Monsanto’s biotechnology cotton pipeline seeks to provide benefits to the farmer though herbicide tolerance and insect protection. We are working on developing two new products in our cotton technology portfolio: Bollgard® III and Roundup Ready Dicamba Glufosinate tolerant cotton. We’re also extending our research capability as cotton technology becomes more complex.

BOLLGARD III® – LOCKING IN THE BENEFITS OF BT TECHNOLOGY FOR YEARS TO COME

PRODUCT CONCEPT
Bollgard III will provide a more robust resistance management tool for Australia cotton growers. Bollgard III will contain the same Bt proteins contained in Bollgard II – Cry1Ac and Cry2Ab – but will also include a third Bt protein Vip3A. These three proteins will increase the longevity of the technology, each having a different mode of action or ‘killing’ larvae in a different way. Early results indicate that Bollgard III is highly effective against Helicoverpa species, but it is too early to determine how the technology will affect any future Resistance Management Plans (RMPs).

CURRENT RESEARCH
We are undertaking extensive scientific research into the performance of Bollgard III with the aim of launching the product in Australia first before other parts of the world. We have also been working with our partners CSD and CSIRO to introduce the product in the best new high performing varieties.
EXPLORING THE FIT FOR ROUNDUP READY DICAMBA GLUFOSINATE TOLERANCE IN ROUNDUP READY FLEX COTTON

PRODUCT CONCEPT
We think it is important to take a long term view of resistance and explore a variety of potential resistance management options.

One option we are currently exploring is the possible fit of Dicamba and Glufosinate herbicides for the Australian cotton system.

While it is a long way from potentially being introduced as a product in Australia, Monsanto is currently exploring the fit of these chemistries within the roundup ready flex system. We are particularly interested in whether this combination of herbicides offers good control of both broadleaf and grass weeds, including glyphosate resistant and tolerant weeds.

We believe there could be a fit for these chemistries locally. However, research over the next six years will determine whether Dicamba Glufosinate tolerant cotton is a viable resistance management option for local growers.

CURRENT RESEARCH
Monsanto has only recently begun field trials of Roundup Ready Dicamba and Glufosinate tolerant cotton and will undertake this research over the next six years. The trials will be conducted in New South Wales, Queensland and Western Australia.

This research will determine the potential effectiveness of Roundup Ready Dicamba and Glufosinate tolerant cotton across the current spectrum of weeds in Australia.

In the United States, Monsanto has completed extensive research into Roundup Ready Dicamba Glufosinate tolerant cotton and is now at an advanced product development phase.

The results of this research demonstrate that Roundup Ready Dicamba Glufosinate tolerant cotton offers growers the flexibility of using multiple chemistries to control current resistant and hard-to-control weeds on their farm. The triple mode-of-action herbicide tolerance provides greater weed control at pre- and post planting.

Current research in the United States includes weed efficacy trials, chemistry formulation trials with a focus on developing lower volatility formulations and agronomic systems, crop safety and developing predicted use patterns.

A comprehensive stewardship program is also being developed to complement the product. Current Australian research is focusing on chemistry efficacy and system evaluation.