

Sclerotinia

- the biggest risk with oil price slump

Is *Sclerotinia* too damaging to risk anything but the most robust disease control tactics?

With oil prices having slumped, growers have got to weigh-up inputs this season, but **Steve Cook of Hampshire Arable Systems** warns that cannot be at the expense of pest and disease control.

Mr Cook has been going through the figures with his customers. He says growers need to be thinking of 4t/ha plus to see a return. "Inputs and operations alone will cost in the region of £200/t. With prices at £250/t there's little margin for error so the more you can protect the yield economically the better off you will be."

With crops coming through the winter well he is now looking to extract the best value from inputs. Fortunately input costs to date have been helped by a kind autumn and winter, and he says that looks like continuing into the spring. "The aphid threat was lighter than many expected, slugs were manageable and the pigeons haven't caused as much grief until recently and then only in some places. Also with *Phoma* coming in late we were able to control this and light leaf spot (LLS) with

a single treatment of Proline²⁷⁵ in the autumn.

"LLS levels are lower than last season despite warnings of extremely high risk, thanks to a bit of winter check and that we can travel to apply protection this spring. In the south west we have not seen the level of CSFB (adults and larvae) that have been seen in the east. Hopefully it will stay that way."

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But he says inputs cannot be compromised and agronomics need to be appropriately targeted. "Lower levels of LLS doesn't mean we can focus stem extension sprays on canopy manipulation alone. But what it does mean is that you don't need to use the most potent options, an active like tebuconazole, prochloraz or thiophanate-methyl will suffice this season. It means you can save Proline²⁷⁵ for mid-flowering sprays," he notes.

And that encompasses Mr Cook's targeted approach. With fewer host crops in his area and less infected soils *Sclerotinia* isn't as problematic as many parts but he doesn't want to take any chances. "It can rob you of a tonne and is up there with LLS in terms of risk. It's why I'm always looking to target prothioconazole as my mid-flowering spray and if necessary will support this with prothioconazole or tebuconazole depending on risk at green bud. Prothioconazole also helps to boost LLS and *Alternaria* control.

"The biggest concern is the length of the flowering period, especially if it is prolonged as fungicides will only give three weeks protection against *Sclerotinia*. Therefore, dose and timing are so important. A yellow bud spray will start the protection and allow a well timed mid-flowering spray to complete the cover," he advises.

So for Mr Cook he still expects much of his OSR area to deliver respectable returns this season despite the price downturn, "As the crops are all well established and canopy structures are looking good. Perhaps we are in a more favourable situation with pests and disease this season. The trick now is to make the most of the agronomic toolbox to deliver the most cost effective solution."

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CONSTRUCT COMPREHENSIVE T1 *growers advised*

With *Septoria* and yellow rust again dominating early season disease discussion, growers are being reminded not to lose sight of the bigger picture.

AICC agronomist **Sean Sparling** says *Septoria* and yellow rust rightly dominate disease control strategies but points out that it shouldn't come at the expense of comprehensive disease control. "The stem-based complex doesn't carry the same threat but it doesn't mean it should be overlooked. Mildew, eyespot and stem-based *Fusaria* still need to be managed."

Only the weather will determine how the risk develops but Mr Sparling says it is always part of his T1 strategy. "You have to think of eyespot at the T1 timing. Get beyond GS32 and there's no real control option. If it turns out to be an eyespot season and you haven't had the protection of an effective T1 then there is little you can do.

"In this part of the world we've only had 53mm rain in January and February but we had a mild, late autumn and the combination of early drilling and soil moisture means we could see it this season," he warns.

When it comes to eyespot for Mr Sparling it has to be a prothioconazole base or full rate of Tracker. Either is fine but he is likely to favour the prothioconazole route this season. That's more to do with *Septoria* than the stem-based complex. "There's plenty of inoculum kicking around and the disease is proving rather belligerent of late. We saw last year that you just cannot afford to get *Septoria* control wrong and prothioconazole has the slight edge when it comes to the disease.

It's additional *Fusaria* suppression is also an asset against mycotoxins too."

It is a view echoed by **Fera's Phil Jennings**. Fera and HAUC research has consistently shown enhanced *Fusarium* ear blight (FEB) control from using prothioconazole ahead of the T3 spray. "The T3 is the key control timing but prothioconazole at the T1 or T2 does reduce further final levels of *Fusarium* on the ear."

If you get your T0 right then azole + CTL offers similar performance to azole + SDHI in protectant situations

As with eyespot it's about risk management. "The T3 window can be narrow and you only need to be out by a few days and you see a big fall off in control. Miss it and there's no real curative option," he adds.

Another similarity with eyespot is the fluctuating nature of the risk. Humid weather around flowering is the greatest threat but Dr Jennings says there have been step changes since 1998 and 2007. "We are unlikely to go back to pre-epidemic levels but the risk is heavily dependent on the weather. However, we also have to remember that it isn't just a mycotoxin issue. With seven species each has a different risk. *Microdochium* doesn't pose a mycotoxin risk but can rob you of 10% of your yield," he notes.

