



Risk Management Proposal:

Removal of additional declarations for
Gymnosporangium clavipes and *Operophtera brumata*
from the import health standard for fresh apples (*Malus
sylvestris* var. *domestica*) from the United States of
America (States of California & Washington)

FOR PUBLIC CONSULTATION

July 2014

Plant Imports
Plants, Food & Environment
Ministry for Primary Industries
Pastoral House
25 The Terrace
PO Box 2526
Wellington 6140
New Zealand
Tel: +64 4 894 0100
Fax: +64 4 894 0662
Email: plantimports@mpi.govt.nz

Contents	Page
Purpose	1
Background	1
Commodity description	1
Trade	1
International setting	2
Objective	2
Assessment	2
<i>Gymnosporangium clavipes</i> (Cooke & Peck)	2
<i>Operophtera brumata</i> (Linnaeus)	3
Feasibility & practicality of measures	4
References	5

Purpose

1. The purpose of this document is to:
 - Outline the proposed amendment to the import requirements for fresh apples (*Malus sylvestris* var. *domestica*) from the United States of America (USA) (States of California and Washington); and
 - To seek stakeholder feedback on the proposed amendment to import requirements.

Background

2. The Ministry for Primary Industries (MPI) issued the import health standard (IHS) for fresh apples from the USA (States of California/Washington) prior to 2000.
3. The current IHS for USA apples (<http://www.biosecurity.govt.nz/files/ih/152-02.pdf>) requires apples to undergo appropriate pest control activities that are effective against:
Conotrachelus nenuphar
Gymnosporangium clavipes
Operophtera brumata

OR

be sourced from an area free (verified by an official detection survey) from:

Conotrachelus nenuphar
Gymnosporangium clavipes
Operophtera brumata

In addition, apples must be sourced from fruit fly pest free areas and be inspected and found free of live visually detectable quarantine/regulated pests.

4. In order to certify shipments of apples to New Zealand with respect to the additional declaration for *G. clavipes* and *O. brumata*, the United States Department's of Agriculture (USDA) requires that packers:
 - a. Provide spray records for export fruit lots which show that corresponding production sites were treated with insecticides and fungicides to control *G. clavipes* and *O. brumata*; and
 - b. File an affidavit form attesting to the use of appropriate pest control activities for *G. clavipes* and *O. brumata*.
5. The USDA has requested that MPI consider removing the additional declaration requirements for *G. clavipes* and *O. brumata* based on the assertion that *G. clavipes* and *O. brumata* are unlikely to follow the export pathway.

COMMODITY DESCRIPTION

6. Fresh *Malus sylvestris* var. *domestica* for human consumption is defined as commercially produced mature apple fruit with a small portion of stem attached but not including leaves.

TRADE

7. A steady volume of fresh apples are imported into New Zealand from the USA from late October to mid-March annually. Table 1 shows the volume (tons) of fresh apples imported since 2000.

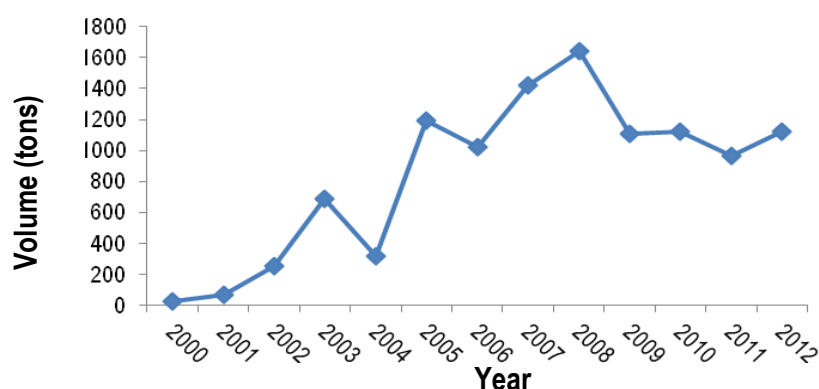


Table 1: Volume of fresh apples imported into New Zealand from the USA since 2000. (Source: Global trade atlas accessed March 2014)

INTERNATIONAL SETTING

8. Where possible, phytosanitary measures are aligned with international standards, guidelines, and recommendations as per New Zealand's obligations under Article 3.1 of the World Trade Organisation (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement, WTO 1995) and section 23(4)(c) of the Biosecurity Act 1993.
9. The SPS Agreement states that phytosanitary measures must not discriminate unfairly between countries or between imported or domestically produced goods, and where there is a choice of phytosanitary measures to reduce risk to an acceptable level, WTO members must select the least trade restrictive measure.
10. In addition, Article V of the *International Plant Protection Convention* (IPPC, 1997) states that any requirements for additional declarations shall be limited to those technically justified (IPPC, 1997).

