

Te Pūtara

ENVIRONMENTAL RISK MANAGEMENT AUTHORITY

ERMA
New Zealand



NGĀ KAIWHAKATŪPATO WHAKARARU TAIAO



Caption page 4

Toitū te marae a Tāne, toitū te marae a Tangaroa, toitū te iwi

The permanence of the domains of Tāne and Tangaroa gives permanence to people.

E ngā mana, e ngā reo, e ngā maunga, e ngā awaawa, e ngā pātaka o ngā taonga tuku iho, tēnei te mihi atu ki a koutou katoa.

Kia mihi te mano tini kua mene ki ngā Hawaiki katoa, rātou te tutūtanga o te puehu, te whiunga o te kupu i ngā wā takatū ai rātou. Heoi, waiho ake rātou ki a rātou, tātou te urupā o rātou mā, ngā waihotanga mai e hāpai nei i ō rātou wawata, tūmanako hoki. Kia ora tātou katoa.

Kaupapa Kōrero

Ka puta a Matariki, ka rere a Whānui, ko te tohu o te tau!

The Māori New Year began on 6 June with the rising of the first new moon following the appearance of Matariki in our skies. It seems appropriate therefore that in the months since our last edition of Te Pūtara, ERMA New Zealand has been focused on planning for the coming year and preparing for the anticipated arrival of some significant applications.

Ngā Kaihautū and Kaupapa Kura Taiao have spent some time reflecting on our achievements and lessons learnt over recent years and looking ahead to how we might continue to improve the way we support iwi/Māori participation in HSNO Act decision making. Our recent hui 'Tikanga & Technology: A New Net Goes Fishing' held at Tapu Te Ranga Marae and Te Papa Tongarewa was a good example of this. It brought Māori and researchers together to talk openly and honestly about the implications of biotechnologies and nanotechnologies without the pressure or burden of being a consultative situation. We will look for more opportunities like this where people can explore ideas and concerns in a collaborative rather than confrontational environment.

We recently also sent more National Network members on a 'Wānanga-ā-Tane' under the wise and humble guidance of matua Rob McGowan. Held at Waitaia Lodge in the heart of the Kaimai Ranges, participants were treated to some fantastic knowledge sharing within the realm of te wao nui ā Tane. Eriata Pere has written an article for this edition of Te Pūtara describing her

experience. Because we have to restrict numbers for this wānanga, it has become somewhat of an annual event. We hope to be able to provide more opportunities for network members to attend in the coming 12 months.

Finally, many of you will have been contacted regarding a range of application proposals over the last 4-6 months. We provide a bit of an update on these applications in this edition and continue to be here to provide you with information or advice you require regarding any of them. Don't hesitate to contact us if you have queries or concerns about these applications and we'll try to help where ever we can.



Linda Faulkner, General Manager, Māori.

A Short Break



Ngaire Burley

Sadly this will be my last Kaupapa Kōrero for a while. As many of you will know I'm again leaving for 12 months parental leave starting in mid August as Rawiri and I eagerly await the birth of our new pepi. On that note I'd like to introduce you to Ngaire Burley who will be taking over the leadership of the team in my absence. Ngaire's brings a range of experience including her roles as a scientist with Manaaki Whenua and a commissioner with the Environment Court.

Ngaire has worked with Kaupapa Kura Taiao on several occasions helping us complete a number of significant projects – so she knows both the team and the kaupapa well. These contracts included preparing comprehensive reports for Ngā Kaihautū and the Authority outlining the obligations and implications for ERMA New Zealand of Iwi Management Plans and Iwi

Settlement Acts, as well as a synopsis of how the flora and fauna claim – WAI262 is relevant to the requirements of the HSNO Act. Ngaire has also completed a report on the way the Authority deals with 'intangible' cultural issues in HSNO decision making, which forms the basis of the work being undertaken by Ngā Kaihautū in this area at present. Finally Ngaire was also Programme Manager in the New Organisms team here at ERMA New Zealand in 2003-2004 giving her a good understanding of the way HSNO decision making works.

