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cultivate

FARMING INSIGHTS, REAL RESULTS

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Welcome

Every year, Bayer looks forward to partnering with Australia's broadacre farmers and bringing them innovations and solutions that can help them farm better for this season and beyond.

One exciting innovation from Bayer this year is in the area of disease control, as we launch our new foliar fungicide, Aviator® Xpro®.

The 2016 season was one of the most difficult for crop diseases, which impacted production in various areas and placed pressure on fungicide product supplies. Current conditions and rotations are more varied across the regions this year, which will bring different challenges and risks to farm businesses.

Aviator Xpro offers a new mode of action, which will play an important role in assisting resistance management programs. It is currently registered for blackleg and sclerotinia control in canola and ascochyta blight in chickpeas. We are confident other crops will be added to the label for the 2018 season.

Aviator Xpro will set a new benchmark in disease control for growers, as has already been indicated in trials against leading fungicides over recent seasons. In this edition of *Cultivate*, we talk with agronomists and growers in Victoria, South Australia and Western Australia who had first-hand experience with Aviator Xpro last year.

We also continue our focus with growers who are finding new ways to fight ongoing weed battles like annual ryegrass resistance and wild radish.

As a global, innovation-driven life sciences company, Bayer strives to help growers make better decisions for a sustainable future. Together with farmers, we are harnessing our strengths in sustainability to contribute to the future growth of farming across Australia. Through *Cultivate*, we aim to share real insights and success stories with growers, enabling them to make better on-farm decisions that drive positive outcomes.

The team at Bayer wish all farmers a very productive 2017 season.

Tobias Marchand
Managing Director

COVER: Agronomist with Landmark Donald in Victoria and local farmer Heath Griffiths, pictured inspecting crop maturity with Bayer Commercial Sales Representative Paul Crack last harvest. *Cultivate* recently caught up with Heath to discuss how he is managing herbicide resistant weeds on his property.

See story page 13

About Bayer

Bayer is an international life science company offering innovative products that serve the health of humans, plants and animals. With core competencies in the areas of health care and agriculture, we take on two of the greatest challenges of the 21st century: The health and the nutrition of the growing population.

Fulfilling the demand for quality, nutritious food for all depends on visionary thinking, courage and creativity. At Bayer, our spirit of innovation and curiosity means we are always looking to develop more advanced solutions to meet these future challenges.

On and off the farm, we work closely with our customers, our business and research partners and the wider community to improve the security of our food and fibre supplies and our overall quality of life. This great tradition is also our commitment to the future – entirely in line with our mission: Science For A Better Life.

We have been investing in Australian agriculture for almost 100 years, supplying leading brands backed by expert advice in the areas of seeds and plant biotechnology, crop protection and non-agricultural pest control. For every $10 spent on our products, more than $1 goes towards creating even better products for our customers.

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New fungicide excels under high pressure

Mark Harmer, who farms at Dookie in northern Victoria, describes himself as an “aggressive weed manager”, and his approach to trialling other new products and systems is not much different. ‘Harmer Farms’ is a family partnership, consisting of a 1,400-hectare cropping rotation comprising cereals, pulses and oil seeds.

“I think for most farmers, weeds and weed resistance are their biggest issues and I really think we’re on top of that pretty well. We’ve been very aggressive weed managers for a long time,” Mark says.

“We make sure we’re continually rotating our chemistry and not falling into any of those traps, an approach which we think gives us more flexibility, more options in our system.”

In recent years, sclerotinia has become an issue in the district, prompting Mark to turn to Prosaro 420 SC foliar fungicide. “The last few years we’ve put Prosaro out as a blanket application across our canola, as we’ve just seen too much damage from sclerotinia,” he says.

“One application of Prosaro is always included in our plans, and in fact it’s got to the stage where we’re now including two applications, which has resulted in increased canola yields of up to 400 kilograms/ha.”

Bayer Commercial Sales Representative, Wes Amor, says the impact of sclerotinia has increased across the district.

“Over the last six years sclerotinia has just exploded, to the point where you can have up to 50% yield reduction. It’s pretty much standard practice now for farmers to be spraying for sclerotinia in canola,” he says.

Finding the best chemistry to manage sclerotinia is an ongoing process, which is why Mark worked with Bayer during the 2016 season to trial its new fungicide, Aviator Xpro.

“We wanted to look at Aviator Xpro against the current commercial standard, which is Prosaro, assessing which treatments provided an economic benefit and superior control of sclerotinia in canola,” Wes says.

“We were also looking at one versus two sprays of each product. We generally think Prosaro gives up to three weeks protection and we were hoping Aviator Xpro was going to give a longer length of control under the prevailing conditions – and potentially not need a second spray compared to Prosaro.”

Wes’ early assessment of the trial site in September showed Aviator Xpro single spray treated plants had 16% sclerotinia infection and Prosaro single spray treatments had 23% infection. A follow-up assessment in October showed the effectiveness of Prosaro in the single spray treatments had diminished, registering 63% sclerotinia infection, while Aviator Xpro single spray treatments were still giving good control, with only 20% infection.

“In the one spray programs, the sclerotinia counts showed Aviator Xpro clearly gave longer protection, while another infection of sclerotinia after the initial application helped demonstrate that the two sprays of Prosaro and the two sprays of Aviator Xpro kept the crop very clean,” Wes says.

“The trial showed me that in a normal year, Aviator Xpro will give you an effective one spray program, while in a wet year, growers will need to back up with a second spray.

“In a canola paddock with really good yield potential, Aviator Xpro would be the product I’d go with.”

Mark was similarly impressed with the trial results, agreeing that Aviator Xpro gave the best result

“Between one spray of Aviator Xpro and one spray of Prosaro, there was around a 349 kg/ha yield difference in favour of Aviator Xpro, so they were definitely significant results,” he says. While the key outcome of the trial was the excellent performance of Aviator Xpro in a single spray program, Mark says two applications worked even better in what was a wet year.

“As a rule, I’d say if you can afford to do it, two Aviator Xpro applications would be fantastic, but whether that’s going to be an economic reality is another question.”

“My feeling is, depending on the season, we’ll probably go with an Aviator Xpro first as our mainstay protection.

“I’m thinking the second spray application would then be Prosaro, and we will adjust the rate depending on weather conditions and the yield potential of the paddock.”

Northern Victorian grower Mark Harmer (right), Dookie, pictured with Bayer Commercial Sales Representative Wes Amor, says aggressive weed management has helped to keep on top of weeds and herbicide resistance on the family’s farm. Sclerotinia has also been a major disease in canola in the region and after applying up to two applications of Prosaro foliar fungicide to combat it previously, Mark anticipates applying the new product, Aviator Xpro, this season, possibly followed by an application of Prosaro if required.

YIELD INCREASE

He says the yield results from the trial backed up the impact of a second fungicide spray in a wet year.

“There was nearly a tonne per hectare yield increase from one application of Prosaro to two applications of Prosaro, while there was a 700 kg/ha yield increase from one application of Aviator Xpro to two applications of Aviator Xpro.”

Mark says it’s not just the longer control period and yield results that have swayed him in favour of Aviator Xpro as a first up sclerotinia spray, with the rainfastness of the product also impressing.

“Aviator Xpro is very good to use, particularly with the effect of the LeafShield™ formulation technology, allowing the product to rapidly dry on the leaf. It’s awesome – literally spray it on the plant and you can just see it’s got that coverage on it straight away,” he says.

Wes says the LeafShield technology has impressed in trials, particularly in a wet year like last year, when spraying windows were limited.

“The LeafShield technology will enable Aviator Xpro to get into the plant quicker than Prosaro does, so when farmers only have a small window of suitable application conditions, the rainfastness of Aviator Xpro is clearly a really big benefit for growers.”

