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Central Queensland latest cab off the glyphosate resistance rank

Central Queensland farmers now have a new enemy in the battle against herbicide resistant weeds - glyphosate resistant Sweet Summer Grass.

The discovery was announced this week by the Australian Glyphosate Sustainability Working Group (AGSWG), a collaborative initiative aimed at promoting the sustainable use of glyphosate in Australian agriculture that is supported by a range of industry organisations including the Grains Research and Development Corporation (GRDC).

This is the first recorded case of herbicide resistance in this species globally and follows closely on the heels of another world first - the confirmation of glyphosate resistant common sowthistle near Gunnedah early in 2014.

Sweet Summer Grass is a major summer growing weed that can form dense mats in cultivation areas with remains of old plants impeding winter crop establishment and like most problem weeds, has prolific seed production with up to 6000 seeds per plant.

Queensland Department of Agriculture, Fisheries and Forestry (DAFF) staff found the population near Emerald after it survived several applications of glyphosate at label rates.

Seed of this suspect population and those of a likely susceptible patch were sent to the NSW Department of Primary Industries (DPI) at Tamworth for testing in late 2013, according to NSW DPI Technical Specialist Weeds, Tony Cook.

“The difference between the two populations is massive,” Mr Cook said.

“As evidenced by the picture taken 16 days after treating with glyphosate 450 at 1.6L/ha, the susceptible is fully controlled and the suspect plants are green and healthy.

“For a plant to re-shoot so rapidly within 16 days after spraying may indicate a moderate to high level of resistance.”

Central Queensland farmers are already contending with feather-top Rhodes grass patches that can easily survive four litres/hectare of glyphosate and the latest finding is yet another sign that weed control in the region needs to be more flexible and less reliant on glyphosate.

Like most other cases of glyphosate resistance, this population was sourced from a farm that has been practicing zero till since the mid 1990's, giving at least 20 years of continuous glyphosate use.

Mr Cook urged growers to check paddocks for survivors after spraying glyphosate and have them tested for resistance to ascertain what herbicides are still effective.

Growers should contact [Plant Science Consulting](#) or the [Charles Sturt University testing service](#) for more information and seek reliable agronomic advice to ensure no seed set occurs from these survivors.

“Effective control is likely to be a combination of other effective herbicide modes of action in combination with non-chemical tactics such as strategic cultivation, or if a small number of plants, hand roguing,” Mr Cook said.

For more information on managing glyphosate and paraquat resistance visit the AGSWG web site www.glyphosateresistance.org.au

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

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PHOTO CAPTION:

Image 1: 0269.jpg Caption: Chalk and cheese difference: glyphosate resistant plant (top) and susceptible (bottom) 16 days after treatment (Glyphosate 450 at 1.6L/ha)
Photo: Tony Cook

Image 2: 0270.jpg Caption: Rapid recovery: this glyphosate resistant plant seems to thrive only 16 days after a glyphosate dose.

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