Join us at the Bayer CropScience Field Days 2015

We invite you to join us and have the opportunity to compare winter wheat varieties and judge the effectiveness of fungicide programmes at this year's Bayer CropScience trials demonstration days around the country.

At each site we'll be measuring the performance of over 30 wheat varieties in both treated and untreated plots.

Results from last year's programme showed that to some extent at least, varietal resistance was the driver in the performance of varieties, with some of the higher yielding varieties with lower disease ratings unable to live up to their Recommended List yield rating even when treated with a well timed programme.

The trial plots did however also reveal the value of fungicides with the average response to a standard four spray programme being over 4.5 t/ha.

So why not visit one of our Bayer Field Days where you'll be able to discuss a wide range of topics with particular emphasis on cereal grass-weed control and variety fungicides.

To register your interest visit our website **www.bayercropscience.co.uk/bayerfielddays** or contact Bayer Assist on **0845 6092266** or **01223 226644.**

All open days are registered by BASIS & NRoSO.

NEW-LOOK Bayer CropScience stand takes crop approach

A new-look Bayer CropScience stand at Cereals 2015 will give growers the opportunity to talk through their toughest agronomic challenges in each crop.

Plots will be split into wheat, barley, oilseed rape and root crops, with Bayer CropScience experts available to discuss the issues growers are facing in each crop, and help pinpoint strategies that will help increase or protect yields and quality.

We look forward to seeing you on the Bayer CropScience stand **605** - 10-11th June.

cereals
The Arable Event

Visit **www.bayercropscience.co.uk** for more advice on effective wheat, barley and OSR disease control and information to help you make informed decisions on product choice.

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June 2015

Crop Focus

A return to a Favourable *Fusaria* season?

It's the weather at flowering that ultimately determines the *Fusarium* risk but that severity can be heightened by the right conditions beforehand.

Last season *Fusarium* levels were relatively low. The weather at flowering wasn't favourable for the toxin producing species and Fera sampling showed that most crops were infected with *Microdochium*. Indeed it was the third highest season on record for this particular *Fusaria* species.

The situation last season just highlights the difficulty in predicting what threat we face. As one threat disappears another emerges. To give us a steer this season we asked *Fusaria* expert Dr Phil Jennings of Fera for an update.

Again he has concerns ahead of the flowering period. On the recent second leg of the CropDoctor tour Dr Jennings noted considerable stem based browning. He put that down to the dry conditions during April.

Much of that was down to *Microdochium,* a non toxin species but one that can take the shine off yields. "It is not as damaging as *F. culmorum or F. graminearum* but trials have shown yield losses of up to 13%."

He points to less carryover following lower levels of *F. culmorum or F. graminearum,* which you would think is good news. But again the weather has played its part. The wetter conditions of May will favour *F graminearum*. "Spore production is dependent on moisture. It drives the threat as perithecia (fruiting bodies) which contain ascospores, requires moisture to fully mature. *F. culmorum* also prefers such conditions at this time of year," he notes.

Another concern with *F. graminearum* is that it is wind borne. This means it can spread much further, and result in a higher toxin risk. *F. culmorum* is rain spread so of the two *F. graminearum* is possibly the greater risk. It's why we see *F. graminearum* produce a higher toxin threat from the same amount of inoculum."

When it comes to control Dr Jennings favours prothioconazole. He points out that many azoles do offer *Fusaria* activity but it is activity against the main *Fusarium* ear blight pathogens that's important. "If you are looking for an effective *Fusaria* control programme, build one that is active against both the toxin and non-toxin producing species," he cautions.

But he warns that rates and timing are important too. "The window is narrow, typically just a few days at early flowering. Miss it and control will be compromised. Also I would urge that prothioconazole is used at the 150g/ha rate, regardless of whether it has a mix partner or not."

This view is endorsed by Hampshire Arable Systems partner Steve Cook. Mr Cook manages around 4,000 ha of winter wheat in Hampshire and surrounding counties, much of which is bound for premium markets. For him it is about risk management. "These premiums can be worth as much as £20/t. You cannot afford to take a chance."