He says the reputation of Harmer Farms for being proactive in trialling new chemistry and cropping systems was obvious in the way Mark ran the Aviator Xpro trial in 2016.

“It’s not often you get growers that ring you up to talk about trial work, and with as much excitement and passion as Mark had. It was fantastic – he’s a really good operator.”

Wild radish concerns in WA's south-east

OPPOSITE PAGE: Senior Agronomist with Farm and General at Esperance in Western Australia, Andrew Heinrich, pictured with the business' spray application trailer, says herbicide resistance in wild radish is becoming a concern in the Esperance region.

Farmers in the Esperance region of Western Australia are being urged to be mindful of developing herbicide resistance in wild radish.

Last season a trial run by Farm and General assessed different herbicides and mixes for effective wild radish control and found evidence of developing resistance in the area.

Farm and General senior agronomists Andrew Heinrich and Monica Field conducted the trial, supported by Bayer, with help from Bayer customer advisory representatives Craig White and Rick Horbury.

According to Andrew, the trial site at Nerridup had a history of wild radish problems and they suspected a level of phenoxy tolerance was present in the population.

PROBLEM PADDOCK

"It's been a problem paddock for a while and the radish population is quite large, so we were looking for options to control it in the cropping phase," Andrew said.

"The paddock comprised non-wetting sandy soils and it was important for us to get residual control of subsequent germinations.

"Previously we have relied on 2,4-D or MCPA LVE for controlling wild radish, without getting satisfactory results."

Using a spray trailer similar to Bayer's Applicator Trailer, Andrew said they applied herbicide products and mixes including Velocity®, Precept®, MCPA LVE, Tigrex®, Jaguar®, MCPA LVE/Logran®, Flight®, Velocity/MCPA LVE, Velocity/Tigrex, Precept/Jaguar and Precept/metribuzin.

"Velocity and Precept products achieved much better control, while having something like Tigrex, Jaguar or other products containing diflufenican, was good value as the residual control picked up subsequent germinations before they became a problem."

Andrew Heinrich, Farm and General Senior Agronomist in Esperance, WA

The wet start to the season ensured a good germination of wild radish. Andrew said the conditions meant it was likely seeds emerged from the seed bank that had been dormant for a long time.

The paddock was sown with Mace wheat, which was at five-leaf to early tillering at the time of application, with the wild radish population measured at an average 30 plants per square metre, ranging in development stage from cotyledons up to eight-leaf stage.

"We use a spray trailer based on the Bayer Application Trailer, which allows us to mix up to nine different treatments and spray out a combination of three at one time," Andrew said.

"So we can lay-out trials relatively simply and quickly.

"With this trial, we looked at the knockdown and scored the applications out to 65 days, although we didn't take the individual plots through to yield.

"We stayed at the top end of application rates and as we suspected MCPA tolerance, we went in at 1.5 L/ha, which is a lot higher rate than most farmers would be using.

"All the treatments gave us good to excellent control.

"Most of the mixes gave a good burn down of existing radish, particularly Precept and Velocity, which had good coverage of the leaves."

Precept, from Bayer, uses a combination of pyrasulfotole and MCPA LVE, with pyrasulfotole being the only Group H active ingredient currently registered for use in cereals.

It controls a wide range of broadleaf weeds and is effective against wild radish resistant to Group B, C and F herbicides.

Velocity, also from Bayer, uses the active ingredients pyrasulfotole and bromoxynil and is registered for use in wheat, barley, triticale and cereal rye.

It can be applied from the two-leaf through to fully tillered stages and is effective against broadleaf weeds that have developed resistance to herbicides containing Group B, F or I active ingredients, such as metsulfuron, diflufenican, MCPA, 2,4-D and others.

As suspected, Andrew said their fears were confirmed when it came to the results from the MCPA LVE application.

"MCPA LVE showed some survivors 28 days after application. We saw a slightly better result with the MCPA/Logran mix, but there were still some surviving plants," Andrew said.

"So, as suspected, there is some tolerance in the population.

"Velocity and Precept products achieved much better control, while having something like Tigrex, Jaguar or other products containing diflufenican, was good value as the residual control picked up subsequent germinations before they became a problem."

OPTIONS

While they didn't assess the yield results, Andrew said what they did find was that there were still plenty of effective options for growers when it came to wild radish control.

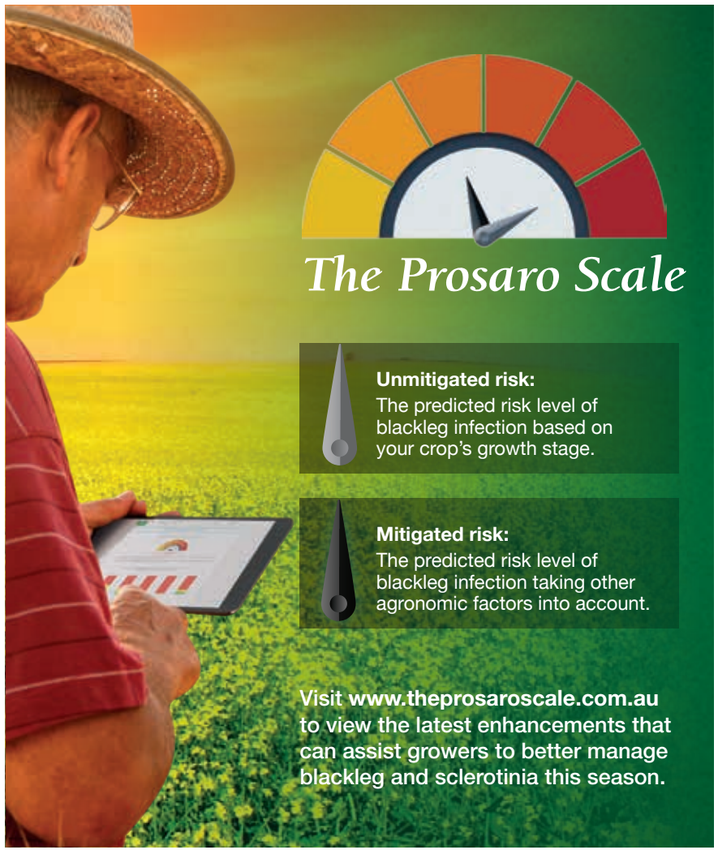
Given that fact, he said there was no need to keep relying on the same modes of action and risk developing resistance.

"We want growers to be mindful of resistance and pay attention to the level of control they are actually getting from their current herbicides," he said.

"Just because you can't see radish popping out the top of the crop, doesn't mean it hasn't managed to set some seed.

"What we find is that when you get those early stages of tolerance developing, the plant survives and manages to set seed every year, building up the seed bank."

Enhanced Prosaro Scale better predicts disease



The free online fungal disease prediction tool, the Prosaro Scale, has undergone further enhancements to help predict blackleg spore showers and sclerotinia disease for canola growers.

Upon visiting **www.theprosaroscale.com.au** growers enter their post code and select sclerotinia (including the paddock's canola rotation) or blackleg from a drop down box to view a calculated risk output for the area over the previous four weeks. Growers can also set up the website as a bookmark on their phone.

For sclerotinia, a threshold of 18 indicates infection is highly likely to occur.

The latest enhancements to the Prosaro Scale allow growers to better predict the likelihood of high disease pressure in their locations. In turn, they have the opportunity to proactively treat their crops prior to a spore shower occurring.

For sclerotinia, the latest enhancement to the tool utilises the future temperature forecast to predict disease outbreak.

Previously, this was based on an "up-to-the-minute" temperature analysis (for example, "your area is currently in a high risk disease state").

The new enhancement allows farmers to predict the likely disease pressure in 48 hours, allowing them to take action sooner to spray their crops.