Objective

11. The objective of this proposed amendment to the IHS is to effectively and appropriately manage the risk of regulated pests associated with the importation of fresh apples from the USA (States of California and Washington) in a way that is consistent with New Zealand's domestic legislation (Biosecurity Act 1993) and international obligations.

Assessment

GYMNOSPORANGIUM CLAVIPES (COOKE & PECK)

12. The main host of *G. clavipes* is quince (*Cydonia oblonga*), but apples (*Malus domestica*) can also become infected by the rust. The rust requires *Juniperus* and rosaceous hosts of the subfamily Pomoideae to complete its life cycle. Under natural conditions, spread of *G. clavipes* is by basidiospore dispersal to apple and quince, and by wind-borne aeciospores to *Juniperus communis* or *J. virginiana* (EPPO 2013, Farr and Rossman 2009).
13. The plant part normally infected by *G. clavipes* is fruit. The rust causes apples to fall prematurely or abnormalities in fruit shape (EPPO 1996, Conway & Andrews 1986).
14. *G. clavipes* is present in the States of California and Washington (CABI 2001) but has not been recorded from *Malus* in either State (DAFF 2009, Farr and Rossman 2009). The rust has been recorded from *Malus* in the Eastern USA (Farr and Rossman 2009).

15. A European and Mediterranean Plant Protection Organization (EPPO) risk assessment concluded that it is very unlikely that apples infected with *G. clavipes* would be harvested or meet quality standards for export (EPPO 1996).
16. Export apple orchards in the Western USA are routinely treated for the control of powdery mildew which is likely to control *G. clavipes* (USDA *pers. comm.*, 2013).
17. Apple packhouses wash, brush, rinse and may apply wax to apples after harvest as part of routine commercial practise (DAFF 2009). These processes assist in extending the shelf life of fruit by removing/reducing the presence of fungal surface contaminants (DAFF 2009).
18. The key points supporting the removal of the additional declaration for *G. clavipes* from the IHS for apples from the USA (States of Washington and California) are:
 - a. Infection by the fungus results in fruit drop or malformed fruit and are therefore unlikely to be harvested or meet quality grade standards for export;
 - b. There are no records of *G. clavipes* being intercepted on fresh apples from the USA in MPI's databases (MPI Quancargo import database, accessed March 2014; MPI PHEL identifications database, accessed February 2013), nor are there records of the pest being introduced into Europe EPPO (2014);

OPEROPHTERA BRUMATA (LINNAEUS)

19. The winter moth, *O. brumata* (Lepidoptera: Geometridae) is present in Washington, but is not recorded from California (EPPO 2013).
20. The moth is a pest of apples, blueberries (*Vaccinium*spp.) and many other deciduous plants and can severely reduce yields and defoliate hosts. It is recorded from more than 100 different host plants with the preferred hosts being oaks (*Quercus*), poplar (*Populus*), hornbeam (*Carpinus betulus*), elm (*Ulmus*), fruit trees (*Malus*, *Prunus*, *Pyrus*) and maple (*Acer*) (Simmons *et al.* 2012).
21. Adult female moths lay eggs in crevices in the bark of apple trees during the winter (December-February). The eggs hatch in the spring (March) and larvae feed on flower and foliar buds and developing fruitlets. In early summer (June), larvae drop to the ground and pupate in the soil. The adults emerge in late autumn (November) and early winter (December) to mate and lay eggs (UMass Extension 2008). The moth has one generation per year in the USA (Simmons *et al.* 2012).
22. The moth is a defoliator and also feeds on developing fruitlets (Simmons *et al.* 2012). Damaged fruit either drops prematurely or develops into malformed fruits with corky scars (Muir 2012, EPPO 1999).
23. Apples are harvested from August through to early November depending on variety (Smith 2014).
24. Orchards are routinely treated for control of leafrollers (Bell *et al.* 2013) as part of routine commercial practise and these pesticides are likely to control *O. brumata*.
25. The key points supporting the removal of the additional declaration for *O. brumata* from the IHS for apples from the USA (States of Washington and California) are:

- a. Apple harvest begins after larvae pupate in the soil and before adults emerge in late November. Therefore, eggs or actively feeding larvae are unlikely to be associated with fruit during the harvest period;
- b. Damaged fruit that remains on trees until harvest are unlikely to meet export quality standards due to malformation or scarring caused by *O. brumata*;
- c. There are no records of *O. brumata* adults or larvae, or leafrollers, being intercepted on fresh apples from the USA in MPI's databases (MPI Quancargo import database, accessed March 2014; MPI PHEL identifications database, download 21/02/2013) nor are there records of the pest being introduced into Europe EPPO (2014);

Feasibility & practicality of measures

- 26. The removal of the additional declarations for *G. clavipes* and *O. brumata* is unlikely to increase biosecurity risk to New Zealand, as commercial pest control activities currently undertaken by USA apple growers are likely to continue.
- 27. The main impact of the removal of the additional declarations will be a reduction in compliance costs for USA growers.

