The Relevance of the Hazardous Substances and New Organisms (HSNO) Act to Plant Propagators©

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INTRODUCTION

I will be talking to you today about the relevance of the Hazardous Substances and New Organisms (HSNO) Act to plant propagators. I have been with Environmental Risk Management Authority (ERMA) for just under a year and my job is to manage applications under the HSNO Act and to advise people on information requirements when making an application. My recreational interests include gardening and botanising while tramping.

WHAT IS THE HSNO ACT?

The Hazardous Substances and New Organisms Act 1996 is a relatively new environmental and health and safety law. Anybody wanting to introduce (import, develop, or manufacture) a hazardous substance or a new organism into New Zealand must apply to the Environmental Risk Management Authority (the Authority) for approval to do so. The Act establishes a consistent process for assessing the risks posed by hazardous substances and new organisms, and for setting national controls to manage their environmental effects and risks. There is no provision to put controls on releases of new organisms, but there are opportunities to put controls on all other forms of imports and developments in terms of physical containment levels. I will talk more about the various application types later.

Broadly speaking the term hazardous substance includes any substance that can damage the environment or harm human health and safety, not including radioactive, ozone depleting, or infectious substances.

The term new organism refers to any organism not legally present in New Zealand before 29 July 1998, the date the HSNO Act came into force for new organisms. New organisms include any species of animal, plant, bacterium, virus, and all genetically modified organisms. New organisms under the HSNO Act would be of most interest to plant propagators. The purpose of the HSNO Act is to protect the environment, and the health and safety of people and communities by preventing or managing the adverse effects of hazardous substances and new organisms.

The key principles relevant to the purpose of the HSNO Act are:

A) The safeguarding of the life-supporting capacity of air, water, soil, and ecosystems.
B) The maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations.

The HSNO Act requires the following matters of importance to be taken into account:

- The sustainability of all native and valued introduced fauna and flora.
- The intrinsic value of ecosystems.

- Public health.
- Allows for public input in the form of submissions if the application is notified. The HSNO Act says that "Any person may make a written submission on any publicly notified application to the Authority".
- The relationship of Mâori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, valued flora and fauna, and other taonga (treasures).
- Treaty of Waitangi partnership issues. If someone wants to import something that may hybridise with kauri (*Agathis australis*) then this will be of significance to Mâori.
- The economic and related benefits to be derived from the use of a particular hazardous substance or new organism.
- New Zealand's international obligations such as the Convention on International Trade in Endangered Species agreement.

STRUCTURE OF ERMA NEW ZEALAND

The Ministry for the Environment oversees all processes that relate to the HSNO Act. The Authority is an independent crown agency responsible for making decisions, implementing the HSNO Act, and coordinating enforcement. The Authority makes decisions on applications. ERMA New Zealand provides support to the Authority, including scientific and technical advice. Ngâ Kaihautû Tikanga Taiao is an advisory committee on Mâori issues.

THE AUTHORITY

The Authority makes decisions based on their experience and advice from ERMA New Zealand and Ngâ Kaihautû. The Authority is supported by ERMA New Zealand and members are appointed by the Minister for the Environment. Presently the Authority is made up of members with specialist knowledge in inorganic and bio-inorganic chemistry, environmental law, plant biochemistry, and plant physiology, Mâori and Pacific health, obstetrics and gynaecology, resource management and agricultural economics, sustainable business and environmental management practices, science and technology, and hazardous substances regulations. For each application, a subcommittee of the Authority members consider the evidence and decides whether to approve or decline the application.

NGA KAIHAUTU TIKANGA TAIAO

Ngâ Kauhautu is there to ensure that adequate consultation has been undertaken with Mâori if the application contains native flora or fauna (or human DNA). Ngâ Kaihautû has a direct relationship with the Authority rather than with the applicants and the chairperson attends and takes part in governance meetings of the Authority. Ngâ Kaihautû may have up to six members and can co-opt more people with specific expertise if needed for particular issues. The committee does not represent specific iwi (tribe) or hapu (family). Ngâ Kaihautû was created to provide advice to the Authority and assist in developing the Authorities relationship with Mâori. In achieving this goal, Ngâ Kaihautû shall:

- Ensure the development of structural processes that clearly outline and confirm this relationship.

- Ensure these processes are implemented in ways which best serve the interests of hapu/iwi.
- Ensure the development and implementation of an educational strategy with Mâori aimed at enabling them to actively participate in informed decision making.

ERMA NEW ZEALAND

ERMA receives an application and assesses it to see that all the necessary information is there. If the application is likely to have interest to Maori, it is passed onto Ngâ Kaihautu. ERMA New Zealand staff write an evaluation and review report that provides the Authority members with information in a standardised format. This gets circulated to the committee members along with the Ngâ Kaihautu report if there is one.

We encourage you to contact a member of staff before submitting an application so that we can give you advice on what you need to put in your application. ERMA New Zealand quick guides on "Who we are and what we do" and "how to apply for new organism approval" provide information that may help when considering whether to not to apply to ERMA New Zealand for an approval.

There are 10 types of new organism applications that can be made to ERMA New Zealand. The first four deal with importation, the fifth and sixth deal with development, the seventh deals with updates to low risk developments, the eighth deals with field tests, the ninth is for shipping an organism through New Zealand, and the last is determination of presence in New Zealand. I will talk about this in more depth. The following four are of significance to plant material.