For blackleg, the latest improvement takes into account the variable key growth stages (during which the crop is susceptible), variety genetic blackleg resistance ratings and other agronomic inputs, such as fungicide treatments to provide a more accurate picture of the likely disease pressure within that area.

Meanwhile, the Prosaro Scale website has also been redesigned to ensure a more seamless, user-friendly experience.

The updated blackleg model is now live and the enhanced sclerotinia model will follow in time for the sclerotinia season.

PROACTIVE FARMING

Calculated moves for optimum results

The reliability of an area, current conditions and understanding of seasonal risks are just some of the factors that influence early crop management decision-making for Australian farmers. But today's growers make more calculated decisions and adopt a proactive approach to better optimise their production and operations. Cultivate spoke with two growers on the western side of the country prior to the 2017 season in March to understand some of the influences on their cropping decisions.

Tom Smith, at Northam in Western Australia's Avon Valley, firstly recalled the big change from the days of combines and full cut points, but he says his family is now a lot more confident to sow early.

"These days, we are probably copying eastern wheatbelt mentality," Tom says.

The family's 'Mount Joy' farming properties received about 300 mm of steady summer rainfall this year.

With a strong moisture profile, it meant they could seed canola on 5 mm of rainfall from early April, otherwise they were planning to stick with their traditional starting date of Anzac Day, with wheat sown in early May and export oaten hay in late May.

"We go late May with the oats because we want the hay ready to cut in early to mid-October, not in September when there is higher risk of rain," Tom says.

"Going earlier with oats does produce massive hay crops, but you open yourself up to the weather."

If no further rainfall was received through to mid-April, the canola would have been sown deeper to chase the moisture.

Under similar circumstances with weed control, Tom says they would hold-off on the atrazine with canola. He says it would be a bit trickier with wheat, but they could still sow in early May and incorporate the pre-emergent herbicide, Sakura®.

"Pre-emergents with our wheat have provided good enough control, although wild oats could be an issue and barley grass is more of a concern in dry years."

With broadleaf weeds during the season, Tom says they always look to spray them as early as possible.

In WA's eastern wheatbelt at Mollerin, Mark Sutton says modern equipment has meant stubbles are not burnt anymore at the family's 'Dyard Farms' properties and they normally commence seeding from Anzac Day, sowing dry if necessary. Following summer rains this year however, he expected to commence in the second week of April.

"We have sown wheat in the past to chase the moisture – and in this case we would lift the sowing rate from 50 kg to 60 kg," Mark says.

The traditional seasonal break in the area occurs from May 20. "We have a rule out here that we don't continue seeding after June 10. In the last few years we have finished in the first week of June," Mark says.

"Our springs are getting shorter and we normally run out of moisture."

In terms of early weed control, he says if they are dry-sowing, they know paddocks need to be "clean".

"Out here, most of us then prefer to wait a bit for weeds during the season," Mark says.

Complete system providing control of problem weeds

From pre-emergent control of annual ryegrass to post-emergent management of wild radish, Chad Cruickshank knows he has to select the best tools to keep weeds under control in his New South Wales farming operation.

Chad runs a 1,100 ha cropping program at 'Glenelg', near Gilgandra, plus a further 600 ha of share farming country, with his rotation comprising wheat, barley, faba beans, lupins and some field peas.

Importantly, he keeps his rotations tight as a way of ensuring the chemicals he uses remain effective.

"We might grow a wheat, then maybe a faba bean, wheat, then a field pea so we don't get too far away from a pulse break," Chad says.

"We try not to use the same chemicals two years in a row and it's a system that seems to be working pretty well in keeping the country clean."

So far, he says there aren't any weed resistance problems on 'Glenelg', primarily due to those good rotation practices, but it's an area that needs constant attention.

"There are some grass weed issues we're just trying to get on top of, by getting the best knockdown possible to reduce seedset and viable plants."

Ryegrass and barley grass are particular problems for Chad, with Sakura® 850 WG, a Group K herbicide from Bayer, forming an important part of his pre-emergent spray program.

Last season the Cruickshanks applied Sakura at 118 grams/ha through a ground rig in 70 L of water in a mixture with Roundup®, before sowing wheat the following day.

"It mixed well, was easy to apply and the results were there – there were just no weeds in what was a really wet season," Chad says.

"Sakura seemed very safe on the wheat, there wasn't any yellowing and it even cleaned up areas around where old trees had been.

"We had a whitewood tree that died from kurrajong grubs, so we burnt the tree and the sheep used to camp there all the time. The sheep camp had a lot of barley grass, so we thought we'd test Sakura out to see how good it is, and it did a brilliant job taking the barley grass out."

Perhaps most telling about the performance of Sakura on 'Glenelg' in 2016 was how it handled the high weed burden in what was a very wet season.

"We've talked to older people and they hadn't seen it that wet since the fifties, so it was a phenomenal test for pre-emergent chemicals," Chad says.

"Ryegrass just keeps coming and coming and coming, and Sakura just held it back. It's kept it very clean."

The wet season also meant an ongoing battle with wild radish on their share farmed property was a particular challenge in 2016.

Having had success with Velocity® in 2015, they turned to Precept® selective herbicide last year.

"We were advised to use Precept for its effective control on the bigger plants, so we applied it at 2 L/ha with 70 L/ha of water to get good coverage through the crop canopy and onto the radish plants," Chad says.

BRILLIANT JOB

"It did a brilliant job stopping any of the bigger plants from setting seed, and it took out any wild radish at the rosette stage. They browned down really quickly.

"We were surprised by the performance of Precept, knowing that the bigger the size of the plant, the tougher it is to take out."

He says Precept showed good crop safety and mixed well. "We sprayed it with Axial® on some wild oats and as far as tank mixing goes, Precept works well.

"It's a good, easy-to-use product."

With a continuing challenge to effectively control ryegrass and wild radish, while balancing the need to protect the longevity of the valuable Sakura and Precept chemistry, Chad says he believes he has found the right system.

"We need this sort of chemistry to keep one step in front of those problem weeds and I've found a system that seems to fit very well."

New South Wales grower Chad Cruickshank, Gilgandra, says good rotation practices are keeping his paddocks clean and herbicide resistance at bay, but he knows it's an area that needs constant attention.

New weed control option in oats brings benefits

Having limited broadleaf herbicide weed control options in oat crops has not been ideal for many farmers, so when Western Australian grower Tom Smith was advised of a new solution by his local agronomist, he jumped at the chance to adopt it – and he welcomed some added benefits.

Tom, his younger brother, Matt, and sister, Grace, together with their parents, Alan and Jo, farm properties at Northam, Meckering and Toodyay. They grow wheat, export oaten hay and canola, while they also run about 3,200 ewes and 1,000 dry sheep.

The hay is directed to the local Bodiam hay and straw facility, with a large amount then consumed by the Chinese feed market. Tom said doublegee was one of their main broadleaf weed targets in oat crops, together with wild radish, and they had previously used the Group C and I herbicide, Broadside®, to combat them.

However, following advice from local Landmark Agronomist Karrie Stratford, they started applying Precept® herbicide soon after it was registered for use in oat crops.

“Broadside is a good brew, but we have had to keep rates up high and we mix it with Flexi-N® (liquid fertiliser) and it has scorched crops a bit – it has been a bit hot. Flexi-N always goes on with our broadleaf sprays at about 40-50 L/ha,” Tom said.

“We’ve also possibly had a bit of phenoxy (Group I) resistance in some weeds out at Meckering.

“We had been pushing the same old chemical for a few years. Before Precept became available for oats, just about the only thing we could use was Broadside,’”

Tom Smith, Western Australia

IMAGE BELOW:
Tom and Karrie inspect the quality of the family’s oaten hay, most of which heads to the Chinese feed market.