Proposed IHS requirements

- 28. It is proposed that the additional declarations for *G. clavipes* and *O. brumata* are removed from the IHS for fresh apples (*Malus sylvestris* var. *domestica*) from the USA (States of California and Washington). However, both pests will remain categorised as regulated and if intercepted the pathway will be immediately reviewed and specific measures applied and recorded in the IHS.
- 29. It is proposed that the following additional declarations are required for apples (*M. sylvestris* var. *domestica*) from the USA (States of California and Washington):

The apples in this consignment have:

- (i) been inspected in accordance with appropriate official procedures and found to be free from any visually detectable quarantine pests, specified by the New Zealand Ministry for Primary Industries.

AND

- (ii) undergone appropriate pest control activities that are effective against *Conotrachelus nenuphar*

OR

been sourced from an area free (verified by an official detection survey) from *Conotrachelus nenuphar*

AND

- (iii) treated in accordance with Appendix 1 (b) or 1 (d) of the Workplan between the New Zealand Ministry for Primary Industries and the United States Department of Agriculture, Animal and Plant Health Inspection Service concerning the access of host material of fruit fly species of economic significance into New Zealand from the United States of America.

References

- Bell, N., Kaiser, C., Shearer, P.W. 2013. Apple Pests. Pacific Northwest Insect Management Handbook. <http://pnwhandbooks.org/insect/tree-fruit/apple>.
- Biosecurity Act 1993.
<http://www.legislation.govt.nz/act/public/1993/0095/latest/DLM314623.html>
- CABI 2001. *Gymnosporangium clavipes*. [Distribution map]. Distribution Maps of Plant Diseases, 2001, April (Edition 3), Map 121.
- Conway, K.E., Andrews, M.W. 1986. 39. Quince Rust. *In* Diseases of Trees in the Great Plains (Technical Coordinators J.W. Riffle & G.W. Peterson), United States Department of Agriculture, Forest Service, General Technical Report RM-129.
- DAFF 2009. Draft Import Risk Analysis Report for Fresh Apple Fruit from the United States of America Pacific Northwest States, http://www.daff.gov.au/ba/ira/current-plant/apples_usa
- EPPO 1996. Datasheet on *G. clavipes*
http://www.eppo.int/QUARANTINE/fungi/Gymnosporangium_clavipes/GYMNCL_ds.pdf
- EPPO 1999. Guidelines on good plant protection practice: Pome fruits. EPPO Standards PP 2/18(1).
- EPPO, 2013. PQR database. Paris, France: European and Mediterranean Plant Protection Organization. <http://www.eppo.org>
- EPPO, 2014. Archives of the EPPO Reporting Service,- Part I: 2014 back to 1991, European and Mediterranean Plant Protection Organisation reports online:
http://archives.eppo.org/EPPOReporting/Reporting_Archives.htm.
- Farr, D.F., Rossman, A.Y. 2009. Fungal Databases, Systematic Mycology and Microbiology Laboratory, ARS, USDA. <http://nt.ars-grin.gov/fungaldatabases/> (Accessed March 2014).
- IPPC 1997. International Plant Protection Convention.
- Muir, K. 2012. Winter moth.
<http://www.kenmuir.co.uk/image/data/pdf/Fact%20Sheets/WINTER%20MOTH.pdf>
- Simmons, M.J., Dodds, K.J., Elkinton, J.S. 2012. USDA Forest Service Pest Alert: Winter moth.
- Smith, T.J. 2014. Overview of Tree Fruit Production in The Pacific Northwest United States of America and Southern British Columbia, Canada. Washington State University Extension.
http://county.wsu.edu/chelan-douglas/agriculture/treefruit/Pages/Tree_Fruit_Overview.aspx
- UMass Extension 2008. The winter moth.
<http://www.massnrc.org/pests/pestFAQsheets/winter%20moth.html>
- WTO 1995. Sanitary and Phytosanitary Agreement, Full Text. Online:
www.WTO.Org/English/Tratop_E/Sps_E/Spsagr_E.Htm