Cereal resistance tools – use them

Protection for chemistry essential now

Protect your cereal crops with multi-site chemistry. PHOTO SUPPLIED

The need to safeguard people, the environment, and what we grow, is widely acknowledged, but crop protection company ADAMA NZ says the cereal industry must go even further if it is to continue to thrive.

Recent experience in the UK and Europe, and lately in New Zealand, has highlighted the increasing susceptibility of the single-site chemistry that the industry has relied on for generations.

For many years, single-sites worked very effectively.

However, due to resistance development efficacy of some products has begun to decline, in some cases dramatically.

The result is that yields are at risk and existing and new single-site chemistry must be protected to prevent fungi getting the upper hand.

ADAMA has been at the forefront of sharing global data and experience, in addition to delivering leading-edge multi-site chemistry, as part of the battle against Septoria tritici (speckled leaf blotch) and Ramularia resistance.

David MacGibbon, ADAMA NZ's CEO, says protecting existing chemistry is not only an imperative for the cereal industry as a whole, but also for individual growers.

Multi-site fungicides, he explains, have an essential part to play.

"If we'd ever needed a heads-up, it's here.

"We need to be really smart about protecting the existing chemistry we have and the new chemistry that's evolving or in the pipeline.

"As an industry we need to be proactively stewarding that chemistry, and our crops, by working closely with agronomists and industry specialists."

One of the in-the-paddock challenges of resistance is that it is often not evident in a wheat or barley crop until it is too late to address the issue.

"You really have to assume that it's already there.

"Preventative beats curative, there's no doubt about it."

David says. "And your programme should always begin with that conversation with your agronomist while keeping in mind the paddock's history.

"Some people still have an attitude that they can't go wrong sticking to the 'tried and true', but that may not cut it anymore.

"People who have experienced the impact of resistance have certainly learnt a very hard lesson.

"Up to 30 per cent off a barley yield is fairly hard to take on the chin."

> **"Recent experience in the UK and Europe, and lately in New Zealand, has highlighted the increasing susceptibility of single-site chemistry.**

None-the-less, it could have been worse.

And, in the Northern Hemisphere, it is.

Seasoned experts have even gone so far as to describe the current situation there as "alarming".

There is some history behind that.

The UK and Europe have experienced resistance well ahead of New Zealand.

But through the commitment of companies including ADAMA that know-how was able to be shared, to this country's cereal growers' ultimate advantage.

David says he vividly remembers the very early warning signs.

"Back in 1999 when Strobilurins were being launched here, that's when we heard the first reports of fungicide resistance from Germany."

It was more than a decade later that New Zealand saw the impact.

"It's definitely severe in the UK now, but fortunately we're not there yet," David says.

"We still have a lot of really good tools at our disposal, which we can and should use.

"It's all about carefully planned chemistry programmes."

David says detailed recent scientific studies have established that the UK and Europe are now seeing decreasing sensitivity.

The same studies also highlighted the serious economic consequences for the industry in New Zealand should resistance become more prevalent here.

If there is a shining light however, David says, that is the success of multi-site fungicide Phoenix® against resistance from both Ramularia and Septoria.

Folpet, which is the active ingredient in Phoenix (Phthalimide – Group M4), works against Ramularia and Septoria at a cellular level using a multi-site action.

This inhibits spore germination and cell division, and reduces energy production in the mitochondria.

There is currently no known resistance to folpet anywhere in the world.

Folpet has the additional benefit of not inhibiting DMI uptake, ensuring their speed of action and efficacy.

ADAMA's recommendation is to partner Phoenix with Bolide® or other triazole chemistry as an excellent solution for Septoria and Ramularia control.

Bolide is an all-rounder DMI fungicide, featuring an innovative combination of epoxiconazole and prochloraz.

It is taken up via the stem and foliage and translocated upwards and outwards, providing some protection for new growth.

New Zealand trials with Bolide have shown outstanding control for a wide range of diseases comparable to industry standard DMIs and SDHIs, including highly effective Septoria and Ramularia control.

This performance is strengthened even more when Bolide is tank-mixed with Phoenix.

Timing though is everything, ADAMA emphasises.

Phoenix is ideally used at T1 for Septoria control in wheat as keeping leaf 3 clean is essential for maintaining full yield potential as the crop reaches maturity.

If only one spray of Phoenix is being applied in barley, then T2 is the optimum timing for it.

This ensures that leaves 2 and 3 are protected.

For best results though, a programmed approach suggests even higher levels of Ramularia control when using Phoenix at both T1 and at T2.

For more information on how to future proof your resistance management strategy with ADAMA products, contact your local technical advisor or visit www.adama.com

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