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Media Release

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SCIENTISTS MAKE URGENT APPEAL AS AUSTRALIA RECORDS ITS 3rd GLYPHOSATE-RESISTANT WEED

Leading weed scientists are urgently appealing to Australia's farmers to switch to an integrated weed management (IWM) system as the country records its third glyphosate-resistant weed.

Dr Chris Preston and Dr Peter Boutsalis, researchers from the CRC for Australian Weed Management (Weeds CRC), the University of Adelaide and national Glyphosate Sustainability Working Group (GSWG) today confirmed that a population of liverseed grass (*Urochloa panicoides*) from summer fallows in New South Wales has become resistant to glyphosate (eg Roundup), the most valuable herbicide in Australian agricultural systems.

The announcement comes only a year after glyphosate resistance was confirmed in northern New South Wales in two populations of awnless barnyard grass (*Echinochloa colona*), and twelve years after the first case of glyphosate resistance was recorded in a population of annual ryegrass (*Lolium rigidum*) near Echuca, Victoria.

And with cases of resistance to other key agricultural herbicides also on the rise in Australia, this latest discovery – a world first for liverseed grass – has prompted weed scientists from across Australia to issue an appeal to farmers to decrease their reliance on herbicides and adopt an IWM system.

'Integrated weed management combines herbicides with other cultural tactics for weed control, maximising the opportunity to prevent seed-set and to reduce the weed seedbank,' said Technical Specialist – Weeds, Mr Andrew Storrie (NSW Department of Primary Industries).

According to Mr Storrie, adopting an IWM strategy that includes non-chemical tactics for stopping replenishment of the seedbank will result in substantially fewer problems in the future.

'Weeds can be managed without relying solely on herbicides, and used sustainably, herbicides can be protected for future generations.'

Many farmers don't adopt IWM because of the added short-term costs; however, research and farmer experience have shown that failure to adopt IWM leads to herbicide resistance.

'Integrated weed management is like an insurance policy,' said Mr Storrie. 'Pay a small premium now in adopting IWM, or risk paying a bigger premium later when herbicide resistance occurs.'

According to Dr Steve Walker (Principal Agronomist, Plant Science, Qld Department of Primary Industries and Fisheries) barnyard and liverseed grasses are favoured by reduced tillage systems, and have become more prevalent in the last two decades.

Several populations of liverseed grass in southern Queensland, and one population of barnyard grass in northern NSW, have also been confirmed as resistant to atrazine (Group C herbicide).

'Barnyard grasses and liverseed grass are the most common summer grass weeds of cropping in southern Queensland and northern New South Wales,' said Dr Walker. 'When uncontrolled, these weeds can reduce sorghum yields by 25-40%.'

They are prolific seeders, are not consistently controlled with commonly used herbicides, and can be highly competitive.

Farmers are encouraged to check herbicide performance and use other methods to stop weed seed set where herbicides fail. Resistance tests can help determine whether failures are due to resistance.

For farmers in Australia's northern cropping zone, IWM strategies attacking all parts of the barnyard and liverseed grass lifecycle are available from the Weeds CRC factsheet:
www.weedscrc.org.au/documents/fs70_barnyard%20and%20liverseed%20grass.pdf

Farmers battling glyphosate-resistant annual ryegrass or seeking to minimise the risk of developing glyphosate resistance should consult the Glyphosate Sustainability Working Group website www.weedscrc.org.au/glyphosate/glyphosate_faqs.html

And farmers interested in developing an IWM program are strongly advised to consult the Weeds CRC's IWM manual which is freely available online:
www.weedscrc.org.au/publications/iwm_manual_flyer.html

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Images and further information

High resolution weed photos can be downloaded directly from
www.weeds.crc.org.au/publications/media.html