeping weeds front of mind

*“Travel as early as you can, for maximum control.”*

CHRIS MCCLYMONT

Although early drilled crops often mean a compromise on grassweed control, it seems in most cases, pre-em herbicide programmes have delivered the goods. But as those residuals begin to run out of steam, *CPM* asks, what does that mean for the spring?

By Janine Adamson

**A**ccording to weed scientist, John Cussans, the future is a lot like the past, only slightly different. In other words, while last season concluded with low weed populations and minimal seed return, that doesn't mean fields won't require monitoring this spring.

“Although we're not shaping for a complete meltdown in weed control this year – the situation appears to be quite good with plenty in our favour – we have to understand populations at a field-level,” he urges.

“There may still be a flush – yes, lush crop canopies will help to suppress later germinating weeds, but the concern of complacency remains.”

John adds that although there's a natural shift in focus toward fungicides in the spring, weed control shouldn't slip from the agenda completely. “Weeds have to be considered at the same time as planning fungicide programmes – they shouldn't be forgotten.

“Growers have spent money on robust autumn herbicide applications, but to get the maximum results, they

should be followed up in the spring. With the rise in species such as meadow and rye brome, this could mean going out and specifically targeting those weeds because they've not been controlled at all by autumn herbicides.”

Bayer's Chris McClymont highlights that this season's drilling dates will inevitably have an impact. “While early drilling is effective in ensuring a well-established, competitive crop, from a pure weed management stance, it creates problems. Therefore this season, many growers are relying heavily on residual herbicides doing a good job,” he says.

Agrovista agronomist, Chris Martin, agrees that for his growers, the focus will be on any remaining grassweeds. “With some crops drilled in August in the North, populations are definitely there, while broadleaf weeds are less of a concern.

“Equally, for those who switched away from Avadex (tri-allate) at pre-em, wild oats appear to be thriving. That's perhaps been taken for granted in the past, but could come back and haunt us if we're not careful.

“Yes there are finite funds available so you can't use every active ingredient in a season, but when you substitute, you don't always consider the added value a specific product might bring.”

While the efficacy of spring-applied ALS herbicides frequently comes into question, it's often due to an application error, rather than a breakdown in chemistry, he suggests.

“There are many cases where contact herbicides have been applied too late in the spring when the target weed is simply too big – that's not a resistance issue. Being ready for a bright sunny day, even in February, means weeds are targeted when they're small and applications will



## A year-long battle

Weed scientist John Cussans urges that weed control shouldn't slip from the agenda in spring.

## Five decades of blackgrass lessons shouldn't be forgotten

Grassweed control dominated discussions at the AICC annual conference recently

Looking back over 50 years of grassweed research, Dr Stephen Moss sees patterns repeating themselves. He worries that techniques can fall out of fashion, hard-won management lessons are forgotten, and optimism about new chemistry can run ahead of evidence.

Speaking during a workshop at the recent Association of Independent Crop Consultants (AICC) conference, Stephen argued that many of the fundamentals of blackgrass control remain unchanged. He warned against drifting back towards earlier autumn drilling, noting a dramatic historical shift.

“When I started in weed research in 1975, less than 5% of winter wheat was drilled in September. By 2012, that had risen to almost 60%. It happened because people chased yield and work rate, but it also coincided with rising blackgrass, septoria and BYDV. We then pulled back when those consequences became impossible to ignore; my concern now is that

we're starting to drift earlier again.”

Stephen stressed that delayed drilling remains a reliable cultural tool. Across decades of trials, it's consistently reduced blackgrass numbers by about a third, not through any single effect, but by stacking several smaller ones, he explained.

Later-emerging plants tiller less, compete less, and return fewer seeds. But perhaps more striking still, is its effect on residual herbicides. “People can overlook what I call the ‘jewel in the crown’. A 3-4-week delay in drilling doesn't just reduce blackgrass numbers, it also makes pre-em herbicides work better.

“In AHDB-funded trials, and in large company datasets of flufenacet-based pre-em's, we saw around 25-30% improvement in efficacy from drilling later. That's a significant gain, yet I don't see enough work asking whether the same benefit applies to newer chemistry.”

On cultivation, Stephen refuted

the idea that ploughing has no place. He argued that occasional rotational ploughing may become increasingly valuable and is convinced that in 10-15 years' time, it'll be seen as a useful part of all systems.

“Not every year, but occasionally. It helps to bury grassweed seed, moves immobile nutrients down the profile, prevents pH gradients, relieves surface compaction, and can reduce the build-up of surface organic matter that can affect residual herbicide efficacy,” he added.

That build-up of surface organic matter, while desirable for soil health and soil fauna, is another concern. Stephen warned that rising adsorption in the surface layer can affect herbicide performance, yet little independent work is examining how modern residuals behave under these conditions.

Herbicide resistance was another area where he cautions of complacency. Drawing on 35 years of routine testing covering more than 3700 samples, he

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## Valuing existing knowledge

Dr Stephen Moss argued that many fundamentals of blackgrass control remain unchanged.

flagged a specific finding. “What gobsmacked me was that for every herbicide we looked at, the decline in efficacy over time followed a straight line. No resistance researcher would predict that, yet there it was,” he said.

For Atlantis (iodosulfuron+ mesosulfuron), efficacy declined by about 3.7%/year,

while pendimethalin efficacy declined more slowly. “That backs up what farmers see in the field, but also shows that resistance isn’t a sudden cliff edge. It’s a steady erosion that people often ignore until it’s too late.”

Since retiring, Stephen has worked with water companies, focusing on propyzamide losses from the field. He’s shown how moderate-mobility herbicides applied at high rates remain the biggest threat to drinking water, particularly where runoff occurs.

“When you see propyzamide washing off a field, running down a slope and closing a water abstraction point for weeks, science goes out of the window. In those situations, better decisions on rates, timing and preventing surface run-off matter far more than laboratory studies,” he concluded.

- ▶ be effective, even if broader conditions aren’t ideal.”

According to Chris McClymont, this is the school of thought behind Atlantis Star (mesosulfuron+ iodosulfuron+ thiencazuron), which can be applied from 1 February at the full rate, delivering 15g/ha of mesosulfuron.

“It’s less impacted by cold air temperatures, meaning those early applications will be effective. Travel as early as you can, for maximum control,” he stresses.

“Equally, in going early and not mixing a graminicide with fungicides, you’re avoiding complicated tank mixes which can ultimately compromise efficacy.”

He also raises that given last year’s news on glyphosate-resistant Italian ryegrass, work continues to understand the magnitude of the problem and that it should be a wake-up call.

Currently, there are only three absolute confirmed

cases, with other samples being assessed. John says this still equates to a small handful of incidences spread across the country. “What we can conclude is that there’s the potential to select for glyphosate resistance where there’s high risk practice – a combination of factors such as dramatically reduced mechanical weeding, use of a low-disturbance drill, and repeated spring cropping.

“It all puts pressure on glyphosate and is what all of the confirmed cases have in common,” he explains. “But despite this risk, given the limited number of cases, there’s a small window of opportunity during the next season for us to focus on the problem, test suspected samples and hopefully prevent it from becoming widespread,” concludes John.

Those concerned about a failure in glyphosate performance within Italian ryegrass should contact Bayer or ADAS. ●



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