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## Look to Canada for GE solutions

Rene Van Acker

The NSW and Victorian state governments announced late last year that they would let their bans on genetically engineered food crops expire early this year. The South Australian Government is also reviewing its bans.

Before Australia commits to growing genetically engineered herbicide-tolerant canola, it has an opportunity to learn from Canada, where it has been grown commercially for more than a decade.

Australians still have a small chance to enact mechanisms and avoid some of the problems Canadians have encountered.

Segregation of GE and non-GE crops can be challenging.

The level of challenge depends very much upon the nature of the crop.

The movement of GE genes (transgenes) from crop to crop depends upon the crop species.

Canola is possibly the worst candidate crop species for practical segregation of GE and non-GE because it is inherently promiscuous.

In Canada, we have witnessed the promiscuity of GE canola to the extent that even in our canola seed production systems, where the objective is to keep seed varieties free from foreign genes, more than 90 per cent of certified Canadian canola seed samples contain unintended transgenes (GE).

This has led Canadian farmers to expect GE canola in any canola they grow, whether it is GE or not.

The experience of transgene (GE) movement in Canadian GE canola is extremely important for Australia to pay attention to.

In Canada, we no longer export canola to countries that expect it to be GE-free, including many European Union nations, and growing organic canola in western Canada is no longer at all practical.

The latter situation has resulted in a protracted lawsuit by the organisation representing Saskatchewan's organic farmers (the Saskatchewan Organic Directorate) against Monsanto and Bayer CropScience.

Canadian farmers have also found that the movement of GE traits can affect how they farm. This is especially so with Monsanto's GE canola, which is totally resistant to glyphosate herbicide.

As in Australia, zero-tillage farming is fundamentally important to farmers in Canada, helping them to conserve precious soil moisture and cut costs.

Zero-tillage farming is critically dependent upon glyphosate herbicide to replace tillage prior to seeding.

The presence of GE canola weeds growing prior to the seeding of subsequent crops has required farmers in Canada to use extra herbicides (besides glyphosate) prior to seeding.

This adds costs, and because GE canola cannot be contained, this cost is now borne by all farmers in Canada whether they grow GE canola or not.

Canadian farmers who chose not to grow GE canola aren't able to hold anyone liable for the uninvited presence of GE canola on their farms.

To date, court cases in Canada have proven that no one is liable if the GE canola has received commercial release from the Government.

It has also become clear that if farmers choose to try to keep their farms free from GE canola, it is their responsibility to do so and they must bear the costs.

Ironically, the now famous Schmeiser case, where Canadian farmer Percy Schmeiser was successfully sued by Monsanto for the unintended presence of their patented GE canola on his farm, made clear that Canadian farmers who chose not to grow GE canola can still be held liable by the patent holder for the unintended presence of it on their farms.

In Canada, more than a decade of commercial cultivation experience has allowed us to learn valuable lessons about both the benefits and costs of growing GE canola, and we are now using these lessons.

Farmers in western Canada recently rejected the proposed commercialisation of GE wheat, largely on the

basis of a lack of confidence in our ability to segregate GE and non-GE wheat.

Australia and its farmers have a valuable opportunity to learn from the Canadian experience.

I hope they do so.

Dr Van Acker is professor and chair of the Department of Plant Agriculture at Canada's University of Guelph.

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