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Plowing Under A GM Draught

Upcoming field trials with genetically modified canola could clear room for more growth
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When the Western Australian government changed hands last September and ushered in trials on genetically modified (GM) canola, it should have been a joyous moment for the biotech researchers who have been struggling to adapt crops to the country's arid heartland. But a sudden erosion of funding has agricultural scientists withholding their cheers.

Capital raised by listed biotech companies plunged from \$609 million in 2007 to a meager \$118 million in 2008. The Australian government withdrew key funding just as the economic downturn hit, the two unrelated events conspiring to crush biotech companies. "We have a perfect storm in the biotech space," says Anna Lavelle, chief executive officer of AusBiotech, a national biotech industry association.

In its May 2008 budget the Australian government axed a dollar-matching grant program that had been a lifeline for small biotech start-ups. "It was a complete and absolute shock," Lavelle says. "Nobody saw it coming. Following that we had the impact of the global financial crisis. Biotech companies have been hit very hard."

This is hardly the beginning of trouble for Australian agricultural scientists. In 2003 national food and drug regulators approved GM canola for consumption. The next year four agricultural states banned the modified crop, fearing it would be outsold in the export market. Then in 2007 Bill Crabtree, a GM advocate in Western Australia, tried to start a company developing frost-tolerant wheat in collaboration with the Molecular Plant Breeding Cooperative Research Center in Victoria. He aborted his plans after only a few months because of inadequate capital. "The moratorium had a devastating effect on Australian agriculture," he says. "It killed research in Western Australia."

After the Liberal and National parties ousted the ruling Labor party last fall, they reversed Western Australia's policy on GM crops. In inaugural trials this summer 20 farmers will grow 2,500 acres of Monsanto's GM Roundup Ready canola, which has a resistance to herbicides that proponents say will boost yield by up to 20 percent. If the trials are successful the government will lift the moratorium in late 2009. In fact New South Wales and Victoria lifted their bans last year. But whether that will be a boon for research is unclear. Australia's 130 listed biotech companies are concentrated in medical and industrial research, in part because the agricultural sector languished under the bans. Although some fear that new companies might not have a chance to get off the ground, there are a few success stories. In Western Australia, for example, NemGenix is developing wheat and sugarcane resistant to round worms.

Scientists remain cautious, but optimistic. "Hopefully [GM canola trials] will kick start GM in Western Australia, and we can move forward after 15 years of stalemate," says Mike Jones, director of the Western Australian State Agricultural Biotechnology Center in Perth. If that doesn't happen, movement in other parts of the region might help. "We'll see a big increase [in GM adoption] in China and India. And that will drag others along with it."