With its *Septoria* and stem-based activity

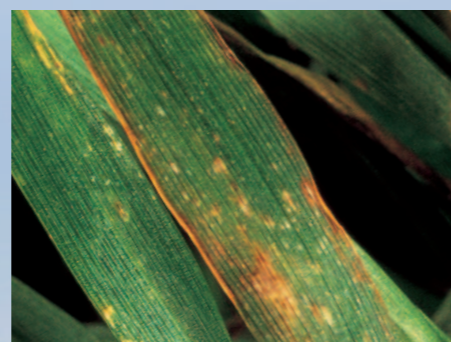
prothioconazole is an ideal T1 choice but what do you partner with it? Many might automatically look to an SDHI but **Bayer CropScience commercial technical manager Sean MacGill** says azole + CTL is working as well as anything in preventative situations. "If your T0 has been compromised then you're likely to need the curative properties of a product like Aviator²³⁵_{xpro}.

"However, what our data shows is that if you get your T0 right then azole + CTL offers similar performance to azole + SDHI in protectant situations. In our trials we saw no discernible difference between Proline²⁷⁵ + CTL to Aviator²³⁵_{xpro} in such situations."

He also suggests it is proof that we haven't seen a further significant shift in azole sensitivity since 2012. "I think a further slide and we wouldn't have seen these results. At some sites we had exceptional *Septoria* pressure last season.

"We're still seeing Proline²⁷⁵ still giving 60% control of *Septoria* providing it is used at a ¾ rate. Add in CTL and used sensibly in programmes and that increases to around 85%, about what you can expect from an SDHI.

"Given that you're getting *Septoria*, yellow rust and stem-based control without the need to upgrade to premium SDHIs, Proline²⁷⁵ + CTL is excellent value if you are in a protective situation."



Hat Trick of diseases to hit barley

***Rhynchosporium* is likely to feature heavily this season given the high levels in susceptible varieties last year and the mild autumn.** Net blotch and mildew are also present at low levels having clung on through recent colder spells of weather.

In some parts the cooler weather may have checked disease but generally it has been another winter of clement weather with few frosts. "Recent colder snaps have done a lot to reduce the early disease that

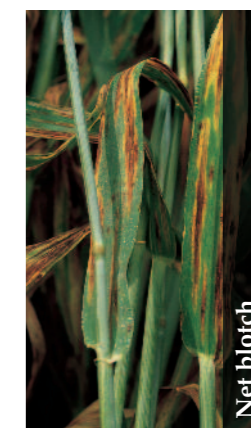
was present in crops in the autumn but low levels are still clinging on crops and will pop out again as conditions warm," says SRUC crop protection leader Dr Fiona Burnett.

With *Rhynchosporium* control likely to be essential for T1 sprays she says that SDHIs and strobbs are both still active partnered with an azole - ideally prothioconazole. "It's by far the strongest barley azole in the box.

"The choice really comes down to how

severe the pressure is. Your most broad spectrum option is an SDHI + prothioconazole mix such as Siltra_{xpro} and with T1 being the most responsive timing then it would be a good choice. Yield responses can be over 1.0t/ha in high pressure situations.

"However, azole + strob combinations still give good control and offer activity against *Rhynchosporium* and rusts. Chlorothalonil will also help boost control."



The loss of azole curative performance has seen the disease control spotlight increasingly turn to the importance of timing. With the slide effectively narrowing spray windows, growers no longer have the luxury of some leeway. If we are to see optimum fungicide performance in the future then it will only come from accurate application of actives on the target leaf.

To assist growers in identifying key timings, Bayer CropScience is engaged in an exciting new initiative and installed 'plot cams' at two of its trial sites - one in the East Anglian heartland, the other at a high risk *Septoria* site in Herefordshire.

The cameras focus on treated and untreated plots of winter wheat at both locations and are programmed to send live images directly to the Bayer CropScience

website every 10 minutes during the day. Growers can visit the website anytime during the season to see realtime development of the crops; whether it's the onset of disease, the emergence of leaf three or the flag leaf, right through to the ear and final yield building. In addition, timelapse films will also be created to show the crop's progress during the season.

As part of the initiative, Bayer's Technical Managers will be closely monitoring the crops and using Twitter to alert growers of key developments; bringing on-line commentary of the season direct to the grower.

Bayer hopes that by publishing this live feed, growers will be better informed when it comes to identifying key timings in their own wheat crops to help them manage disease and maximise yields this season.



If you want to follow the crops visit Bayercropscience.co.uk/timelapse where you'll see the cameras in action. You can also get updates by following us on Twitter @Bayer4cropsUK or comment on the pictures by using #CropCams15.