GRDC
Grains Research & Development Corporation

AUSTRALIAN Glyphosate Sustainability Working Group

Media Release

Friday, January 29, 2016

Feathertop Rhodes grass is on the move and is glyphosate resistant

Four Australian populations of the increasingly widespread annual sub-tropical weed feather-top Rhodes grass (*Chloris virgata*) have been confirmed resistant to the key herbicide glyphosate.

Feathertop Rhodes grass is yet another species that has increased its abundance during the last 10 years largely due to widespread adoption of no-till cropping and the shift to glyphosate-based weed control on road verges.

Figure 1. Feathertop Rhodes grass infesting roadside near Borden, Western Australia. Image:AGRONOMO

"We have now confirmed that two populations from cropping land in New South Wales and Queensland and two from roadsides in South Australia are not controlled with glyphosate at the seedling stage and therefore are classified as resistant," said Dr Chris Preston, chair of the Australian Glyphosate Sustainability Working Group (AGSWG).

"Glyphosate is normally effective on actively growing seedlings, however, once feathertop Rhodes grass begins to tiller it is tolerant of very high rates. Again this is another unwanted world first for Australia," said Dr Preston.

Whilst the weed is not listed on any glyphosate herbicide labels, glyphosate has been widely used in Queensland and northern NSW to control seedlings.

Feathertop Rhodes grass has been found across Australia for decades as a weed of roadsides, fence lines and unmanaged land, especially in summer rainfall areas and irrigated agriculture. During the last 15 years it has become a major cropping weed in Queensland and northern NSW as well as horticultural plantings such as vineyards. It is also dominating many roadsides across southern Australia.

The success of feathertop Rhodes grass is due to the rapid production of large numbers of seed that are easily shed from the heads. Seed germinates if left on the soil surface, with sufficient moisture and temperatures above 25°C. Seed banks appear to be short-lived at around 12 months and burial of seed at any depth prevents germination.

Management strategies need to involve a range a tactics aimed at stopping the production of any fertile seed.

"This poses significant challenges on roadsides where most road managers have opted for glyphosate as the main strategy," stated Dr Preston. "A shift to grass selective Group A herbicides without a robust second 'knock' will lead to the rapid development of Group A resistance in this species."

All infestations must be mapped and targeted to prevent spread. Avoid road works and slashing when plants with seed heads. Do not move soil likely to be contaminated with seed to 'clean' areas.

The AGSWG is supported by the Grains Research and Development Corporation (GRDC) and key R&D-based crop protection companies with an interest in the sustainability of glyphosate.

Level 4, East Building
4 National Circuit, Barton ACT 2600
PO BOX 5367
KINGSTON ACT 2604
T +61 2 6166 4500
F +61 2 6166 4599
grdc@grdc.com.au
www.grdc.com.au

The group's website has a range of information about glyphosate resistance including a register of glyphosate resistant weed populations and guides and links for management of glyphosate resistance in different crops and management situations. Go to www.glyphosateresistance.org.au for more information.

For information on herbicide sustainability visit the *WeedSmart* information hub at www.weedsmart.org.au

ENDS

Media Interviews

Chris Preston, University of Adelaide
Phone 08 8313 7237 / 0488 404 120
Email christopher.preston@adelaide.edu.au

Contact

Andrew Storrie, AGRONOMO
Phone 08 9842 3598 / 0428 423 577
Email andrew@agronomo.com.au

GRDC Project Code: ARN00001

Media releases and other media products can be found at **www.grdc.com.au/media-news**

For more information see:

http://www.grdc.com.au/Resources/IWMhub/Section-8-Profiles-of-common-weeds-of-cropping/Feathertop-Rhodes-grass

http://www.grdc.com.au/Resources/IWMhub/Section-8-Profiles-of-common-weeds-of-cropping/Feathertop-Rhodes-grass

Ausgrass 2 online: http://ausgrass2.myspecies.info/content/chloris-virgata

---

Level 4, East Building
4 National Circuit, Barton ACT 2600
PO BOX 5367
KINGSTON ACT 2604
T +61 2 6166 4500
F +61 2 6166 4599
grdc@grdc.com.au
www.grdc.com.au