Summary of Iwi responses to pre-application consultation

Application to Introduce Puccinia araujiae for the biological control of moth plant

Responses to pre-application consultation with Te Herenga on the current proposal There have been no responses to the pre-application consultation with Te Herenga.

Response to pre-application consultation over the introduction of the moth plant beetle, *Colaspis argentinensis* (APP 201039)

Email or written responses were received from five sources. The issues abstracted from those submissions are provided below, and are addressed in the application:

1. On a personal level I don't mind that biological controls are used to combat such as these.

My reservations will be what potential impacts will they have on our native fauna/flora. Are there such already in our indigenous arsenal and if so can we bolster their numbers?

2. does not oppose these applications...but urges caution when introducing foreign organisms; blackberry/gorse, weasels/rabbits etc come to mind.

We are aware these organisms are put through rigorous tests but sometimes many years pass before these things break out of their natural cycle and become further pests and equally as bad as their host plant.

- 3. I do not have a problem with your proposal, there are much worse things happening that I am dealing with.
- 4. 'Will the root feeding beetle be introduced in the Waikato Region? What measures are in place if this beetle becomes prolific?

What is the one garden species at risk?

If the beetle is successful at eradicating the moth plant, what other food sources would it eat? Could it impact another native species...

Does it have the potential to degrade the land when it lays eggs and hatchlings emerge. If infestation occurs how will they be controlled?

If Maori resources are affected so are the people – loss of flora and fauna, loss of cultural identity, loss of clothing for Papatuanuku, Loss of native vegetation, and increase of runoff if not filtered.

Te Taiao ki au, ki au te Taiao

Ongoing management by Maori of our cultural and natural resources relies on Kaitiakitanga/protection. We must be certain of the potential impacts on our resources.'

- 5. We see that both of these plant pests do not pose a threat to our native ecosystems and are happy for the release to go ahead. Containment or eradication in the north is preferable to actions later in the south
- 6. We appreciate your communication on this matter however, due to capacity issues we are unable to engage further with you on this issue.

Relevant responses to consultation on applications to introduce biological control agents for weeds submitted in the last 7 years

The comments by Māori correspondents have been categorised under the following headings:

- Direct effects on native plant species
- Indirect effects on native flora and fauna, and other valued species
- The need to monitor future effects
- Effects on cultural and spiritual values
- Specific benefits to Māori
- Predictability of effects
- Integration of control methods, and indigenous solutions
- Herbicides and biological control
- Aversion to the introduction of new organisms
- Lack of capacity precludes comment

Other comments can be found in the Cultural Impact Assessments prepared in response to past applications to introduce control agents for broom and woolly nightshade.

Direct effects on native plant species

• ...whether these beetles could switch to our softer-leaved native understorey plants

Indirect effects on native flora and fauna, and other valued species

- What level of confidence is there re:little/no overlaps between weetaa, native beetles, and Tradescantia leaf beetle ecology
- Any comments we have would be similar to those we expressed for the dung beetle application

- Are there human health concerns involved?
- All introduced species have impact on the native flora and fauna.
- On a personal level I don't mind that biological controls are used to combat such as these.
- My reservations will be what potential impacts will they have on our native fauna/flora.
- ...does not oppose these applications...but urges caution when introducing foreign organisms; blackberry/gorse, weasels/rabbits etc. come to mind
- We are aware these organisms are put through rigorous tests but sometimes many years
 pass before these things break out of their natural cycle and become further pests and
 equally as bad as their host plant....predator switching...

Predictability, effectiveness and the need to monitor future effects

- What is the contingency should the population / if the agent looks for other prey?
- What is the history and success rate of biocontrols?
- How will the potential toxic effects in the food chain be monitored and/or mitigated
- ...request for reports on monitoring and analysis of this biocontrol
- If you don't have the money to monitor post release, then you don't have the money for the project.
- What happens if at some point in the future we have to bring something else in to control the insects we are introducing?
- TRONT will continue to advocate for the inclusion of monitoring provisions....
- ...rigorously monitored throughout....
- Is the agent safe and effective enough?
- Impossible to predict future impacts.

Effects on cultural and spiritual values

- How do potential ecosystem changes affect the mauri of the ngahere?
- Effects on ongoing management of cultural and natural resources by Māori kaitiakitanga.... we need all the information in order to make an informed decision.
- What happens to the new organism's whakapapa when it is taken from its home, where it is a native species?
- ...protocol to relocate the mauri of an agent
- If Māori resources are affected so are the people loss of flora and fauna, loss of cultural
- identity, loss of clothing for Papatuanuku, loss of native vegetation, and increase of runoff if not filtered.'
- Te Taiao ki au, ki au te Taiao'
- Ongoing management by Māori of our cultural and natural resources relies on
- kaitiakitanga/protection. ... We must be certain of the potential impacts on our resources.'
-lwi have responsibilities in other rohe...

Specific benefits to Māori

- Will there be employment opportunities in the introduction?
- We would like to be included in any development
- While we did not bring (the weed) here, it is here now. So we have to address it. We have to
- think about what is best.

- We see that both of these plant pests pose a threat to our native ecosystems and are happy for the release to go ahead. Containment or eradication in the north is preferable to actions later in the south.'
- ...threat to our plants in all stages and forms...
- We would like to participate...
- We would like to be involved in...

Integration of control methods and indigenous solutions

- Are there native species that could fill the role?
- How will Māori be able to peer review this work?
- Have other forms of intervention been investigated?
- The benefits of (the target weed) on the landscape must be taken into account.
- Are there such already in our indigenous arsenal and if so can we bolster their numbers?
- The best approach to controlling these weeds is a multi-faceted approach that incorporates a range of methods
- That's the trouble, we get rid of one nuisance and another is there.

Herbicides and biological control

- What is the impact of not intervening?
- I do not have a problem with your proposal; there are much worse things happening that I am dealing with.
- Health issue if herbicides were used...

Aversion to the introduction of new organisms

- I would rather nothing like this was brought into the country
- We have grave concerns regarding the importing of any exotic insects
- No, because of the unknown impacts that could occur, not now, but perhaps later.

Lack of capacity precludes comment

• We appreciate your communication on this matter; however, due to capacity issues we are unable to engage further with you on this issue.'