OPPOSITE PAGE:
Western Australian grower Tom Smith, Northam, and local Landmark Agronomist Karrie Stratford discuss the benefits of switching to Precept herbicide for controlling broadleaf weeds in the family’s oat crops.

“Karrie then introduced us to Precept.”

Precept, from Bayer, uses a combination of pyrasulfotole and MCPA LVE. The pyrasulfotole provides robust, three-way activity on broadleaf weeds, while the MCPA LVE provides the capacity to control more mature weeds and higher weed densities.

Precept is effective against wild radish resistant to Group B, C and F herbicides and it also provides excellent crop safety in oats.

“We had been pushing the same old chemical for a few years. Before Precept became available for oats, just about the only thing we could use was Broadside,” Tom said.

“The crop growth stage also had to be five-leaf for applying Broadside, whereas with Precept we can spray at three-leaf.”

Karrie said mixing up the herbicide mode of action applied, the ability to spray earlier onto smaller weeds, particularly when phenoxy resistance was suspected, and the fact Precept was “soft” on crops, including when applied with urea ammonium nitrate (UAN), were key benefits.

PRECEPT IMPRESSIVE

Tom said the weed control achieved by Precept has been impressive.

“It worked great. The paddocks were as clean as a whistle. If there was a weed around, I would tell you – it has done a really good job.”

“The weeds have been quite small when we have sprayed and we have gone with rates of around 1.1-1.4 L/ha. With Broadside, 1.4 L/ha was okay, but going down to 1 L/ha was not enough.

“The Precept worked out at about $22/ha, whereas Broadside at 1.4 L/ha was around $30/ha, so we had a $5-$10/ha saving, which is significant.”

The improved weed control has also contributed to excellent Mortlock and Williams oat crops in recent seasons.

Karrie said for broadleaf weed control in wheat crops throughout the wider region, the preference would be to use Velocity® herbicide, particularly where there are weeds with resistance to phenoxy herbicides.

Velocity is also based on pyrasulfotole and includes bromoxynil and Bayer’s crop safener, mefenpyr-diethyl.

“We believe there is more phenoxy resistance in the region than may be recognised – and there is no known resistance to HPPD inhibitors,” Karrie said.

Tom said that fortunately with hay playing a significant role in their cropping program, it had also proven to be a good tool for controlling weed seed set and they were still achieving good results from applying Jaguar / MCPA LVE for broadleaf weed control in most of their wheat crops.

On the trail of resistant weeds

Agronomist with Landmark Donald in Victoria and local farmer Heath Griffiths, pictured inspecting crop maturity with Bayer Commercial Sales Representative, Paul Crack, last harvest, says conserving moisture and managing herbicide resistant weeds are key challenges in the region.

"Sakura is a good product. The protection it's giving absolutely stands out – it's as good as any pre-emergent chemistry I've ever seen."

Heath Griffiths, Agronomist with Landmark Donald in Victoria and local farmer

A lack of moisture and managing herbicide resistant weeds are two critical challenges growers in the Victorian district of Donald need to manage well.

As an Agronomist at Landmark Donald, Heath Griffiths knows those challenges only too well, particularly as he is also a local farmer.

Heath produces wheat, barley, canola, beans, chickpeas and lentils on his 400 ha property, as well as providing agronomic advice to local farmers.

"Rainfall is a big thing here, trying to conserve as much moisture as possible, and managing resistant weeds like annual ryegrass, wild oats, wild radish and mustard," he says.

"We're trying to get on top of the rotation through chemistry, integrated weed management through narrow windrow burning and some people are also using sheep for grazing."

RESISTANCE

Heath says the resistance problems centre around ryegrass, as well as wild radish and thistles showing tolerance to Group B and Group C chemistry.

He says the impact of resistance doesn't just play out on the balance sheet in reduced yield, but also through the expenses incurred in weed control.

This means strategies need to be adopted carefully, with Sakura®, a Group K herbicide from Bayer, playing a pivotal role. "We are finding Sakura has been doing a great job on really keeping the weed numbers down and it represents different chemistry."

"We always try to put it in a tank mix with trifluralin (Group D) or triallate (Group J) for increased protection and a different mode of action, to try and increase the longevity of Sakura." Having found good length of control with Sakura of between eight and 12 weeks, depending on moisture, Heath has been impressed with the chemistry.

"It's a good product. The protection it's giving absolutely stands out – it's as good as any pre-emergent chemistry I've ever seen," he says.

"We use Sakura in a lot of our wheat especially, ideally applying and incorporating it within three days of a moderate rainfall event. This approach gives us the best control.

"Rotating into barley the following year has created a system which is going to allow us to hang onto this chemistry for a while."

The resistance issues facing Donald growers aren't contained to just ryegrass, with wild radish also causing problems.

"We've probably overused a lot of chemistry in the past – Group Bs are nearly gone on the radish and to a certain extent we're probably seeing them become tolerant to Group Is also," Heath says.

"Rotating to Velocity® (Group H & C) and Precept® (Group H & I) herbicides is giving us another string to the bow. They have been fantastic.

"Velocity especially is soft on the crop, so you can either come in early with that product, or alternatively you can use a Precept plus metribuzin (Group C) mix later, which gives us good control on big weeds as well."

He also has a keen eye on the future too, having been involved in trial work with Aviator® Xpro® fungicide from Bayer.

Registered for use in canola and chickpeas, registration for this new chemistry in other crops such as lentils and barley is expected to follow.

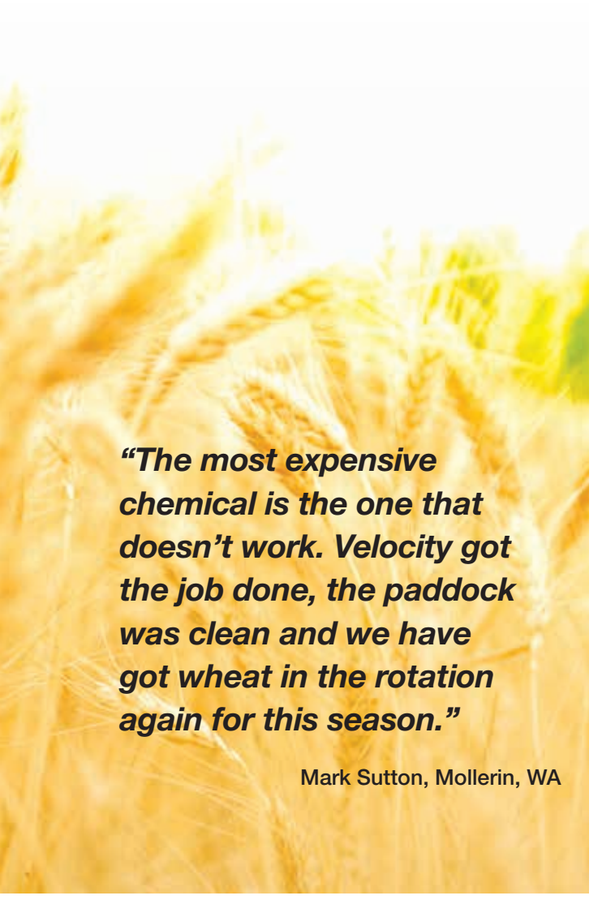
Heath says in 2016 they tested Aviator Xpro at different rates in lentils under permit to see what levels of ascochyta control it provides.

"Ascochyta was a big issue in 2016 because it was so wet. It was just so prevalent in a lot of the lentils and chickpeas."

"Aviator Xpro just looks like it might be a little bit stronger and giving us a little bit more protection than previous chemistry, with an ability to apply it quite early," he says.

Strong investment in radish control saves paddock for 2017 season

OPPOSITE: Agronomist with Landmark Mukinbudin in Western Australia, Darren Marquis, discusses some of the latest strategies for wild radish control in the eastern wheatbelt with Mollerin grower Mark Sutton.



