

RMD-18-02: Pest Risk Management Document – Deregulation of *Cydia latiferreana* (filbertworm)

(Original)

Preface

As described by the International Plant Protection Convention (IPPC), Pest Risk Analysis (PRA) includes three stages: initiation, pest risk assessment and pest risk management. Initiating the PRA process involves identifying pests and pathways of concern and defining the PRA area. Pest risk assessment provides the scientific basis for the overall management of risk. Pest risk management is the process of identifying and evaluating potential mitigation measures which may be applied to reduce the identified pest risk to acceptable levels and selecting appropriate measures.

This Risk Management Document (RMD) includes a summary of the findings of a pest risk assessment and records the pest risk management process for the identified issue. It is consistent with the principles, terminology and guidelines provided in the IPPC standards for pest risk analysis which may be found at the [International Plant Protection Convention website](http://www.ippc.int).

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Executive Summary

Cydia latiferreana is an insect that is native to North America. Prior to 1995, phytosanitary import requirements and domestic movement requirements for *Corylus* spp. nuts, seeds and nursery stock were in place to mitigate the risk of introducing this pest to uninfested areas of British Columbia. In 1995, this pest was included in Schedule II of the *Plant Protection Regulations* to modernize requirements.

Cydia latiferreana was reported for the first time in British Columbia in 1952 (Silver and Ross undated) and is now considered to be established in the province (Silver and Ross undated, Clements *et al.* 2011, Otvos *et al.* 2012). *Cydia latiferreana* can no longer be considered a regulated pest in Canada due to its widespread distribution. The CFIA will take the necessary steps to deregulate this pest, including removing it from Schedule II of the *Plant Protection Regulations* and from the List of Pests Regulated by Canada.

1.0 Purpose

The purpose of this document is to record risk management considerations and to inform stakeholders of the CFIA's decision to deregulate *Cydia latiferreana* (Walsingham).

2.0 Scope

This RMD includes a summary of the findings of the pest risk assessment and records the Canadian Food Inspection Agency's (CFIA's) decision to deregulate *C. latiferreana*.

Information pertaining to current import requirements for specific plants or plant products may be obtained from the Automated Import Reference System (www.inspection.gc.ca/airs).

3.0 Definitions, abbreviations and acronyms

Definitions of terms used in this document can be found in the [International Standard for Phytosanitary Measures 5: Glossary of phytosanitary terms](#) or the [Plant Health Glossary of Terms](#).

4.0 Background

Cydia latiferreana is native to North America and is found in association with many wild and cultivated nuts, but is particularly common in acorns (*Quercus* spp.) and hazelnuts (*Corylus* spp.) (Wiman and Bell 2017).

This insect is a common pest of hazelnut production in the states of Oregon and Washington. A 2016 survey of the Fraser Valley conducted by British Columbia's Ministry of Agriculture, Plant Health Unit, confirmed it is also present in British Columbia, but at a level below the Economic Injury Level, thus no treatment is required (BCAGRI 2016). Most of the commercial hazelnut production in Canada is in the province of British Columbia. The majority of this acreage is in the Fraser Valley, although there are some small orchards on Vancouver Island and in the Interior of British Columbia.

Cydia latiferreana has been considered a quarantine pest of Canada for many years. It was included in the List of Pests Regulated by Canada and in Schedule II of the *Plant Protection Regulations* (SOR/95-212) in 1995. The objective of these regulations was to mitigate the risk of introducing this insect to uninfested areas of British Columbia. These regulations restrict the importation and domestic movement of hazelnuts and *Corylus* spp. nursery stock into British Columbia. The phytosanitary restrictions on *Corylus* spp. nursery stock have made it difficult for producers to obtain new cultivars, replant orchards and expand hazelnut production in British Columbia.

5.0 Pest Risk Assessment Summary

The phytosanitary risk presented by *C. latiferreana* has been assessed by the CFIA on two occasions. The first assessment was completed in 1996 (PRA 1996-15), and was reviewed and updated in 2017 (PRA 2017-71).

5.1 Distribution

Filbertworm is native to North America and is now considered to be widespread in Canada, the United States and northern Mexico (CFIA 1996; Gilligan and Epstein 2014). Human-assisted movement of infested host material is the main pathway for this insect to spread over longer distances. The insect spreads locally by adult flight (CFIA 1996).

Hazelnut orchards in British Columbia's Fraser Valley have not seen significant damage from this pest in the past, though *C. latiferreana* has been detected in this area and is known to be present in other parts of the province (BCAGRI 2016). In particular, it is a known pest of *Quercus garryana* (Garry oak) on Vancouver Island and the Gulf Islands (Otvos *et al.* 2012).

5.2 Pathways

Host plants include: *Castanea* spp. (chestnut), *Corylus* spp. (hazelnut), *Fagus* spp. (beech), *Juglans* spp. (walnut), *Prunus* spp. (stone fruit), *Punica* spp. (pomegranate) and *Quercus* spp. (oak). Fruits, nuts, used containers, and fruit- and nut-bearing plants, are potential pathways for human assisted spread (CFIA 1996).

