

9 July 2024

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 2023 to 31 May 2024. This is the thirteenth annual report for the approval.

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 08/06/2023, 187 trees that were part of a trial investigating reproductive development were felled. This included 14 wild type control trees.

On 21/06/2023, 56 trees that were part of a trial investigating biomass acquisition were felled. This included one tree identified as having immature reproductive structures the previous day (see Table 1.)

The field test manual was reviewed and updated, and the revised manual was approved by the Ministry of Primary Industries (MPI) on 28/7/2023.

During June and July 2023, eleven trees in a sterility trial, that were grown in the field test in pots, were transferred to a plant containment glasshouse in anticipation of them developing reproductive structures later in the growing season.

Refresher training of approved users was conducted in August 2023.

MPI conducted an audit of field test activities on 13/11/2023. The audit had an acceptable outcome with substantial compliance.

On 22/04/2023, 6 trees that were part of a trial investigating biomass acquisition were felled. These were the last trees from that trial.

On 16/05/2024, 1 tree that was part of a trial investigating reproductive development was felled.

On 17/05/2024, 1 tree that was part of a trial investigating reproductive development was felled.

MPI conducted an audit of field test activities on 21/5/2024, and the outcome was acceptable. No areas of non-compliance were identified.

Details of inspections for reproductive structures and outcomes are given in Table 1.

Table 1: Details of scheduled inspections to identify immature reproductive structures. Where immature structures were identified the dates that the immature structures were removed and the trees carrying them were felled, are given.

Date of identification	Number of trees identified - trait	Date of removal of structures from tree	Date of tree felling
08/06/2023	No structures identified	-	-
20/06/2023*	1 - biomass acquisition	20/06/2023	21/06/2023
22/06/2023	No structures identified	-	-
06/07/2023	No structures identified	-	-
20/07/2023	No structures identified	-	-
17/08/2023	2 - biomass acquisition	17/08/2023	18/08/2023
31/08/2023	No structures identified	-	-
28/09/2023	No structures identified	-	-
26/10/2023	No structures identified	-	-
23/11/2023	No structures identified	-	-
21/12/2023	No structures identified	-	-
18/01/2024	No structures identified	-	-
15/02/2024	No structures identified	-	-
08/03/2024	No structures identified	-	-
21/03/2024	No structures identified	-	-
04/04/2024	4 – reproductive development	04/04/2024	05/04/2024
	5 - biomass acquisition	05/04/2024	11/04/2024
17/04/2024	5 - biomass acquisition	17/04/2024	22/04/2024
18/04/2024	46 - reproductive development	18/04/2024	18/04/2024
	1 - biomass acquisition	18/04/2024	22/04/2024
02/05/2024	15 - reproductive development	02/05/2024	02/05/2024
16/05/2024	2 - reproductive development	16/05/2024	16/05/2024
30/05/2024	No structures identified	-	-

*Trees were inspected on 20/6/2023 prior to a scheduled felling on 21/06/2023

Unforeseen Incidents

No unforeseen incidents.

Activities relevant to engagement with Māori

Scion continues to strengthen the partnership with the tangata whenua (the three hapū: Ngāti Hurungaterangi, Ngāti Taeotu and Ngāti Te Kahu) of the Scion Rotorua campus where the field trial is located on biotechnology and its applications.

Scion and the three hapū have strengthened this relationship through steps such as:

- signing a Kawenata/Memorandum of Understanding (attached)
- creating a role on the Scion Board for a Future Director, appointed by the three hapū
- establishing a Tangata Whenua Operations Manager role within Scion for a member of the three hapū to focus on building the partnership and communication between the three hapū and Scion. The Manager facilitates engagement with trustees for the hapū on various matters including the field trial.

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

Results relating to work in the field trial have been presented at academic meetings and industry workshops. Expertise gained from the operation of the field trial has allowed Scion to provide information to national and international stakeholders, including government and industry.

Environmental impact research

No environmental impact research was conducted.

