



Annual Report on HSNO Act Approval
GMF000041 (application GMF06001)
Bt Brassica *Field Test (Facility No 5356)*.

Facility 5356 Operator: Peter Landon-Lane

July 2011

Prepared by:

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A report prepared for

The Environmental Protection Authority and
Te Rūnanga o Ngāi Tahu, Te Taumutu
Rūnanga and
Ngā Kaihautu Tikanga Taiao.

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Contents

1. Executive summary	1
2. Purpose	1
3. Management Responsibility	1
4. Field site activities for July 2010 – June 2011	3
5. Any unanticipated events or issues with controls	3
6. Educational and public awareness activities	3
7. Maori relationship development	4
8. Proposed activities for July 2011 – June 2012	4
9. Scientific publications	4

1. Executive summary

The New Zealand Institute for Plant and Food Research Limited (“Plant & Food Research”) is a New Zealand-based science company formed in December 2008 as a result of the merger of Crop & Food Research and HortResearch. The company provides research and development that adds value to fruit, vegetable, crop and food products and has over 900 staff based at sites across New Zealand as well as in Europe, the USA and Australia.

On 25 May 2007, the Crop & Food Research application to carry out a field test in containment of genetically modified brassica (GM brassica) was approved with controls under the Hazardous Substances and New Organisms (HSNO) Act 1996 (HSNO approval GMF000041).

On 23 December 2008, a breach of controls was identified that one cut GM brassica plant (Kale) from the field trial had developed a flower stem and at least one flower on that stem had opened in the field. Flowering was not permitted under the HSNO approval controls. Immediately on discovery internal and external investigations were undertaken, risk mitigation measures were implemented and MAFBNZ issued a Critical Situation Report (CSR) and Compliance Order for future management of the field trial sites. Plant & Food Research formally ceased all work under HSNO approval GMF000041.

A Plant & Food Research Project Management Team was established to oversee monitoring of the field trial. All positions were also reassigned in accordance with changes to Plant & Food Research’s internal policy which is designed to enhance oversight of field trial operations. Following completion of MAFBNZ Compliance Order requirements of September 2010 the trial site now lies fallow and is being monitored monthly in accordance with the Plant & Food Research Containment Manual.

2. Purpose

The purpose of this report is to fulfil the requirements of HSNO approval GMF000041 control 7.7 for the GM Brassica field trial. The report describes activities associated with the field trial over the twelve month period to 30 June 2011.

3. Management Responsibility

In July 2010 PFR’s Board of Directors approved a new Environmental Compliance Policy and Structure Plan. Implementation of the plan established a high level risk management framework allowing for the effective management of containment facilities across the Institute. Under this framework the following positions were established during 2011 and are applicable to Facility 5356.

Operator

Peter Landon-Lane
Chief Executive Officer, Plant & Food Research

Deputy Operators

Bruce Campbell
Chief Operating Officer, Plant & Food Research
Michael James
Chief Financial Officer, Plant & Food Research

Operator Delegate

Andrew Granger

General Manager, Breeding & Genomics, Plant & Food Research

The Operator, Deputy Operators and Operator delegate are ultimately responsible for operational oversight, financial and staff resourcing to ensure effective management of the GM field trial site.

Containment Response Team

Andrew Granger

General Manager, Breeding & Genomics, Plant & Food Research

Philippa Stevens,

General Manager, Bioprotection, Plant & Food Research

Roger Bourne,

Corporate Communications Manager, Plant & Food Research

Angelene Holton

Compliance Coordinator, Plant & Food Research

Provision of advice on the structure and operating procedures used in the facility ensuring they are technically appropriate to meet containment and operational requirements. This team manages PFR's response to significant incidents involving MAF registered facilities and reports these incidents to MAF.

Nominated Manager

Angelene Holton

Compliance Coordinator, Plant & Food Research

Responsible for independent monitoring of Compliance Order requirements, auditing, annual reports required for the GM field trial site, reports to the Operator and delegates, containment sector and facility managers, MAF and the EPA.