- Import for release, or release from containment, any new organism.
- Import into containment any new organism (that is not genetically modified).
- Import into containment any new organism (genetically modified (GM).
- Section 26 determination of Presence in New Zealand.

If you want any information on the others please contact an ERMA New Zealand staff member. It is import to remember that HSNO Act works at the species level. All our applications specify what the species of interest is.

Import for Release. The ERMA processes are based on an assessment of risk costs and benefits that analyse the impact a species will have on New Zealand. ERMA New Zealand uses the Australian New Zealand Standard Risk Management model. Risks, costs, and benefits may be positive or negative and may be environmental, economic, cultural, or related to human health. For example if you want to import a new species of dandelion we would consider the following characteristics:

- Wind-dispersed seeds.
- Annual life cycle.
- Grows in most habitats and most climates.
- It is a weed in other countries.
- May cause allergies, impact on pasture production, etc.

We ask the applicant to provide the organism description including the taxonomic name and the name of the taxonomist who first described the organism, and any

subsequent names e.g., *Fockea angustifolia* K. Schum. (1893) Synonyms: *Fockea dammarana* Schlechter, *Fockea lugardii* N.E. Br., *Fockea mildbraedii* Schlechter, *Fockea monroi* S. Moore, *Fockea sessiliflora* Schlechter, *Fockea tugelensis* N.E. Br. We also ask the applicant to provide the organism characteristics including life cycle, growth habits, preferred habitat and climate, the likely impact of the organism on native flora and fauna, and what the purpose of release is (biocontrol agent, crop species, etc.).

Import Into Containment. Researchers wanting to study a plant in a registered containment facility usually use this category. The information requirements are the same as for import for release but the risk assessment is less stringent as we take into account that the plant will not be in the natural environment. This also includes importation of GM organisms into containment.

Import Into Containment for a GM Organism. Once again the information requirements for this are the same as the previous two. But information is required on the name of the constructs and the manner in which they will be used. The process and analysis is more rigorous than the import into containment as we move into dealing with new technologies as the levels of uncertainty rise.

Determination of Presence in New Zealand. Under Section 26 of the HSNO Act there is provision for species that are not currently listed as being present in New Zealand to be declared not new organisms. The information required for this process includes the organism description including the taxonomic name and the name of the taxonomist who first described the organism, and any subsequent names, e.g., *Fockea comaru* (Endl,) N.E. Br. (1908) Synonym: *Fockea gracilis* R.A.Dyer.

We also ask the applicant to provide the organism characteristics including life cycle, growth habits, and preferred habitat and climate. Evidence of presence in New Zealand prior to 29 July 1998 is necessary. This evidence may include a reference in a journal article, a list in a plant catalogue for sale, or an account from a person detailing that they have that organism. The applicant will need to include the names and addresses of people who are growing the species and a photo if possible of the species. We recommend that an expert identify the species. This should be someone who is recognised as being an expert (e.g., a member of Landcare Research) or a specialist group (e.g., the Cactus Society). The outcome of a determination of presence is that the Ministry of Agriculture and Forests (MAF) Biosecurity index is updated and you are free to import that organism subject to MAF phytosanitary requirements.

DO YOU NEED AN APPLICATION?

Check out the MAF biosecurity index <http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl>. If your species is listed then you are free to import it subject to MAF phytosanitary requirements. You are also free to import any hybrids, cultivars, or varieties as long as both parents are listed on this database. It is important that you state the lineage and full name on your import documentation otherwise it is likely to be detained by MAF at the border.

If you want to work on a GM organism, then search on ERMA New Zealand's database <http://www.ermanz.govt.nz/Search/Index.htm>. If your organism is listed (with the identical constructs) then you do not require an approval. Otherwise

an approval is required and you should make an application on the correct form. Forms can be obtained from the web site or from a staff member. We encourage you to contact a member of staff or look at our quick guide to making application before submitting an application so that we can give you advice on what you need to put in your application. There is also a quick guide to fees and charges including a schedule with details outlining what it will cost.

CONCLUSION

To determine what application you will need please consult the web site, the quick guides, or ring ERMA New Zealand and talk to an applications advisor. We encourage you to talk to us before making an application so that you can be sure that you have all the necessary information and that you are using the correct application form. Having this information sorted out at the beginning helps us to process your application faster and more efficiently. Pre application advice is free, once you have paid the initial fee we start charging our time out at $100 per hour.

Occupational Health And Safety: Description of How to Manage Health and Safety in the Workplace©

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THE HEALTH AND SAFETY IN EMPLOYMENT ACT 1992

The Health and Safety in Employment Act 1992 (HSE Act) was passed in October 1992 and became law on 1 April 1993. The HSE Acts principal objective is to prevent harm to employees while at work. The HSE Act promotes excellence in safety and health management and requires people in places of work to perform specific duties to ensure that people are not harmed as a result of work activities. Everyone in the place of work has a responsibility for health and safety.

MANAGING HEALTH AND SAFETY IN THE WORKPLACE

To comply with the HSE Act a company should have a health and safety management system, which documents the activities undertaken by that company to manage health and safety.

The basic elements in a health and safety management system are:

1) **Management Commitment.** Management needs to be committed to providing a safe working environment for their employees. This commitment should be formalised in writing (in a health and safety policy statement) and reinforced by positive actions.
   System Requirement. Formal health and safety policy statement in writing signed by the Manager.
2) **Hazard Identification and Control.** Employers are required to systematically identify all hazards in the place of work and implement the most practical method of controlling the identified hazards. Effective hazard identification should involve input from employees and can be