

## QUESTIONS & ANSWERS ON LICENCE DIR 073/2007 FOR LIMITED AND CONTROLLED RELEASE OF GENETICALLY MODIFIED COTTON

### What is this licence for?

Deltapine Australia Pty Ltd (Deltapine) has obtained approval for the limited and controlled release of four cotton lines that have been genetically modified (GM) to resist insects, or resist insects and tolerate applications of a specific herbicide. The release is authorised to take place at up to 50 sites of no more than 10 hectares each (ie maximum total area of 500 hectares) in up to 20 shires in New South Wales and Queensland, during the summers of 2007/2008, 2008/09 and 2009/10.

### How have the GM cotton lines been altered?

The four GM cotton lines contain different combinations of two different insect resistance genes and a herbicide tolerance gene. All the introduced genes are derived from common soil microorganisms. The introduced insect resistance genes encode proteins that are specifically toxic to caterpillars of the major lepidopteran (butterflies and moths) insect pests of cotton, including cotton bollworm (*Helicoverpa armigera*) and budworm (*H. punctigera*).

The herbicide tolerance gene provides tolerance to glyphosate, the active constituent in Roundup Ready® Herbicide. The presence of two copies of the herbicide tolerance gene in GM cotton plants, enables them to be sprayed with glyphosate throughout the season, to control weeds without damaging the cotton plants.

Some of the GM cotton lines also contain a bacterial antibiotic resistance marker gene which was used to identify and select modified plants during their development in the laboratory.

### What is the purpose of the trial?

The trial will involve research to evaluate the agronomic performance of the GM cotton lines; breed, select and test new cotton lines; produce seed for further trials; and collect data (including impacts on non-target organism and efficacy of the introduced traits) that may be required for future applications to the Regulator and other agencies.

### Is this the first field trial of these GM cottons?

No. A number of limited and controlled releases of GM cotton lines containing the same or similar insect resistance genes have previously been approved in Australia. However, GM cotton combining these insect resistance and herbicide tolerance genes has not. The two insect resistance genes in these GM cotton lines are different to those in existing commercially released GM cotton in Australia. One has been approved for commercial release in the USA, and for field trials in India, Brazil, China, Vietnam and Argentina. The other has been approved for field trials in the USA. GM cotton containing the herbicide tolerant trait is approved for commercial release in Australia, the USA and Canada under the trade name Roundup Ready Flex®.

### What feedback did the Regulator receive on the consultation RARMP?

No new risks were identified in the advice received from the wide range of experts, agencies and authorities prescribed in the *Gene Technology Act 2000* for consultation on the preparation of Risk Assessment and Risk Management Plans (RARMPs) for all DIR licence applications. Summaries of issues raised in submissions and how these were considered are provided in the Appendices of the finalised RARMP.

### What controls have been applied to this release?

The finalised RARMP that was prepared for DIR 073/2007 and formed the basis of the Regulator's decision to issue the licence concluded that the proposed release poses negligible risks to people or the environment. However, a range of licence conditions have been imposed to limit the release to the size, duration and locations requested by Deltapine as these were important considerations in the evaluation process. They include measures to restrict the spread of the GM cotton and the introduced genes; requiring that transport and storage of the GM plant materials are in accordance with OGTR guidelines; and after harvest, monitoring each site for at least 12 months and destroying any GM cotton plants that emerge until no volunteers are detected for a 6 month period (full details can be found in the licence, see below).

### Want more information?

A number of documents relating to this decision are available on the OGTR website (<<http://www.ogtr.gov.au>> under "What's new") or via Freecall 1800 181 030. These documents include the finalised RARMP, an Executive Summary, a Technical Summary and a copy of the full licence.