KAWENATA TAUAROARO MEMORANDUM OF UNDERSTANDING

*“Ki te kotahi kākaho ka whati, ki te kāpuia e kore e whati.”
“Alone we can be broken, standing together, we are invincible.”*

Ngā Hapū e Toru (Ngāti Hurungaterangi, Ngāti Taeotu me Ngāti Te Kahu) and Scion (New Zealand Forest Research Institute Limited)

Te Iho

Ka whakatū, ka whakamana tēnei Kawenata Tauaroaro i te hononga ukauka o Ngā Hapū e Toru me Scion.

Ngā Rōpū

Nō Ngā Hapū e Toru, arā, nō Ngāti Hurungaterangi, nō Ngāti Taeotu, nō Ngāti Te Kahu o Ngāti Whakaue te mana whenua o te poraka whenua o Te Whakarewarewa 1, 114 heketā nei te nui, e tū ana a Scion.

Ko tā Ngā Hapū e Toru korounga e mea ana, *‘mā te whanaungatanga, ka tiakina te mana o te whenua me ngā hapū’*.

I tēnei wā tonu, hei taunahatanga 'Tiriti o Waitangi' te whenua nei nā Ngā Hapū e Toru i raro i te Ture o Te Tiriti o Waitangi 1975 (WAI 533).

Ko Scion te tari rangahau matua o Te Karauna hei whakahaere i ngā mahi whakaukautanga ngahere, i te haumarua koiōra ngahere, i te ratorato pūnaha hauropi o ngā ngahere, i te ahua hū rākau, i te pūngao koiōra rākau, i ngā rerenga para, i ngā rawa koiōra kē atu.

Ko tā Scion korounga e mea ana *‘Mai i te ngahere oranga’*.

Mātāpuna Tuhituhi

Ko ngā tuhinga mātāpuna o te kawenata nei ko te Kirimana Penetana me Te Tiriti o Waitangi.

Purpose

This Memorandum of Understanding establishes and records the enduring partnership between Ngā Hapū e Toru and Scion.

The Parties

Ngā Hapū e Toru; Ngāti Hurungaterangi; Ngāti Taeotu and Ngāti Te Kahu o Ngāti Whakaue are the mana whenua hapū of the Whakarewarewa No.1 land block which includes 114 hectares where Scion is situated.

Ngā Hapū e Toru's vision is: *‘mā te whanaungatanga, ka tiakina te mana o te whenua me ngā hapū – the mana of the land and hapū are strengthened through strong partnerships’*.

The land is currently the subject of a Treaty of Waitangi claim under the Treaty of Waitangi Act 1975 (WAI 533) by Ngā Hapū e Toru.

Scion is the lead crown research institute in sustainable forest management, forest biosecurity, forestry-based ecosystem services, wood processing, wood related bioenergy, waste streams and other biomaterials.

Scion's vision is *‘Mai i te ngahere oranga - prosperity from trees’*.

Background

The background documents to this memorandum are the Fenton Agreement and The Treaty of Waitangi.



Kainga

Ka tūtohu te kawenata nei i ngā mātāpono o ngā tūtakitanga katoa o ngā rōpū e rua, ā, ka whakapuaki i te hiringa o ngā rōpū e rua kia mahi ngātahi hei rangapū. Ahakoa ngā whakaritenga kē atu, ehara te kawenata nei i te herenga ā-ture, ā, kāore hoki hei whakaputaputa āinga ā-ture mō tērā, mō tērā o ngā rōpū.

Ngā Mātāpono

Ka whakatau ngā mātāpono e whai ake nei i te hononga

Whakapapa

Ko te pūtake o te hononga nei ko tō te whakapapa o ngā Nga Hapū e Toru hei mana whenua me tō rātou hononga ki a Scion e whai taitara ana ki te whenua i tēnei wā.

Kotahitanga

E mārama ana ngā rōpū e rua ki te huanga o te mahi ngātahi me te wairua o te tauawhiawhi, o te tūhonohono.

Rangatiratanga

Ka whai tonu ia rōpū, ia rōpū i tō rātou mana motuhake, i tō rātou ake korounga, otirā ka whakamihī atu tētahi ki te māramatanga ā-ao o tērā atu.