5.3 Potential Economic and Environmental Consequences

Cydia latiferreana is a key pest in hazelnut orchards in Oregon and Washington (Wiman and Bell 2017). Damage is caused by larvae tunneling into the nuts to feed. Damaged nuts may drop early, in advance of ripening, although larvae may also be present in mature nuts at harvest. If left untreated, damage can range from 12% to 37%; however, with the use of appropriate pest management practices, damage can be reduced (AliNiasee 1983). *Cydia latiferreana* does not affect the vitality of the host tree (Wiman and Bell 2017). *Cydia latiferreana* has also been reported to infest acorns and is considered to be an impediment to the preservation and recovery of the Garry oak ecosystem in the Pacific Northwest region (Otvos *et al.* 2012).

Economic and environmental consequences of deregulating *C. latiferreana* are expected to be minimal, as the insect is already widely distributed in Canada.

5.4 Lifecycle

Cydia latiferreana generally has one generation per year and is capable of overwintering as diapausing larvae in silk cocoons. Adults emerge from the middle of June until the end of October. Emergence is synchronized with the formation and development of the filbert nut. Mating takes place soon after emergence and eggs are laid singly, generally on leaves close to nuts. The eggs hatch in 8-10 days and the larvae tunnel through the husk and into the nut where they feed. Larvae mature in 3-4 weeks, leave the nut and form a cocoon where they spend the winter on the ground or in cracks and crevices on trees. Some larvae may overwinter 2-5 cm beneath the soil surface (CFIA 1996).

6.0 Risk Management Considerations

6.1 Standards of the International Plant Protection Convention

In order to meet international standards and be considered a quarantine pest, an organism must be a pest of potential economic importance that is not yet present or is present, but not widely distributed, and being officially controlled (IPPC 2017). *Cydia latiferreana* no longer qualifies as a quarantine pest in Canada because it is widespread. Although CFIA regulates this pest's pathways into British Columbia, this pest is not under official control in the province. In addition, continued enforcement of import and domestic movement requirements to prevent further introduction and spread of *C. latiferreana* in Canada is no longer technically justified considering that the pest is already widespread.

6.2 Eradication

Eradication of *C. latiferreana* in British Columbia is not a viable option because it has been found in association with wild host plants (e.g., hazelnut and Garry oak), landscape trees and commercial hazelnut orchards. Therefore, eradication would be impractical and costly, with a low probability of success.

6.3 Potential Economic and Environmental Consequences

Cydia latiferreana can be successfully managed in hazelnut orchards using pest surveillance in combination with cultural and chemical control measures. Pheromone traps may be used to determine when adults are present and to ensure insecticides are applied at the appropriate times. Gathering and destroying prematurely fallen nuts which may contain insect larvae, and cleaning packing sheds and reusable containers may also help to reduce population levels.

Because this insect is already present in the main hazelnut production areas of British Columbia and is not subject to official control, deregulation is expected to have a minimal impact on the spread of *C. latiferreana* within the province.

Cydia latiferreana is native to North America and is already present on wild host trees in Canada. In British Columbia, it is a known pest of Garry oak acorns, *Quercus garryana*, on Vancouver Island, and the Gulf Islands. Consequently, deregulation is not expected to have a significant impact on the environment.

6.4 International Trade

Cydia latiferreana is native and widespread in the U.S. and northern Mexico and has not been identified as a pest of quarantine concern by any country outside of North America. Neither USDA-APHIS nor any of the U.S. state plant health agencies have regulations in place targeting this pest. Deregulation of this pest is not expected to have an impact on export trade with the U.S. or Mexico.

7.0 Risk Management Decision

The CFIA will proceed with deregulation of *C. latiferreana*. This decision is based on the fact that *C. latiferreana* is native to North America, widespread in Canada and not subject to official control within the province of British Columbia. Eradication of this insect would be impractical and costly with a low probability of success. Effective methods for managing this pest at the producer level are available. *Cydia latiferreana* no longer meets the International Plant Protection Convention definition of a quarantine pest and continued enforcement of import and domestic requirements is no longer technically justified.

The CFIA intends to remove *C. latiferreana* from Schedule II of the *Plant Protection Regulations*.

Until this regulatory change is made, the following changes will serve to functionally deregulate *C. latiferreana*. The CFIA will revoke the phytosanitary import requirements for *Corylus* spp. nuts, as described in directive D-95-08: *Phytosanitary import requirements for fresh temperate fruits and tree nuts*. In addition, the CFIA will not enforce item 14 (10) of Schedule II of the *Plant Protection Regulations* as it pertains to the domestic movement of filbert (*Corylus* spp.).

As part of the deregulation process, *C. latiferrena* will be removed from the List of Pests Regulated by Canada and the Automated Import Reference System (AIRS) will be updated to reflect that the importation of articles of *Corylus* spp. are no longer subject to the requirements described in directive D-95-08. Trading partners will be notified through the World Trade Organization that *C. latiferrena* is no longer a pest regulated by Canada.

8.0 References

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