"The most expensive chemical is the one that doesn't work. Velocity got the job done, the paddock was clean and we have got wheat in the rotation again for this season."

Mark Sutton, Mollerin, WA

Western Australian wheatbelt grower Mark Sutton was a little amazed last year that a crop largely written-off with wild radish could go on to yield higher than the farm average and allow the paddock to continue in the rotation.

Mark and his wife, Helen, operate the 10,000 ha 'Dyard Farms' property plus leased land near Mollerin in the eastern wheatbelt, cropping 8,000 ha to wheat, canola, lupins and triticale, as well as running about 500 Merino ewes.

Soils range from red loams through to Mallee and Wodjil country, and cropping rotations can include two years of cereals followed by canola or lupins, or two years of cereals before a pasture phase.

Their 200 ha "problem paddock" last year had received the standard post-emergent herbicide spray of Jaguar® at 800 mL/ha with LVE MCPA at 400 mL/ha four to five weeks after sowing.

Mark said Group I herbicides were becoming less effective against wild radish and the population was heavy in this paddock, which was sown to Calingiri noodle wheat.

"The radish was showing signs of regrowth and there was also another germination," Mark said.

"Traditionally, we would have gone to a Group I mop-up, but 'Daz' (local Landmark Agronomist Darren Marquis) knew that wouldn't work."

Darren advised Mark to apply the Group H post-emergent herbicide, Velocity®, which was sprayed prior to stem elongation at 1 L/ha via a tug-along Sonic sprayer set up with 02 nozzles. The water rate was also increased significantly to ensure excellent spray coverage.

Velocity is based on the novel active ingredient, pyrasulfotole, and also includes bromoxynil and Bayer's crop safener, mefenpyr-diethyl. The pyrasulfotole interrupts several biological processes crucial to weed growth, while the bromoxynil, which acts primarily as a contact foliar herbicide with virtually no soil residual activity, further disrupts the photosynthetic process, resulting in a unique action against weeds.

"Within days, the radish had shrivelled up just nicely," said Mark, who had previously been impressed by Velocity in a local trial in barley.

"The paddock ended up clean – it was spot-on.

"It worked out at about $30/ha. It's a bit pricey, but the most expensive chemical is the one that doesn't work. Velocity got the job done, the paddock was clean and we have got wheat in the rotation again for this season.

"If we didn't use it, the paddock wouldn't be going into wheat. "It yielded 2.1 t/ha, making the noodle grade and with good protein, and overall our paddocks yielded 1.9 t/ha.

"The radish would have cut this yield in half, we would have chucked it out and there would have been so much seedbank in the paddock for us to control.

"Velocity is a good tool in the toolbox and we will certainly look to use it for some other problem paddocks."

Darren said some growers would have hesitated at the investment and used Ester 800 or Tigrex®, but he said they were also "running out of puff".

"In the last five to 10 years, Jaguar and LVE MCPA has been the staple, but we are hitting the wall at three to four leaf with harder-to-kill radish on acid country," he said.

"For larger radish, we are snookered. Group I, C and F (herbicides) are coming under increasing pressure, so we are slowly introducing Group H, with Velocity, into the equation. Precept® herbicide is the best option for oat crops."

Trial shows options to improve wild radish control in oats

With developing herbicide resistance and limited products registered for use, controlling wild radish in oats has been challenging for Western Australian growers, but a trial in the southern wheatbelt has highlighted some new control options.

The trial, coordinated by Elders Narrogin agronomists Helen Wyatt and Brett Jenkinson, examined the efficacy of different wild radish herbicide control options in oats, as well as their crop effects.

Helen said wild radish control in oats had become more difficult with herbicide resistance, limited registered products and different target markets.

CROP PHYTOTOXICITY

She said there had been much discussion as to which products were best, the impact of crop phytotoxicity (if any) on yield and the need to rotate modes of action.

"In the past, Tigrex® has been the go-to product on grain oats and Bromicide® MA or straight LVE MCPA on hay oats to ensure colour in the final product is not compromised," Helen said.

"With newer products like Precept® now registered in oats, we thought it worthwhile investigating where they fit in the oat production system."

The selected trial site at Wandering had a radish population varying from 50 to 200 plants/m^2, with the largest at the five-leaf stage, and was sown with Bannister oats, which were at early tillering. The site was sprayed on June 15th last season using the Bayer Application Trailer with a water rate of 80 L/ha, and applications included Bromicide, Paradigm®, MCPA Amine, Flight®, Tigrex, Precept, Broadside, LVE MCPA and 2,4-D Amine applied at a later timing.

Helen said that while conditions weren't ideal when the site was sprayed, there were still some clear performers when it came to analysing the results.

"Precept was a standout product. Although very slow to control weeds early-on due to the conditions at application, it was one of the best treatments in the end," Helen said.

"The spraying was done late in the afternoon and it was quite an overcast day, which had an impact."

To maximise efficacy of Precept, it should be applied during the day, at least one hour before sunset.

"Final crop yield was highest in the Precept treatment, which also highlighted the crop safety of this newer herbicide mode of action," Helen said.

Precept, from Bayer, uses a combination of pyrasulfotole and MCPA LVE, with pyrasulfotole being the only Group H active ingredient registered for use in cereals.

It controls a wide range of broadleaf weeds and is effective against wild radish resistant to Group B, C and F herbicides.

Precept also provides excellent crop safety in oats and can be applied from the three-leaf stage through to first node of the crop.

Helen said Flight and Tigrex both had the quickest early control of the radish, but both had lower crop yields and it was difficult to determine if that was due to crop phytotoxicity.

She said both of those products contained diflufenican and showed the most crop phytotoxicity of all products used.

Broadside and Bromicide were slow to kill weeds and struggled on larger plants, which resulted in a lower overall control.

"The late 2,4-D Amine strategy is one that farmers traditionally used for late radish control when populations were only just developing, as it controlled any late germinations in the crop," Helen said.

ABOVE: Elders agronomists pictured assessing weed control in the herbicide trial in oats at Wandering, WA.

Pictured shows the control of wild radish six days after the application of Precept herbicide.

EARLY SPRAYING

"Over time and with increasing radish populations, spraying earlier has seen improved weed control and yield increases, as it removes early crop competition.

"Weed control and yield were improved compared to the untreated control using this strategy, showing a late application is better than nothing, although still not ideal.

"All earlier single treatments gave a better yield result than a single late 2, 4-D Amine application."

Herbicide resistance test kits, provided by Bayer, were used at the site and found both Group I and F resistance developing in the radish population.

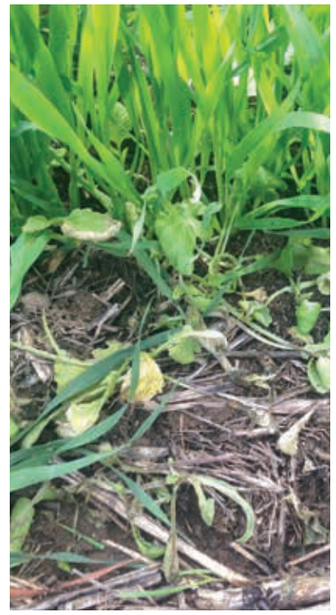
Helen said Group B resistance was not identified, but some level was assumed to be present.

She noted that during the trial, Paradigm, which uses both Group I and B modes of action, was also quite slow to kill weeds and struggled to control bigger plants, while LVE MCPA was very slow to kill larger weeds, but maintained a good crop yield.

"Given the developing Group I resistance in this location, LVE MCPA is not the preferred treatment option going forward, but the knowledge that it is still achieving some level of control will be useful in certain scenarios," Helen said.

"There's a lot of growers in this area that haven't tested their weeds for herbicide resistance and just continue to use the same control methods, but I think they would probably be surprised at the level of resistance they do have.