You will get the chance to meet Ngaire at the Māori National Network hui being held in September and I trust you will make her feel welcome. Although I'll miss you all and the exciting projects ahead over the next 12 months – I'll be back with a vengeance in August 2009.

Ngā Kaihautū Tikanga Taiao update



Terry Smith

Ngā Kaihautū members continue to be actively involved in a number of application issues for both hazardous substances and new organisms, including current applications for GM Onions and GM Animals. They are also overseeing the newly trialed Māori Reference Group for an application for a GM Vaccine to treat horse flu. The Reference Group will be providing a report at the annual Maori National Network hui in September about how the reference group process worked.

The Ngā Kaihautū report evaluating the processes carried out by the Authority in its decision making for past GM applications, has been completed and will be presented to the Authority in August. Work continues on a project which addresses how the Authority can deal with the "intangible" factors that influence decision making.

Ngā Kaihautū also continues to work with iwi/ Māori groups on a range of issues from providing support that builds HSNO capability through to providing information and advice about hazardous substances and new organisms. In addition we are working on operationalising aspects of iwi HSNO policy, particularly with regard to requirements for consultation and the development of relationships with research and other organisations.

Terry Smith, Tumuaki of Nga Kaihautu concludes his term as a member of Nga Kaihautu in September 2008. A call for nominations was initiated in mid May and applications closed on 4 July. We are in the process of considering all applications with a view to selecting a replacement for Terry before the end of September. A Tumuaki for Nga Kaihautu will be selected by Nga Kaihautu once a new member has been appointed. It is with sadness that we will be farewelling Terry in September after 6 years of providing thoughtful and determined leadership. With Terry at the helm Ngā Kaihautū has established an extremely positive and constructive relationship with the Authority and it's influence in making improvements to the way Māori perspectives are incorporated in everything ERMA New Zealand does has increased tremendously. His experience and expertise will be sorely missed but we wish him the very best in his future endeavours.

Planning underway for National launch of Web-based toolkits



Te Arotūruki (a national Māori advisory group), together with Scion (Rotorua) and ERMA New Zealand's Kaupapa Kura Taiao, are one step closer to launching their web-based toolkits aimed at improving dialogue between hapū/iwi and scientists around controversial technologies.

The launch of the web-based toolkits is expected to take place at the International Association of Plant Biotechnologists (IAPB) biennial conference in Napier, February 2009.

Julia Charity (Scion) explains that although the IAPB meeting is an important final milestone, the national launch will be done in stages. "We recently presented an overview of how the process works to ERMA New Zealand's Māori National Network members who attended the "Tikanga and Technology" hui in Wellington. The idea was to incorporate feedback from the Māori National Network to make sure the toolkits are relevant and likely to be used by the target group".

Linda Faulkner, General Manager, Māori, Kaupapa Kura Taiao agrees: "One of the main reasons we have partnered with Te Arotūruki and Scion is that we have identified a real need for toolkits. I think scientists will benefit from a step-by-step guide that encourages them to take into account Māori values and incorporate outcomes for Māori from their research".

Julia says "the next steps will be to invite the Māori National Network to preview the contents of the toolkits at their annual hui in September. Following that, we will be working with scientists around the country to get their input on toolkit contents and then develop the web-based portal for the toolkits".

An overview of Te Arotūruki's process will be published in the September issue of The Journal of the Royal Society of New Zealand, or for more information contact Project Leader Phillip Wilcox on 07 343 5409.

Field trial of Genetically Modified Trees Completed



New Zealand's most comprehensive field trial of genetically modified trees came to an end recently in the same manner that it started – under the watchful eye of the local Kaumatua.

After five years in the ground at the Crown Research Institute Scion, all 55 genetically modified and controlled trees were felled on 9 June 2008 in the presence of (local Kaumatua and Rangatira) George Mutu, staff and management.

Scion Chief Executive, Dr Tom Richardson, says the felling of the trees was conducted in accordance with ERMA controls and with the involvement of local Māori, ensuring both the validity of the ongoing research and the acceptance of the tangata whenua.

