

CARTAGENA PROTOCOL ON BIOSAFETY
Actual cases of unintentional transboundary movement and
case studies related to existing mechanisms for emergency measures (Notif. 2015-002)
NEW ZEALAND SUBMISSION
August 2015

Please find below New Zealand's submission in response to part (a) of Notification 2015-002.

New Zealand imports seed for sowing from many countries, including those that also grow genetically modified (GM) varieties. Prior to importing GM varieties, or any other genetically modified organism (GMO) for intentional release into the environment, the GMO must first be assessed and approved for release in accordance with the Hazardous Substances and New Organisms (HSNO) Act 1996 (note: GMO has a specific meaning in that Act and Regulations). The Environmental Protection Authority (EPA) issues HSNO release approvals and the Ministry for Primary Industries (MPI) enforces compliance with any controls imposed on conditional release approvals.

To date (August 2015), there have been no HSNO approvals for the release into the environment of GM seed for sowing in New Zealand. The Act is enforced at the New Zealand border by MPI under section 28 of the Biosecurity Act 1993. Seed imported for sowing of species that have GM varieties commercialised overseas are sampled and tested for the presence of unapproved GMO seeds before they can be cleared for entry into New Zealand. MPI requires shipments of *Zea mays* (maize and sweetcorn), *Glycine max* (soybean), *Brassica napus* var *oleifera* (oilseed rape), and *Medicago sativa* (lucerne/alfafa) seed for sowing to be accompanied by a GM seed testing certificate that declares a non-GM status. The tests can only be performed at MPI-accredited laboratories. For other crops such as *Cucurbita pepo*, *Linum usitatissimum*, *Solanum tuberosum*, and *Arabidopsis thaliana*, assurance letters are required. For more information, please see MPI import requirements using the following link <https://www.mpi.govt.nz/importing/plants/seeds-for-sowing/steps-to-importing/>.

In the event of an unintentional transboundary movement of a GMO/LMO into New Zealand, the "incursion response" would be led by MPI (whether the GMO/LMO is intercepted at the border or detected after release into the environment).

Below are a list of cases where unintentional transboundary movements into or out of New Zealand of unapproved GM seed for sowing have occurred and action was taken by MPI (please see <http://www.biosecurity.govt.nz/regs/imports/plants/gmo/corn-maize> for further details on cases 1-5).

1. GM maize in 2000 - Product harvested and tested GM positive as part of normal Quality Control programme of the company. All positive material was destroyed.
2. GM maize in 2002 - A company informed MPI that their Quality Assurance tests had shown the presence of GM maize seeds in crops harvested in two localities in New Zealand earlier in the year. Under the supervision of MPI, all seeds were destroyed.
3. GM sweetcorn in 2003 - A GM presence was discovered in sweetcorn product exported to Japan from New Zealand. The presence was detected during a routine test undertaken as part of an industry-based Quality Assurance programme.

4. GM maize in 2004 - An audit of a testing laboratory in the USA indicated some potential issues with the way results were reported, and re-testing was undertaken for seed consignments imported the previous season. Re-testing found some of the seed was positive for a Food Standards Australia and New Zealand approved construct (FSANZ; <http://www.foodstandards.govt.nz>). The grain produced over the 2003-2004 growing season was harvested, dried, stored, and devitalised under MPI supervision.
5. GM sweetcorn in 2006-2007 - Two consignments of sweetcorn containing a very low presence of GM seed were erroneously cleared at the border. A query was raised by MPI and re-testing was arranged by the seed supplier. Agreement was reached that the seed should not have been imported, clearances were revoked, and the unplanted seed and young plants were destroyed.
6. GM zebrafish in 2007 - Unapproved GM zebrafish (or GloFish®) were imported into New Zealand (as a single consignment) in 2007 and sold to pet shops throughout the country. The MPI response team located and subsequently euthanased more than 200 fish (please see <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.130.9027&rep=rep1&type=pdf>). This case was reported as an illegal transboundary movement to the Biosafety Clearing House in 2010.

Further to this, it is important that domestic laboratories and/or educational institutions wanting to import GMOs into containment are aware of New Zealand's GMO regulatory-enforcement framework because import into a facility that is not an official "containment facility" is technically considered a release activity under HSNO legislation. Without prior HSNO approval, this would constitute a breach of the HSNO Act. The same can be said for the creation of GMOs within domestic laboratories or educational institutions that do not have an official "containment facility" status under New Zealand law. New Zealand has documented reports of both instances occurring; however, these domestic non-compliance cases presented low potential environment risk as these GMOs were contained.