"Hopefully the results of this trial get growers thinking about rotating their chemistry and modes of action, and Precept is a newer herbicide that we're trying to introduce, especially given its flexibility with oats."



Pictured shows the control of wild radish 27 days after the application of Precept herbicide.

A veteran of farming solutions

Mike Clarke always planned on being involved in agriculture.

While he knew farming was not an accessible option, he opted to join the service industries to agriculture.

After graduating from university, Mike joined the Department of Agriculture Western Australia in an advisory role, where he stayed for three-and-a-half years.

He left to join Bayer (Hoechst at the time), with the original plan of staying on for three years before travelling and working overseas.

Now a Senior Development Specialist with Bayer, Mike has stayed with the company for 10 times longer than he intended.

“We have contact with overseas colleagues and travel has shown me there are many great places in the world, but none beat Australia so I have stayed,” he said.

“Our group is lucky in that a few of us have been retained for a similar length, providing stability and experience, though thankfully new people have also come into the group with different ideas.

Bayer Senior Development Specialist, Mike Clarke, originally planned to be with Bayer for three years before travelling and working overseas. More than 30 years later, he is still enjoying his time with the company and working with farmers in country Western Australia. Mike says he has always been of the view that the Bayer team is “not just here to develop a product for the company, we’re here to develop a solution for farmers”.

“A newer product like Velocity has also been a highlight for me, as I was a field project leader in its development. That’s proving to be valuable to farmers, especially with resistance to other modes of action in wild radish.”

Mike Clarke,
Senior Development Specialist with Bayer

“The way the company currently operates, Bayer’s key competitive edge is new products aided by quality staff. I am lucky in that my role varies with each new product and Bayer encourages cross functional networking.

“The company’s support and flexibility in my case meant they were willing for me to be a university lecturer for two years whilst still working for the company.”

Mike is part of the company’s development group, which focuses on generating the data required to evaluate and register new crop products other than seeds.

At the beginning of each year, a review is conducted on the previous year’s work and the team then decides what is worthwhile pursuing before designing a trial program.

Mike is based in Perth, but spends most of his time in the field from April through to October conducting trials with farmers across WA – a part of the job he particularly loves.

“After spending a few months locked away in the office over summer, it’s always good to get out in the field again,” he said.

“It can mean anything from being bitterly cold in a paddock in the early hours of winter mornings to enjoying our fantastic springs whilst recording responses from our newer products.

“I consider myself very fortunate to be able to work in beautiful country WA and farmers have a lot of input into the products we develop, by allowing us to work with them to conduct the trials.

“The thing that excites me most about my job is being able to see where the company will be in five to 10 years from now, so that when we have a difficult year or two the future prospects are drivers through those tougher periods.”

It normally takes at least five years to develop a product from the time Mike and his colleagues start working with it through to the time farmers get to use it on-farm.

HIGHLIGHTS

Given Mike has been with Bayer for more than 30 years, it’s no surprise there have been a few stand-out products he has been involved in developing.

Group A herbicide, Hoegrass®, was one of those highlights, which at the time of its release played a vital role in broadacre weed control programs.

“I was lucky enough to be involved in the development of Hoegrass, which was a very good product by itself, but it also allowed the continued expansion of minimum tillage by controlling a problem weed in that system,” he said.

“In the longer term, Hoegrass has been very beneficial to farmers, even though almost complete resistance has since developed.

“A newer product like Velocity® has also been a highlight for me, as I was a field project leader in its development.

“That’s proving to be valuable to farmers, especially with resistance to other modes of action in wild radish.

“I’ve recently spent a lot of time helping to develop Aviator® Xpro® foliar fungicide, which will now be used in many broadacre crops throughout WA, particularly by growers who have had issues with sclerotinia, which has increased in the last five years.

“Aviator Xpro offers growers another mode of action to help control sclerotinia.”

Mike said during his career, herbicide resistance had been one of the most significant challenges facing growers and the industry, but he saw it as the company’s role to develop new products to fit into that changed landscape. He said Bayer was one of few companies around the world working on new herbicides to help in the fight against herbicide resistance, dedicating substantial input of monetary and non-monetary resources into combating the issue.

“Something I’ve always had in the back of my mind, even when I first started, was that we’re not just here to develop a product for the company, we’re here to develop a solution for farmers,” he said.

Productivity gains still the focus for SA high rainfall group

Bayer Commercial Sales Representative Graham Hatcher and South Australian Agronomist Andrew Parkinson, Landmark Riverton, discuss the effectiveness of new foliar fungicide, Aviator Xpro, against ascochyta blight at the Mid North High Rainfall Zone Group's site at Navan last season.

South Australia's Mid North High Rainfall Zone Group is continuing to strive for productivity improvements for growers and one of the latest targets on the radar is improved disease management in pulse crops.

Established by Agrilink agricultural consultant Mick Faulkner, the group now comprises about 60 grower members and attracts around 100 farmers to its main annual field day in October.

The group's trial site historically moves to different locations in the area, but recently has been staged at Navan, between Riverton and Tarlee.

The average annual rainfall for the region is 524 mm, with the area around Tarlee averaging 484 mm.

Local agronomist, Andrew Parkinson, Landmark Riverton, said the group's focus was to maximise productivity in the higher rainfall areas locally, and it had recognised it "could push the envelope a little more and better maximise cropping productivity".

He said the group strives for 6-7 tonne per hectare wheat yields and 3 t/ha plus canola crops.

There is significant continuous cropping in the region, while some growers have also returned to livestock in some cases.

Andrew said a typical rotation can be a pulse or canola crop, followed by two to three cereal crops and oats as well. There is also interest in chickpeas and lentils due to the attractive prices for these pulses.

He said trials had focused on wheat, barley and canola varieties and sowing times; fertiliser rates and timing of applications; weed control; disease management; and also grain and grazing management.

"Certainly, the time of sowing by variety trials have been influential," Andrew said.

"Traditionally, the window for sowing wheat is early to mid May, but following work with HRZ (high rainfall zone) wheats, it has been shown that this can come back to April and provide longer season benefits."

In addition to machinery partners and grain marketing and seed companies, Bayer has been the group's major chemical partner.

"The group has done a lot of work with Bayer in the high rainfall region looking at pre-emergent herbicide strategies with Sakura®, as well as other pre-emergent products," Andrew said.

He said issues in the area included keeping paddocks weed-free, which was always a challenge; the area was also prone to attracting "every bug and disease under the sun"; and local growers – as was the case everywhere in Australia – were constantly seeking the break crop that would pay good money. Ascochyta blight has become increasingly prevalent in pulse crops in the area and the group worked with Bayer last season to investigate the effectiveness of its new foliar fungicide, Aviator® Xpro®, against the disease.

SIGNIFICANT DISEASE

Andrew said ascochyta blight was a significant disease in faba beans and was a huge issue in chickpeas, with all current varieties being susceptible.

"We have seen just about complete genetic resistance breakdown in chickpeas and some faba bean varieties and multiple applications of both contact and systemic fungicides have been required to keep that particular disease under control."

"This has been effective, but we are looking for new opportunities."

Aviator Xpro is expected to set a new disease control standard in canola and chickpea, and for other crops in the future. It has already been registered for blackleg and sclerotinia control in canola, as well as ascochyta blight in chickpeas. An application for registration in other crops is expected in 2017, with registration anticipated in time for the 2018 season. Always use Aviator Xpro according to the most recent registered label.

Aviator Xpro contains bixafen, a new member of the Group 7 (SDHI) fungicides, which offers a new mode of action for resistance management, as well as the proven performance of prothioconazole.

