

6 July 2017

Field test GMF100001 - Annual Report to the Environmental Protection Authority (EPA)

This report relates to control 13 for the field test approval GMF100001 (ERMA200479), approved 14 December 2010. The report covers the period 1 June 2016 to 31 May 2017. This is the sixth annual report for the approval.

Note, currently no genetically modified trees or cuttings are planted on the field site under the field test approvals GMF99001 or GMF99005.

Purpose of field test

To field test in containment *Pinus radiata* with genetic modifications to alter plant growth/biomass acquisition, reproductive development, herbicide tolerance, biomass utilisation, wood density and wood dimensional stability.

Field testing activities carried out

On 3 June 2016, 59 trees were transferred from Plant & Food Research in Auckland to the field test site. The trees were part of an experiment to investigate modifications to the utilisable biomass trait. The trees were planted on 20 and 27 October 2016.

During scheduled inspections for reproductive structures in June and July 2016 (16/6/2016, 11/7/2016, and 26/7/2016), immature reproductive structures were observed on trees in an experiment to modify plant growth/biomass acquisition. The immature reproductive structures were on untransformed control trees (wild-type) and were left on the trees.

On 11 July 2016, reproductive structures were found on a transgenic tree. The reproductive structures were removed from the tree on 11 July 2016 and the structures were held at the field test site until a transfer permit was granted to move the structures to a laboratory for autoclaving. The tree was felled on 20 July 2016 and stacked inside the field test to compost.

On 21 September 2016, 884 trees were transferred to the field test site. These trees comprised an experiment to investigate genetic modifications intended to modify plant growth/biomass acquisition. The trees were planted on 18 October 2016.

On 28 September 2016, 416 trees were transferred to the field test site. These trees comprised an experiment to investigate genetic modifications intended to alter the utilisable biomass trait. These trees were planted on 19 October 2016.

During scheduled inspections for reproductive structures in April and May 2017 (12/4/2017, 11/5/2017 and 23/5/2017), immature reproductive structures were observed on trees in an experiment to modify plant growth/biomass acquisition. The immature reproductive structures were all on untransformed control trees (wild-type) and were left on the trees.

Unforeseen adverse effects and incidents that have occurred

No unforeseen adverse effects have occurred.

Incidents

No incidents have occurred.

Activities relevant to engagement with Maori

On 18 October 2016, the Scion Kaumatua visited and inspected the extended field test site. During the visit he carried out a blessing of the new site.

Results of the field test research which have been disseminated to third parties

Results from the field trial, and field trial associated activities, form part of many of Scion's interactions with stakeholders. During the last year these have included:

- Scientific presentations at academic conferences in New Zealand and internationally
 - Oral presentations at the poster presentations at the Plant Biology Europe EPSO/FESPB congress, Prague (June 2016); HortNZ Board (July 2016); ASPB annual conference, Austin, Texas (July 2016); Queenstown Molecular meeting (August 2016); NZBio Conference, Auckland (September 2016); AGTA Conference (October 2016); IUFRO Asia and Oceania Conference (October 2016); HortNZ Forum (December 2016); Queensland University of Technology and Institute for Future Environments (January 2017); Swetree (January 2017); and Julich phenotyping workshop (May 2017).
- Industry workshops and meetings
 - Numerous tours by industry groups, Maori organisations and government representatives have taken place during the last year.
- Outreach activities
 - Tours of GMO facilities with winners of BOP career Expo science competition (July 2016) and Auckland University Science students (March 2017).

Environmental impact research

No environmental impact research was conducted.