

Effective control option reduces risk of resistance

Victorian farmers, Stephen and Matthew Zanker, have increased their wheat yields in a paddock heavily infested with annual ryegrass by treating it with an innovative new pre-emergent herbicide.

The brothers grow wheat, barley, canola and legumes on 3850 hectares of red loam and grey clay soils centred on 'Athelee', Netherby, 30 km north of Nhill on the southern edge of the Big Desert.

Their annual rainfall has been below the long term average of 375 mm for the last few years but this has not deterred the spread of the aggressive annual ryegrass.

Over the years they have used a variety of herbicides to tackle the weed but with the spread of resistance to sulfonurea (Group B) and trifluralin (Group D) herbicides, they are fast running out of options.

"We do everything from direct drilling through to full cultivation but our grass herbicides are not working as effectively as they should," Stephen Zanker said. "It could be the timing or the build-up of resistance, but we're ready to try something new."

On-farm trial

In the 2007 season, the brothers participated in an on farm trial of a new pre-emergent herbicide, Boxer Gold, in Yitpi wheat growing in a leased paddock that had a history of high annual ryegrass numbers.

The Zankers sowed Yitpi wheat at 80 kg per hectare with 110 kg per hectare of 2712 fertiliser in mid May. The paddock had been ripped once and sprayed twice with knockdown herbicides in the weeks leading up to planting.

Eight hectares were treated with Boxer Gold at 2.5 L per hectare the day before sowing. The adjacent wheat crop was sprayed with a tank mix of trifluralin at 1.2 L per hectare and Avadex Xtra at 1.5 L per hectare immediately after sowing and then incorporated, while a small strip was left untreated as a control.

"The trifluralin and Avadex Xtra achieved between 80 and 90 per cent control but Boxer Gold achieved more than 95 per cent," Stephen said. "By comparison, the control strip had 1500 plants per square metre and looked like a lawn!"

"Ryegrass appeared in the control strip within days and in the trifluralin and Ava-



Stephen Zanker checks his 2007 wheat crop at 'Athelee', Netherby, north of Nhill in western Victoria.

dex Xtra within a couple of weeks. But it was nearly a month before it came through the Boxer Gold, which meant the wheat was well and truly up and away without any early competition.

"Through the rest of the season the Boxer Gold section never looked worried but in the control strip the wheat was very thin and choked with ryegrass. We should have cut it for hay."

When harvested in December, the Boxer Gold section yielded an average of 1.42 tonnes per hectare, 17 per cent better than the trifluralin/Avadex Xtra section. The untreated control section yielded less than one tonne per hectare.

"When I was harvesting it, the Boxer Gold section looked and felt like a better crop," Matthew Zanker said. "The trial results have encouraged us to use Boxer Gold in the future."

The brothers plan to use the herbicide strategically in wheat following canola or a legume. "We're trying desperately not to use Group A or B products to control ryegrass in wheat crops," Stephen said.

"Boxer Gold gives us another option but because it's such a good product and we want to ensure its longevity, we'll rotate it

every two to four years. We'll also continue to use long fallows and canola in rotations and other methods to aid it.

"Another beauty of Boxer Gold is the one week incorporation. We can mix it with a knockdown and do the two jobs in one pass a few days before sowing."

For more information, contact the Syngenta Advice Line on 1800 067 108. ■

ALTERNATIVE MODE OF ACTION

Developed by Syngenta, Boxer Gold is a Group J (formerly Group E)/K herbicide that provides a much needed alternative mode of action and greater flexibility than other pre-emergent herbicides.

Unlike trifluralin, it does not need to be incorporated until up to seven days after application, has no adverse impact on crop safety and has no plant back restrictions the following season.

Boxer Gold is registered for the control of annual ryegrass and toad rush in wheat and barley, although preliminary trial work is showing activity against several other major grass and broadleaf weed species.