"From the outset of this field trial, Scion has been in close consultation with tangata whenua to ensure our research was conducted in an acceptable way.

"The establishment of this trial also caused Scion to look more closely at how we communicate and interact with Māori. We produced a booklet specifically for mana whenua which was launched at a hui and the trial itself and the associated science resulted in Scion writing up Māori engagement procedures as part of standard lab protocols.

"Before these particular trees were planted, the site was blessed by the late Kaumatua and Rangatira Eria Moke, and throughout the duration of the trial we had ongoing monitoring from Penengarū Delaney Moke, Te Arotūruki Chairman."

Scion recently celebrated the success of the trial following the final data collection from the live trees.

Dr Richardson says: "The primary objective of this experiment has always been to provide valid scientific information on environmental impacts and information that can contribute to the ongoing discussion regarding the use of genetic modification technologies in New Zealand."

Results to date show:

- No evidence of the modified genes having transferred to other organisms.
- No evidence of detrimental impact on insect diversity by the genetically modified pine.
- No evidence of impacts on the microorganism populations that live in close association with the pine roots.
- The expression of introduced genes is stable over several years.

If you have any questions about Scion's research in genetically modified trees, please contact Christian Walter at christian.walter@scionresearch.com, phone 07 343 5899.



Caption

Weaving tikanga and technology together

More than 120 Māori resource managers and scientists gathered for a three-day hui to discuss the potential impacts of biotechnology and nanotechnology on Māori tikanga (culture) and kaitiakitanga (guardianship).

Held at Island Bay's Tapu te Ranga Marae and Te Papa Tongarewa from 30 April the hui *Tikanga and Technology: A New Net goes Fishing* was hosted by the Environmental Risk Management Authority New Zealand (ERMA NZ) and sponsored by the Allan Wilson Centre for Molecular Ecology and Evolution and GNS Science.

The hui was organised in response to calls from members of ERMA New Zealand's Māori National Network to learn more about new and emerging technologies. Its programme sought to explore three key questions:

- Are Māori well placed to get the most out of technological advances made whilst maintaining strong cultural identity and practices?
- Are mātauranga Māori and emerging technologies compatible?
- Can we achieve better outcomes for society by using emerging technologies and mātauranga Māori in partnership?

We aimed to achieve a number of outcomes from this hui including providing both Māori and researchers with the chance to discuss openly and honestly the implications and opportunities of new technologies for iwi/Māori – without the pressure or burden of being in a consultative situation. All too often Māori and researchers' only engagement occurs to meet funding or regulatory requirements. The hui also provided the opportunity for relationship development between iwi/Māori representatives and researchers and for each to learn about the roles and responsibilities of their respective organisations or interests.

Participants heard from Allan Wilson Centre presenters about a wide range of research programmes utilising biotechnology including using DNA to trace pacific migrations, enhancing tuatara conservation efforts, determining the provenance of kahukiwi, and exploring the movement of kumara and other species around the Pacific. Presenters from HortResearch, AgResearch, Scion and ViaLactia also ran workshops looking at insects of importance to Māori, GM technologies for pastoral industries, biofuels and achieving GM outcomes without crossing the species barrier.



A presentation by Andreas Markwitz from GNS Science was particularly well received providing a lay-person's explanation of nanotechnology and the opportunities and challenges it poses. Discussions included the difficulty in regulating nanotechnology and the development of new and unique materials and products created by materials that have been manipulated down to the nanoscale (1/100,000 the width of a human hair). Discussions also began the examination of potential impacts (both positive and negative) of nanotechnology for Māori knowledge, tikanga and kaitiakitanga.

Extremely positive feedback was received from both Māori National Network members and researchers. ERMA New Zealand would like to sincerely thank all those who supported and participated in the hui. As the hui focussed primarily on the 'technology' side, a follow up hui will be organised in the next 12-18 months to further explore the 'tikanga' aspects.