It also offers good compatibility and its patented LeafShield™ formulation system will enhance its activity against diseases. Its short rain-fast period, estimated at around 30 minutes to one hour, will be particularly beneficial for chickpea growers spraying ahead of rainfall events.

"With the expected registrations for Aviator (Xpro), one of the most important applications will be to look at early pre-canopy closure timing to prevent disease," Andrew said.

"This SDHI chemistry is very good and if we can start off our fungicide strategy with Aviator Xpro, it will give us a really good kick-start into our disease management with fungicides."
He said that in the group's small scale plot trials in pulse crops at Navan last season, Aviator Xpro "looked promising".

"Certainly in the trials run in conjunction with our local Bayer representative, we appeared to be getting better control than the standard district practice."

“I’ve been pushing resistance testing, particularly for farmers who have either bought new country, which is happening a lot at the moment, or those who have been in those really intensive rotations.”

Jeshua Smith, Agronomist at Elders Young, NSW

Weed resistance management education critical

Jeshua Smith is used to having tough conversations with local farmers around weed resistance in his job as an agronomist at Elders Young in New South Wales.

He hopes, in time, it’s a topic he won’t have to raise as often, as farmers get on top of the resistance challenge in a district dominated by wheat and canola. It’s a rotation that has taken a toll on chemistry as growers try to control annual ryegrass and wild radish.

PRESSURE

“The prevalence of these weeds in our wheat/canola rotations puts a lot of pressure on older post-emergent chemistries, and a lot of those aren’t effective anymore,” Jeshua says.

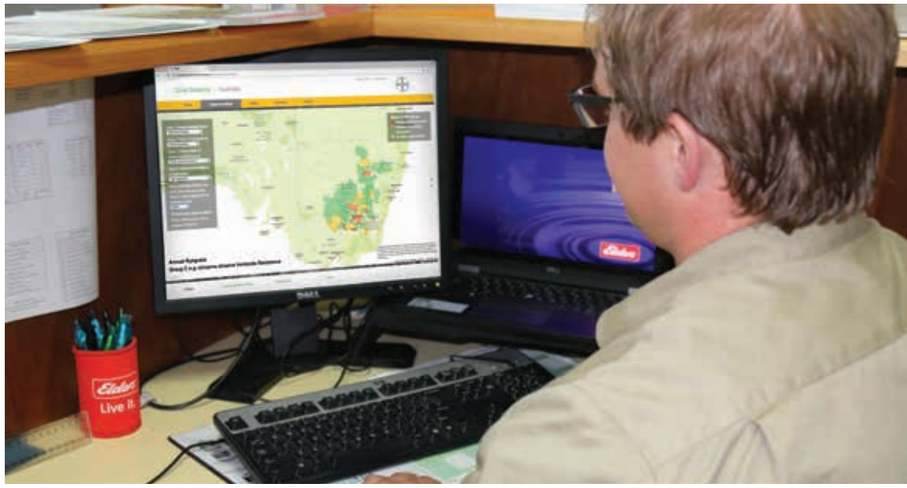
“In ryegrass, Group Bs have fallen over pretty well and so we have backed ourselves into a corner. In terms of post-emergents, we’ve really only got clethodim and butroxydim left, with clethodim being obviously the preferred option in canola.

“With pre-emergents, I haven’t come across any trifluralin resistance, but I know that with how hard it’s being pushed in the area, it’s not too far off.”

One of Jeshua’s philosophies is that the most expensive herbicide a farmer will ever use is the one that doesn’t work.

“For a farmer to spray a crop or fallow and the chemistry not to work, you’ve got the potential there for a weed blowout to occur, which means more weed seed numbers for the following years,” he says.

RIGHT: Jeshua Smith, Agronomist with Elders at Young in New South Wales, says the Diversity Can’t Wait website developed by Bayer is a valuable tool to show growers in helping them manage herbicide resistance. Jeshua says the map section shows resistance is imminent in the area.



“Research on annual ryegrass has indicated we’re able to get more than 90% germination of the seed bank within three years.

“If you’re able to stop the seeds entering that seed bank through good control, we can drive down those numbers really quickly, but if you have a blowout, you’re putting more pressure on the herbicides we have left due to increased populations.”

Jeshua says while many farmers don’t want to talk about resistance management, education is critical.

“It’s a topic that scares a lot of farmers and one of the biggest issues is a lot of the new chemistries that have some form of a unique molecule in them are all more expensive.”

“I try and explain to farmers that by bringing these new chemicals into the rotation now, long-term we’re able to utilise some of those cheaper chemistries we still have.”

DIVERSITY CAN’T WAIT

A critical tool for Jeshua in spreading the message about resistance management has been the Diversity Can’t Wait website developed by Bayer.

A valuable resource detailing the impact of chemical resistance, it includes a map section which shows how resistance has developed over time in individual districts.

“The website is really valuable to show growers, particularly those I know are going to have resistance issues because of their intensive wheat/canola rotations and the pressures we’re putting on some of the herbicides,” Jeshua says.

“I particularly use the map section to show farmers that resistance is coming. It’s imminent – for example, you can bring up results from 2010 indicating clethodim resistance in this area seven years ago, which sends a message to farmers using that intensive wheat/canola rotation.”

Continued next page

Jeshua is working hard with local growers to get on top of chemical resistance issues through a range of tactics, including resistance testing.

“I’ve been pushing resistance testing, particularly for farmers who have either bought new country, which is happening a lot at the moment, or those who have been in those really intensive rotations.”

The downfall of some older chemicals has increased the value of products such as Sakura® 850 WG herbicide, with Group K chemistry.

“Sakura has a really good fit in this area because it is so effective, particularly in our wheat.

“It’s product compatibility is also a big benefit, being able to put trifluralin in if we’ve got a slightly dry start or Avadex® if we’re chasing wild oats.”

Jeshua says it’s a similar theme with post-emergent tactics, with Precept® herbicide (Groups I and H) and Velocity® herbicide (Groups C and H) introducing new, more effective chemistry.

“We don’t have any Group C-resistant radish on the east coast that I know about yet, so we’re pretty lucky with the combination of Group C and Group H in Velocity. It’s a really good fit, particularly as an early spray, as it’s pretty safe for use from the two-leaf crop stage,” he says.

“Where we don’t have a Group I issue, Precept is also going to be a really good fit to replace Tigrex®. It’s a very handy tool to use in rotation.”

Jeshua says incorporating these kinds of products into rotations will keep costs down and rotational flexibility up for growers.

“Some growers don’t want to use something until they’re backed into a corner, which is completely the wrong line of thinking. They’re going to basically end up in a situation where they’re going to be spending a mint year-on-year to keep their crops growing.”

“Our biggest issue is educating growers about incorporating these tools strategically, so we can keep as many herbicides as we can going for as long as possible.”

The Diversity Can’t Wait website can be found at **www.diversitycantwait.com.au**

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Canola growers alerted to high sclerotinia risk

Canola sown into or nearby previous canola paddocks infected with sclerotinia and earlier sowing of longer season varieties are set to enhance disease risk for many Western Australian growers this season.

Combining high risk crop rotations with a full moisture profile and strong seasonal growth could increase the likelihood of severe sclerotinia infections again this year. Agricultural consultant in the Avon and central wheatbelt regions, Tim Boyes, agVivo, said several factors combined to produce a "perfect storm" for sclerotinia in various parts of these regions last season.

"In 2016, we had late March to early April sowings of canola, good season production potential, a prolonged growing season and subsequent robust nutrition programs, so we had well developed crops with good biomass," Tim said.

"Due to rotations, we also had canola sown back into canola paddocks from 2013, when there were medium to high levels of sclerotinia, and most canola crops did not receive a foliar fungicide in that season, leading to a return of higher numbers of sclerotes to the soil in canola residues. Growers were largely unfamiliar with the disease in 2013 and some had yield losses of 30-50%.

