Pushing the barley renaissance

A well-planned barley disease strategy will reap rewards come harvest.

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Barley is back in favour, riding high on the crest of rising cereal prices. But it’s quite a different crop than it was five years ago – varieties are high-yielding and respond well to fungicides, with two new types pushing as good yields as six rows.

Growers are also spoilt for choice with chemistry to tackle diseases. The main difference here is that anticipates disease issues.

Which are the key timings?

1 The main timing, at GS30-32 (before second node detectable). It is the best opportunity in barley to eradicate the disease that is present and to protect new growth. You should, therefore, plan for the majority of your disease control spend to be focussed here. But timing is critical, with emergence of leaf three the ideal stage to spray.

2 The other key timing is T2, GS39-49 or up to awn-peeping stage. If you have a malting crop, GS49–52 (after awns emerge) is the best timing. However, this is a useful timing to protect against Ramularia or if netting on the leaf, while the spray is that going too early leaves upper leaves exposed. Too late and a lot of disease may already be present. High-quality malt growers should, therefore, aim to fit two sprays in before emergence for best results.

How does timing influence disease control?

The main difference here is whether you have a spring or winter crop. In winter barley, you will be chasing disease that has developed over the winter, so the emphasis will be on eradication, especially early on in the spray programme. You need to think forward and protect new growth, too. This underlines the importance of getting the timing right at T1 – the goal is for a clean environment for leaf three and beyond.

In spring barley, protection is the name of the game. Since the crop develops later, it may be exposed to high levels of disease from nearby winter barley crops. So the most successful strategy will be broad-spectrum control that anticipates disease issues.

What are the main chemical components?

The new good news in barley is that growers are currently spoilt for choice. There are some very strong products in the armoury in all the main groups, and most offer broad-spectrum control. It is important to make best use of all of these, for the sake of both efficacy and to keep a lid on resistance.

Triazoles are the key components of eradication activity. This makes them the base component of the T1 spray in winter crops. Strobilurins are very much major players in barley – there is resistance in net blotch (see Strobilurins Academy on p12-13), but they currently have good activity on rhynchosporium and are still the product of choice for rust control.

The new SDHI chemistry has an important role to play in barley, particularly for protecting new growth. The best way to use these products is complementary to triazoles within a programme, targeted to where high-value protection is needed and always within a robust mix.

What are the extras you need to build in?

Chlorthalonil is a useful extra, particularly as part of an anti-resistance strategy at later timings. Don’t rely on it in net blotch or rust control, but partnered with SDHIs it is effective on rhynchosporium and ramularia. Cyprodinil is a product that has fallen out of favour, but again this is a useful partner with SDHIs and offers control of erystos. It also has been a useful component at T3 in winter barley with a monobutyrine fungicide.

Always be on the lookout for rust control.

Trials demonstrate that T1 is the key timing for barley disease control. The definitive cereal fungicide


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Golden rules

- Start early – unlike wheat, GS31 is the key timing in winter barley
- Don’t skimp on doses – current crop returns make robust treatments worthwhile
- Use mixtures and sequences – there’s a good choice and it will help fight resistance development

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