

## Questions & Answers on licence DIR 199 – commercial release of genetically modified (GM) banana plants

### What does this licence allow?

Queensland University of Technology (QUT) has received an approval under the *Gene Technology Act 2000* for commercial cultivation of genetically modified (GM) banana plants. The GM banana plants have been modified for resistance to the fungal disease *Fusarium wilt tropical race 4 (TR4)*, also known as Panama disease. This is a serious banana disease that attacks nearly all banana varieties, including Cavendish and Lady Finger. The fungus can persist in soil for decades and there are no effective control measures. The GM banana plants and their products may enter general commerce, including use in human food and animal feed.

### How have the GM banana plants been modified?

The GM banana plants contain an introduced gene from wild banana *Musa acuminata ssp. malaccensis*. The gene was introduced into the Cavendish banana cultivar Grand Nain using *Agrobacterium*-mediated transformation, a commonly used method to produce GM plants.

The GM banana plants also contain a selectable marker gene from common bacteria. This gene was used to select GM banana plants during initial development in the laboratory.

### What is the purpose of the release?

The purpose of the proposed release is to allow commercial cultivation of these GM banana plants in all banana-growing areas of Australia, subject to restrictions in some Australian States and Territories for marketing reasons. Biosecurity restrictions are in place in some states and territories for cultivation and movement of bananas and other material related to banana cultivation to protect against pests and diseases. The states and territories provide a range of information regarding biosecurity measures related to banana growing. Commercial banana production occurs mainly in Queensland, New South Wales, Western Australia and the Northern Territory.

The GM banana plants and their products would enter general commerce. The licence holder has indicated they do not intend the GM banana plants to replace the current Cavendish banana cultivars growing in Australia, but rather to provide a safety net to the Australian banana industry should it be heavily impacted by Panama disease. In Australia, Panama disease is currently affecting a number of banana plantations in the Northern Territory and Queensland.

### Have products from these GM banana plants received any other approvals in Australia?

Food Standards Australia New Zealand (FSANZ) is a statutory agency responsible for maintaining the Australia New Zealand Food Standards Code. FSANZ has approved this GM banana for sale as a food in Australia and New Zealand. The GM bananas and any derived food products are subject to mandatory GM labelling. More information is available on the [FSANZ website](#).

### What controls have been imposed for this release?

The licence application proposes an ongoing general release, with no restrictions on how the GM banana plants are grown or used. The Gene Technology Regulator has prepared a Risk Assessment and Risk Management Plan, which finds that the proposed general release of these GM banana plants poses negligible risk to the health and safety of people or the environment. The Regulator has not imposed any specific measures to manage risk, as the risk assessment concluded that this release of the GM banana plants poses negligible risks to the health and safety of people or the environment. However, general conditions have been imposed to ensure that there is ongoing oversight of the release.

**Want more information?**

A number of documents relating to this decision are available on the [DIR 199](#) page of the OGTR website or via Freecall 1800 181 030. These documents include the finalised Risk Assessment and Risk Management Plan (RARMP), a summary of the RARMP and the licence.

**The Office of the Gene Technology Regulator**  
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