RAPID PROGRESSION

"Into June last year, we had conditions that predisposed crops to high levels of sclerotinia infection and with the continued wet weather, there was a rapid progression of the disease.

"Where machinery was driven through crops, we were also getting direct soil contact with the lower leaves, resulting in ground infection of sclerotinia at early bud development and flowering stem extension (as described by DAFWA researchers) – much earlier in the crop development stage than the recognised critical stage of sclerotinia foliar life cycle development from early flowering.

"We had an early and long flowering, so conditions were conducive to a period of reinfection as well. The apothecia continued to release spores, resulting in an extended period of infection and reinfection once the protective period of the early foliar fungicides had diminished."

He said this meant some growers applied a second fungicide spray to control the disease.

"About 70% of my grower clients applied a single fungicide spray for sclerotinia and 30% of those sprayed some of their canola twice."

"After the early application, the second spray was applied three to four weeks later. Anyone that delayed the second spray by five to six weeks had crops that were more affected by the disease, with reinfection and further yield loss."

Tim said growers generally used the broad spectrum triazole fungicide, Prosaro® 420 SC from Bayer, and achieved good economic responses to applications.

Local trial work with Prosaro in previous seasons had shown similar results, with 10-20% yield gains.

Tim said canola was featuring in more rotations this year and 60-70% of growers in the area would be sowing it in paddocks that have grown canola in the last five years.

NEW BENCHMARK

He said growers would look forward to having a new foliar fungicide option for sclerotinia this year following Bayer's launch of Aviator® Xpro®, which is expected to set a new benchmark for disease control in canola as well as chickpeas, and for other crops in the future.

Aviator Xpro has already been registered for blackleg and sclerotinia control in canola, as well as ascochyta blight in chickpeas. An application for registration in other crops is expected in 2017, with registration expected in time for the 2018 season. Always use Aviator Xpro according to the most recent registered label.

Aviator Xpro contains bixafen, a new member of the Group 7 (SDHI) fungicides, which offers farmers a new mode of action, as well as the proven performance of prothioconazole. It is compatible with a range of crop protection products and its patented LeafShield™ formulation system helps enhance its activity against diseases, with a one hour rainfast period and improved crop coverage.

Continued next page

Western Australian grower Adam Smith, Beverley, pictured with some of his large, bulky canola crop last season, says if conditions are similar and conducive to sclerotinia again this year, he will spray Prosaro foliar fungicide earlier and at the highest label rate.

“When there are high levels of sclerotinia early and there is high production potential, I think Aviator Xpro will become a natural choice over Prosaro.”

Tim Boyes, agricultural consultant, agVivo, WA

It is a stronger acting and longer lasting product, with the benefits of bixafen improving plant health through excellent disease control, and it has a shorter rainfast period than Prosaro.

Tim viewed the performance of Aviator Xpro in demonstration trials at Moora and Beverley last season and said it certainly appeared to provide extended protection.

“It also gives the plants a completely different look. It is a much greener look. There is better leaf retention through the canopy – the crop retains much more biomass.”

He said Aviator Xpro could be a good option in situations of high production potential and where seasonal conditions made it economically beneficial to invest.

“When there are high levels of sclerotinia early and there is high production potential, I think Aviator Xpro will become a natural choice over Prosaro.”

“It seems to give a longer period of disease protection, which will also give growers a longer time period to make the second spray decision – and it could be more economically suitable to go to Prosaro for that one.”

Tim encouraged growers to spray early if they were sowing into paddocks previously infected with sclerotinia and the crop and seasonal conditions were ideal for the disease.

Applying Aviator Xpro at the higher label rate could also delay or eliminate the requirement for a second spray, depending on conditions.

Beverley grower Adam Smith, who operates the ‘Ferndale Farms’ properties in the area, cropping more than 2,500 ha to barley (40%), wheat (30%) and canola (30%), the latter comprising the 43Y23 and Stingray varieties, experienced some sclerotinia in 2013 and 2014 before significant infection last year.

“Last year we had high early infection pressure and we did spray, but it was a bit late and some of the damage was already done,” Adam said.

“We should have sprayed a week-and-a-half earlier than we did.

“We had huge, bulky crops and it was the right conditions for the apothecia to emerge. We were waiting for signs of petal infection on the leaves, but there was already infection occurring in the lower canopy from leaf-to-leaf contact and soil level basal infection.”

Adam sprayed Prosaro at 450 mL/ha with 100 L/ha of water through 025 and 02 air induction nozzles set at 25 cm spacings, before a second spray five weeks later at the lower rate.

“We had an untreated strip and we did cover our cost compared with the untreated, but we sprayed a bit late,” he said.

“I want to see more information on the two-spray strategy. If I had a large, bulky crop and the conditions were conducive to sclerotinia, I would push the spray earlier. I would push Prosaro to a high rate and probably leave it at that.

“It’s a coverage thing more than anything and I would probably also go at a high water rate to get the product through the canopy.”

Trials have consistently shown that the best results for sclerotinia control are achieved from proactive applications of Prosaro at 20-30% flowering.

Talk to our team

Western Australia		
Regional Sales Manager, WA	Craig Pensini	0418 466 110
Commercial Sales Representative, Tammin	Glen Bradley	0427 265 056
Commercial Sales Representative, Albany	Glen Bergersen	0427 115 007
Commercial Sales Representative, Geraldton	Ian Cook	0428 430 826
Commercial Sales Representative, Esperance	Mitchell Tuffley	0418 344 859
Business Development Manager, WA	Jeff Lander	0400 992 555

South East Australia		
Regional Sales Manager, SA, Victoria	Jock Ferguson	0418 186 132
Commercial Sales Representative, Yorke Peninsula, Mid North, Central SA	Graham Hatcher	0419 280 143
Commercial Sales Representative, Eyre Peninsula	Natasha O’Brien	0428 262 623
Commercial Sales Representative, South East SA	Craig Jackson	0419 423 340
Commercial Sales Representative, Riverina, Central and North East Victoria	Wes Amor	0438 019 355
Commercial Sales Representative, Western Victoria	Paul Crack	0429 889 066
Commercial Sales Representative, Riverina, Swan Hill	Seamus McKinley	0427 330 684

Northern Australia		
Regional Sales Manager, Griffith NSW	Mark Norbiato	0419 534 409
Commercial Sales Representative, South East Queensland	Scott Ariell	0409 961 794
Commercial Sales Representative, Northern NSW	Kyleigh Black	0409 348 878
Commercial Sales Representative, Northern NSW	Greg Hunt	0438 652 828
Commercial Sales Representative, Wagga Wagga	Ross Henley	0428 033 396
Commercial Sales Representative, Dubbo	Jon Bennett	0409 490 923
Business Development Manager, NSW & Vic	Matthew Westgarth	0437 674 645

Seeds		
Business Development Manager, WA	David Peake	0408 780 577
Business Development Manager, NSW & Vic	Jeremy White	0418 462 822

SeedGrowth™		
Key Account Manager National	Daryl Higginson	0427 859 709
Business Development Manager National	Graeme Sutton	0428 793 152

Customer Advisory		
Customer Advisory Manager National	Rick Horbury	0429 055 154
Customer Advisory Representative, Sth East Queensland	Pat English	0417 404 966
Customer Advisory Representative, Northern NSW	Richard Jackman	0448 252 882
Customer Advisory Representative, Southern NSW	Angus MacLennan	0407 641 320
Customer Advisory Representative, Southern WA	Craig White	0427 339 470
Customer Advisory Representative, Victoria	Angus Calder	0459 204 440

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Bayer CropScience Pty Ltd
ABN 87 000 226 022
Level 1, 8 Redfern Road
Hawthorn East Victoria 3121
Technical enquiries: 1800 804 479
or enquiries.australia@bayer.com