Taking no chances often means prothioconazole being the base for T1 or T2 sprays to aid *Fusaria* suppression. This will be followed by robust rates at T3. He says you only need to look at 2012 to see the value in such strategies. "In that season we saw the perfect storm'. Warm dry weather in the spring followed a mild winter, then the heavens opened. The weather had done little to check inoculum on crop debris and then the constant downpours delivered the ideal conditions for perithecia development.

"As a result not only did we have mycotoxin-forming *F. graminearum* but also a *Microdochium* epidemic. Almost every wheat ear, in untreated or badly timed situations was infected and it took out about half of the ear in many cases. This, coupled with the lack of sunlight, really hit specific weights and yields.

"Of course you can do little about the weather but you can try and guard against it. If the *Fusaria* risk does develop then a robust treatment is essential," he notes.

Bayer CropScience Commercial Technical Manager Tim Nicholson is another who questions the wisdom in taking a chance. However, his point isn't just *Fusaria* control but foliar activity too. "Only prothioconazole is active against all *Fusaria* species and there's a wealth of data to show how good it is. But the T3 is also a foliar top up, and for the key yield robbing foliar disease *Septoria,* there isn't a better azole."

> "If you want peace of mind then there's no better proven T3 choice than prothioconazole,"

Bold Grain benefits from programme effectivenes

***Rhynchosporium* and *Ramularia* aren't the only reason why McCreath Simpson & Prentice director David Cairns is urging growers to maintain robust disease control strategies. There's a benefit with grain quality too.**

The company has been analysing samples and found that those grains coming from crops treated with the most effective fungicide programmes were of a superior quality. "There's clearly a link between fungicide programme and grain quality. Where robust disease control strategies are employed so we see bigger, bolder grain. Grain analyses is ongoing but I believe it is due to the fact that the plant is putting its energy into grain sites over fighting disease."

With winter crops having been checked by the cooler conditions, slowing soil temperatures and N take up, and feed prices having slipped does it mean 'best practice' is reserved for distilling market bound crops only? Mr Cairns says no. "You can't replace lost tillers so the aim now has to be to maximise grain sites. But you won't do that if you cut back on crop investment and these winter crops could easily recover to produce decent yield and grain quality.

"The difference in price between the malting and feed markets can be as high as £40/t in some seasons. But even for grain destined for feed markets the way to beat depressed prices is to grow as much of it as you can," he notes.

That cooler weather has seen the mildew threat largely disappear and rusts haven't materialised so far. It's another reason growers might be tempted to cut back on crop inputs this spring. But again that message is don't. 'Our biggest threats are still to come. Wet weather diseases such as *Ramularia* and *Rhynchosporium* could easily strike. Work by SRUC has identified that *Ramularia* only needs leaf wetness to trigger an infection, which could be through dew rather than rainfall. Just because disease levels haven't materialised to the extent we first feared earlier in the season doesn't mean it is plain sailing from here on in."

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There's another reason to adhere to best practice as well, and that is to protect prothioconazole. "We are fortunate in barley that strobs, cyprodinil and multi-sites are not 'single disease' solution products. In barley they have broader spectrum activity. But whatever you use it has to be in partnership with our most active azole, prothioconazole. Using robust rates of prothioconazole with alternative modes of action will help preserve this important chemistry.

"Their activity also allows us to reserve our most potent weapon, Siltra$_{Xpro}$ where disease pressure is most intense or at the most responsive spring and winter crop fungicide timings. T2 applications for spring crops might be particularly beneficial this season as the weather turned in time to help spring plantings."

Contract Security The safer bet

Don't take chances on the open market. That's Mr Cairns advice with growers looking to optimise return and offset risk. He accepts that the spot market does provide an opportunity to take advantage of price spikes but that contract advantages outweigh this. "There's security in knowing where your market is and the spec needed. It provides a base to work from."

He also acknowledges that hitting malting or distilling specs isn't always easy but again he comes back to that base. "Various contracts are available that suit a grower's ability to hit spec and their attitude to risk. Any contract is a firmer base than the risk of the open market. It's all too easy to end up with a crop and no home for it."