Ka mahi tahi Ngā Hapū e Toru me Scion ina pupū ake ngā whāinga hou e whai hua ai ngā rōpū e rua, e tika ai hoki te kāwana tahi me te whakahaere tahi.

Manaakitanga

Ka whai koha, ka pono, ka māhaki, ka atawhai te tauaroaro o ngā rōpū. Ka manaakitia ngā manuhiri kia mau tonu ai tō rātou mana me tō ngā rōpū e rua nei.

Tiakina te mana o te whenua

Kei ngā rōpū e rua te mana kia tiakina te whenua me ngā rerenga wai mo te uri whakatupu.

Ukautatanga

Ka ukauka te kawenata nei, tae noa ki te wā e whakaae ngātahi ā-tuhi nei ngā rōpū e rua kia whakamutua atu.

Scope

The memorandum prescribes the principles that apply to all engagement between the parties and expresses the intent of the parties to work together in partnership. Notwithstanding any other provision, this memorandum is not a legally binding document and does not create any legally enforceable obligations on either party.

Principles

The following principles underpin the relationship

Whakapapa

The foundation of this relationship is the whakapapa connection that Nga Hapū e Toru have as mana whenua and their relationship to Scion as the current landowner.

Kotahitanga

The parties recognise the value of working together in the spirit of cooperation and partnership.

Rangatiratanga

Each party will remain autonomous and self-determining, while acknowledging the other's world view.

Ngā Hapū e Toru will work with Scion as mutually beneficial goals arise that require co-governance and co-management.

Manaakitanga

The parties will interact with each other with respect, honesty, humility and kindness. Hospitality will be extended to manuhiri/visitors in a way that upholds their mana and enhances the mana of the parties.

Tiakina te mana o te whenua

The parties have a responsibility to protect the whenua and waterways for future generations.

Duration

This memorandum will remain in place until both parties agree in writing that it will be terminated.



Pūrongo rongo ā-Tau

Ka whakaae ngā rōpū e rua ki ngā aronga matua i ngā wātaka mahi ā-tau e rua.

Ka hui tahi te māngai o tērā rōpū me tō tērā atu i ia toru marama, i ia marama, hei itinga iho, kia kōrerorero, kia whakaae i te āhua o te hononga, i te ahunga o ngā aronga matua, i ngā huanga mō ngā rōpū e rua, i ngā take kē atu me ngā takutaku.

Ka whakawhanake ngātahi ngā rōpū e rua i te pūrongo ā-tau o te ahunga whakamua kia horaina i te aroaro o te poari o tērā, o tērā.

Panonitanga Kawenata

Ka taea te whakapanoni i te kawenata ina whakaae ā-tuhi ngā rōpū e rua.

Mana Whakairo Hinengaro

Ko te mana whakairo hinengaro me te mātauranga ka mau mai ki te hononga o te kawenata nei, ka puritia tonutia e tērā rōpū, e tērā rōpū.

Wawao Raweoi

Ki te pupū ake te raweoi, ka whai ngā rōpū e rua i ngā tikanga o te whai koha me te mahi tahi hei kōrerorero, hei whiriwhiri i te whakaritenga e whakaae ai ngā taha e rua.

Annual Reporting

Both parties will agree to 'key focus areas' through a bi-annual schedule of actions.

Each party's representative will meet at least quarterly to discuss and agree the state of the relationship, progress on key focus areas, benefits being realised to both parties and any issues or risks.

A joint annual progress report will be developed by both parties and tabled to their respective boards.

Variation of memorandum

This memorandum can be varied where both parties agree in writing.

Intellectual Property

All intellectual property and mātauranga brought by each party to the relationship under this memorandum remains the ownership of that party.

Dispute resolution

If a dispute arises, the parties will act in the spirit of respect and co-operation through dialogue and negotiation to find a mutually agreed resolution.

Kua hainatia i te 25 o Hereturikōkā 2022, e:
Signed on 25 August 2022 by:

Ngā Hāpū e Toru

Ngā Hāpū e Toru

Scion