If you would like further information about the hui, a programme and presentations are available to view on the ERMA website www.ermanz.govt.nz/tehautu/newsandevents.html or contact Maraea Faulkner phone 04 918 4837 or email maraea.faulkner@ermanz.govt.nz. A full hui report and DVD will be sent to all participants.



Caption

PUBLIC INPUT ON GM ALLIUM APPLICATION

A public hearing is to be held in Christchurch on 12-15 August to hear oral submissions on the New Zealand Institute for Crop and Food Research's application to field test a range of genetically-modified vegetable species.

Crop and Food Research has applied to plant a range of genetically-modified alliums - onions, spring onions, garlic and leeks – over a total of 2.5 hectares for a 10-year research project.



Caption

ERMA New Zealand's General Manager, New Organisms, Libby Harrison, says 124 submissions have been received on the application. "We have received a wide range of submissions from community groups, iwi, scientists, and members of the public who are interested in genetic modification research."

Dr Harrison says the number of submissions is a lot less than the 1933 received for Crop and Food's previous genetically-modified onions application in 2003. "The number of submissions is fewer than we have historically received for GM field test applications. However, it's not about how many submissions the Authority gets to consider, but rather the quality of public input. The submissions we have received represent a full range of views on GM and will greatly assist the Authority as it makes its decision."

Crop and Food Research has applied to plant onion seed directly in the ground and allow some onion plants to flower in the field in order to produce seed. These plants would be 'caged' in an insect-proof net structure and bees and/or laboratory bred flies placed inside in order for pollination to occur.

The next step is for ERMA New Zealand staff to assemble an Evaluation and Review (E&R) report on the application. This report, which will summarise the relevant science and the submissions, will be sent to submitters and put on the ERMA New Zealand website before the hearing.

Health and Safety in Farming

An ongoing initiative to promote farm safety has been continued at the National Fieldays by ERMA New Zealand and the Department of Labour. David Querido from the Hazardous Substances Group has had thousands of farmers through the ERMA / DOL stand obtaining copies of the *Health and Safety in Farming* information packs during the four-day event in Hamilton.

The packs contain information sheets offering practical advice on managing hazardous substances on the farm. Topics covered include fuel and agrichemical storage, signage, test certification and emergency preparedness.

Although targeted at farmers, the packs have also proved popular with training organisations. A handy emergency response plan, with essential information needed if an accident or natural disaster occurs, are also available.

Experience has shown that industry is looking for solutions to support HSNO compliance. In the words of one of the many thousands of visitors to the ERMA/ DOL stall, "this plan is just what I've been looking for".

"Our co-branding with the Department of Labour and presence at the Fieldays was very positive," Mr Querido says. "We are always looking for new ways and new ideas to get the health and safety message across. "It was an absolute success and we'll definitely be continuing with them."



Michelle McIsaac, Jade Silve, Roseanne Haugh

Accessing Scientific Information on 1080 – An Update

by Shaun Ogilvie (Lincoln University), James Ataria (Landcare Research), Aroha Miller (Lincoln University), James Waiwai (Lake Waikaremoana Hapū Restoration Trust)

In Issue 10 of *Te Putara* (March 2007) we outlined a web-based database of information on 1080 and taonga species. We have just completed a significant overhaul of the database. Two new sections, 'Plants' and 'Surface Water', have been added, and literature has been updated, increasing the information available on a range of species and environmental factors. The database has also been transferred to new web-specific software, meaning faster, easier navigation. Take a look! It can be found at: www.lincoln.ac.nz/1080



Te Whare Tangata, a birth place – Sanctuary

The Ancients communed here seeking enlightenment...

Philosophical minds – Te Kauae Runga

Over aeons of having occupied the land we know to be Aotearoa, Māori developed an intrinsic and extrinsic understanding of the natural world. All living creatures and plant life of this world possess mauri, a life source. This source had to be traced (Tātai – Whaka Heke) to gain a greater appreciation of the Tapu element. Io the supreme God, the root cause of creation and the fountain of life to be the point where all teaching learning and understanding began.

