

# **INTEGRATED WEED MANAGEMENT AND THE IMPLICATIONS OF HERBICIDE TOLERANT CROPS**

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## **Take home message**

*GM crops offer growers higher yields and returns but farmers can't relax about weed management. Herbicide tolerant GM crops need to be part of much wider integrated weed management systems and do not replace them.*

Genetically modified herbicide tolerant crops have been grown commercially in North America since 1996. Soybeans, canola, corn, cotton, alfalfa and sugar beets have been released.

Canada has been successful in using the technology with farmers gaining higher profits and cleaner paddocks. The USA has also had success but the lack of crop rotation, relying only on glyphosate for weed control and the continuous growing of herbicide resistant genetically modified crops is leading to major issues with glyphosate resistant weeds especially in cotton.

Australian farmers should benefit from access to herbicide tolerant genetically modified canola varieties, which should have better weed control and yields than the triazine tolerant varieties they now grow. I feel that limits to the amount of time between herbicide tolerant genetically modified canola crops should be part of the herbicide resistance management plan. Farmers also need to use integrated weed management techniques like pre-emergent herbicides, diverse rotations, rotation of knockdown herbicides and non herbicide methods.

It is important that the Australian industry gets the management of herbicide tolerant genetically modified crops right. If we have weeds that develop resistance to glyphosate it could limit growers' ability to continue to use reduced tillage. The timeline for a glyphosate replacement is an unknown.

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