

QUESTIONS & ANSWERS ON LICENCE DECISION DIR 099 FOR LIMITED & CONTROLLED RELEASE OF GENETICALLY MODIFIED WHEAT AND BARLEY

What is this licence for?

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has received approval to trial, under limited and controlled conditions, 11 lines of genetically modified (GM) wheat and 3 lines of GM barley. The field trial will take place on a maximum area of 2 ha per growing season from 2010-13, at two sites; one in the New South Wales local government area of Narrabri and the other in the Western Australian local government area of Corrigin.

What is the purpose of the trial?

The purpose of the trial is to assess the growth and yield characteristics of the GM plants when grown under field conditions. CSIRO also intends to generate sufficient grain to assess changes in grain composition and how this may influence baking qualities and nutritional characteristics, such as glycemic index. The GM wheat and barley will not be used for human food or animal feed.

How have the GM wheat and barley lines been modified?

Four of the GM wheat lines will contain a gene fragment designed to decrease expression of a gene involved in determining grain qualities important for dough making and human nutrition. Decreased expression of the targeted gene results in alterations to the starch composition of the grain. Seven of the GM wheat lines and the three GM barley lines will contain a gene from barley that encodes an enzyme involved in nitrogen utilisation. The introduced gene is expected to result in an increase in plant biomass and yield. All of the GM wheat and barley lines will contain one of two antibiotic resistance genes derived from a common gut bacterium. These were used to identify transformed plants during initial development of the GM lines in the laboratory.

What controls have been imposed for this release?

The Risk Assessment and Risk Management Plan (RARMP) for this application concluded that the release poses negligible risks to people and the environment. However, a range of licence conditions have been imposed to limit the release to the size, locations and duration requested by the applicant as these were important considerations in the assessment process. As well as limits on the scale of the release, control measures have been imposed to restrict the spread and persistence of the GMOs and their introduced genetic material. These include ensuring that the GM wheat and barley plants in the field are isolated from non-GM wheat and barley plants; that transport and storage of the GM plant materials are in accordance with the Regulator's guidelines; and monitoring for, and destroying, any wheat and barley plants on the release site for at least two years after harvest and until no volunteers are observed for a continuous six month period.

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.