Reciprocity – Te Kauae Raro

Preservation of life and human engagement was strictly bound by Ritenga and Karakia, thus impacting on Tikanga. The Ancients spent much time in Wānanga to consider the impacts of human life on the natural environment, evidenced by the many Karakia, Tauparapara, and Waiata composed related to our responsibility to the natural world (Tane and the falling of the Rata tree to make his Canoe). These are metaphors of reciprocity, guiding principles to Inoi (Karakia) for the use of the resource. Giving back for the resource taken is all important in this process to acknowledge the Hau – perpetual life – continues.

Bio prospectors – Te mana Ī, Te mana Ō

What provided the Ancients the motivation to understand human anatomy and physiology? The simple answer is curiosity. The Ancients simply dissected the specimen and named each part and its relative function to achieve higher learning. In the context of plant life and understanding its innate properties; the process was adapted, repeated and refined over time (the adze tool evolved and became an obsidian blade, scalpel). The Ancients concluded that certain plants contained healing properties and others contained poison. Acquiring this knowledge in turn reflected the need to manage human engagement via controls (Matauranga).

Rob McGowan – He Taonga Tuku Iho

Pa Ropata is the embodiment of these teachings and knowledge handed to him 'No te Kawai Tupuna'. His actions are that of Tohunga, versed in the application of Karakia, possessing an in depth knowledge and awareness of the beginnings and creation for all living things and ensuring the message of reciprocity that resonated in his voice be the substance of his Korero imparted to his attentive followers. Thank you Pa.

Thank you to ERMA/HSNO for the opportunity and allowing me to take part in the Wānanga. I thoroughly enjoyed the time and appreciate the commitment to Te Wao nui o Tane.

Tena ra koutou katoa

ERMA New Zealand Applications – Update

Between 1 January 2008 and 31 March 2008, ERMA New Zealand's Authority and Chief Executive made 65 decisions on 46 hazardous substance and 19 new organism applications (including amendments).

Acting under delegated authority, Institutional Biological Safety Committees (IBSCs) finalised 29 decisions from 1 January 2008 and 31 March 2008.

Six new organism applications involved biological material derived from native flora/fauna during the quarter. No applications involved human cell lines or human genetic material of Māori whakapapa or origin.

Further details about the above applications are available online in *The Bulletin* at www.ermanz.govt.nz

Upcoming Applications of Interest

As noted in our last edition of *Te Pūtara*, many of you will have received information and been party to a round of national consultation hui hosted by AgResearch about their proposed suite of new applications involving transgenic animals. With the consultation completed AgResearch is now finalising their applications and after some delays are likely to be ready to submit the applications to ERMA New Zealand in the next month or so. Once received, ERMA New Zealand will publicly notify the applications giving you a further chance to have your say on the proposals through the public submission process. If you have any queries relating to these applications please don't hesitate to contact AgResearch in Ruakura (ph 07 834 3850) or check out their website www.agresearch.co.nz

An application by the Equine Health Association and NZ Racing Board for the conditional release of a genetically modified vaccine to treat Equine Influenza (or horse flu) was also recently submitted to ERMA

New Zealand and is currently open for public submission. With the devastating horse flu outbreak in Australia last year, the equine industry in New Zealand is wishing to have this vaccine available to use in the case of any outbreak that might occur here and to treat horses being exported overseas. Submissions close on this application on 29 July 2008. Visit our website www.ermanz.govt.nz for a copy of the application and for information on how to prepare a submission.

Finally there are also a number of significant hazardous substances applications in the process at present including a couple of interesting reassessments. Public submissions closed recently on the ERMA New Zealand reassessment of PCP (Pentachlorophenol) and we will soon be publicly notifying a further in-house reassessment for Endosulphan.

Again you can find out more about these and other applications on our website www.ermanz.govt.nz

Te Pūtara is the pānui for the Māori National Network. The Māori National Network is a formal network set up by ERMA New Zealand for the reciprocal sharing of knowledge on HSNO. We welcome your comments and suggestions.

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