CROP TOLERANCE TO RESIDUAL HERBICIDES IN CENTRAL QUEENSLAND

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Under Central Queensland environmental conditions, it is assumed that the herbicides atrazine and chlorsulfuron are not as residual and break down much faster than they do in cooler environs. Current registered plant-back intervals for these herbicides apply in Central Queensland even though the intervals are very conservative, and due to this, the potential use of atrazine and chlorsulfuron is yet to be fully realised in this region.

Sorghum, sunflower, wheat and chickpea have been evaluated for their tolerance to these herbicides in the Central Queensland environment. Safe plant-back intervals as low as 75 days for chlorsulfuron with the summer crops have been recorded over three seasons. Safe intervals of 180 days for both atrazine and chlorsulfuron in the winter crops have also been recorded over three years. All herbicide applications were made mid to late spring.

CARDAMINE FLEXUOSA: THE REAL NURSERY WEED

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The intention of this study was to challenge the view that a local nursery weed is the winter annual *Cardamine hirsuta*. It also looked at the germination behaviour of glasshouse-produced seed to test for viability and dormancy.

Seeds were collected in nurseries from Adelaide, Newcastle, Southport, Brisbane, Stanthorpe, Townsville and Darwin. They were stored dry at room temperature and germinated monthly. The seeds from glasshouse-raised plants (20, 24, 29 and 33°C) were also tested for dormancy and viability. Flowers were examined for numbers of stamens.

From all sites surveyed the weed proved to be the polyploid *Cardamine flexuosa*. Seed viability was less than 9 months. Dormancy occurred when plants were grown at 20°C but plants from warmer environments showed immediate germination.

Control strategies need to be reassessed especially in the knowledge that the weed is polyploid and is constantly germinating. Its short viability should prove to be an asset.