Containment Sector Manager

Colin Eady

Scientist, Plant & Food Research

Responsible for liaison with nominated manager and field staff and ensuring processes needed for QMS are established, implemented and maintained

Containment Facility Manager

Ralph Scott

Scientist, Plant & Food Research

The Facility Manager ensures supervision, maintenance and monthly monitoring of the field site to meet QMS and Compliance Order requirements.

Management Oversight

During 2010 – 2011 all key compliance milestones were logged into the internal Plant & Food Research reporting system. Completion of milestones has been reported to the Board of Directors at each monthly interval. Milestones established for the GM *Brassica* field trial include completion of monthly inspections of the field site, perimeter fence checks and spraying regime, completion of an Annual Report to the EPA and Ngai Tahu by 31 July of each year and six monthly internal audits.

Project Management meetings and training sessions were held on 20 September 2010 and 18 February 2011. A further meeting was held on 4 February 2011 to discuss monitoring requirements.

The CEO and Chief Operating Officer of Plant & Food Research undertook GM field trial site visits on 2 March 2011 and 12 April 2011.

4. Field site activities for July 2010 – June 2011

There is no research activity being undertaken at the field trial site. All experimental work on this trial ceased in 2008 and all plant material has been destroyed by means approved under the HSNO approval GMF000041, control 1.12.

All monthly reporting deadlines for monitoring of the GM field trial were met between July 2010 and 31 July 2011. During this 12 month period the site was inspected internally by PFR staff, trained users and management staff a total of 114 times. MAFBNZ inspectors also inspected the site on five separate occasions.

MAFBNZ issued a new Compliance Order for the field trial site on 8 September 2010. Soil excavation and works required to be undertaken in this Compliance Order were conducted under MAF supervision from 15-23 November 2010. Site works were signed off by MAFBNZ on completion of the excavation and clean down of equipment.

On 7 January 2011 a wild turnip seedling was identified during the monitoring inspections and identified by an expert in Brassica identification. This find was notified to MAFBNZ by the Operator. MAFBNZ determined this plant was not a volunteer and therefore no further action was required. The EPSA noted that in accordance with the definition as contained in the glossary of the GM Brassica E&R report a 'volunteer' refers to *'a plant from the previous year's crop that has become established as a weed in the current crop'*.

The MAFBNZ-ERMA New Zealand containment standard requires the Operator to ensure that internal audits are conducted six monthly. In accordance with this requirement internal audits were completed on 17 September 2010 and 10 March 2011. The field trial site was also externally audited by MAFBNZ on 14 December 2010. No corrective actions were issued.

5. Any unanticipated events or issues with controls

Unanticipated events during the reporting period included the 7.1 m earthquake which occurred in Christchurch on 4 September 2010 and subsequent significant aftershocks experienced on 22 February 2011 and 13 June 2011. The GM field trial site was checked by the facility manager after each significant earthquake event as soon as circumstances permitted. Apart from some minor disruption to the contents of the shed there has been no ground damage or liquefaction occurring at the site and the security fencing has continued to remain firm and intact following each adverse event.

At some time following the discovery of the wild turnip on 7 January 2011 there was an unauthorized access to the GM field trial site by a person who photographed the excavated site. This unauthorized access was notified to MAFBNZ and the management team. PFR are currently exploring passive surveillance options for use at the site.

6. Educational and public awareness activities

There have been no educational or public awareness activities undertaken at the field trial site.

7. Maori relationship development

On 20 January 2011 the CEO of PFR notified Te Rununga o Nagi Tahu of the discovery of the wild turnip plant at the site following a notification from MAFBNZ on 18 January 2011. A meeting due to be held with Ngai Tahu HSNO Committee on 3 March 2011 was cancelled at request of the HSNO Committee as a result of the earthquake experienced on 22 February 2011. The HSNO Committee rescheduled its meeting for 4 August 2011.

8. Proposed activities for July 2011 – June 2012

No further GM research work will be undertaken on the field trial site for the foreseeable future. The trial site continues to be monitored monthly by the surveillance team under the guidance of the management team in accordance with Plant & Food Research Containment Manual developed for the field trial, controls in the HSNO approval and the MAF Compliance Order issued on 8 September 2010.

9. Scientific publications

No scientific publications have been produced over this reporting period.