

Request to Remove Fumigation Requirements for Nursery Fruit Trees that are Shipped into British Columbia, Directive D-87-29: Import Requirements; and Domestic - 7: Domestic Requirements

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Introduction

In order to maintain economically viable tree fruit orchards, producers must steadily renew the tree plantings in their orchards with newer varieties. However, tree fruit orchardists in British Columbia have been experiencing ongoing shortages of nursery stock for new plantings in peach, nectarine, pear, and plum. A contributing factor to this shortage is the requirement for hosts and carriers of Oriental fruit moth *Grapholita molesta* from infested areas of Canada, the U.S. and other countries to require fumigation before they may be shipped into BC (Directive D-87-29: Import Requirements; and Domestic - 7: Domestic Requirements).

These fumigation requirements have resulted in nursery stock shortages due to the following challenges:

1. Methyl bromide is used in the fumigation of nursery trees and it is hazardous to workers and to the environment (Class 1 ozone depleting substance). Tree nursery operators have become reluctant to work with methyl bromide.
2. Inspectors in the United States have been stricter in enforcing requirements that old fumigation rooms be properly sealed. These old structures would each cost over \$100,000 to replace. The result is that the nursery industry no longer has fumigation rooms that meet required safety standards.

An alternative solution to the fumigation challenge would be to switch to a Systems Approach, as described in Directive D-99-05:

“A systems approach has been shown to be an effective alternative means of mitigating the risk of Oriental fruit moth being introduced into Canada on stone fruit. The National Plant Protection Organization developed a systems approach program involving field controls and packing house inspections (Oriental Fruit Moth Certification Program)”.

Hosts of Oriental Fruit Moth (OFM)

There are several hosts of Oriental fruit moth. Although the primary hosts are peach and nectarine, it will also attack quince, apricot, apple, plum, cherry, pear, rose and flowering cherry. While common in some eastern apple-growing districts, infestations of apple are rare in the Northwest. Oriental fruit moth has not been detected in British Columbia.

Management of Oriental Fruit Moth

In the event that Oriental Fruit Moth is detected in BC, the following methods are available to control OFM, including:

1. Mating Disruption

Mating disruption has proven to be a successful control for oriental fruit moth. There are two pheromone products that are currently used for Oriental Fruit Moth: Isomate CM/OFM TT and Isomate OFM TT.

2. Biological Control

The braconid wasp, *Macrocentrus ancylivorus*, which is native to North America, is a leafroller parasite that has adapted to the oriental fruit moth. Females lay eggs in young Oriental Fruit Moth larvae. The larva of the parasitoid larva develops and matures when the host cocoons.

3. Tree Applications

There are several effective pest control products for Oriental Fruit Moth that are registered in Canada, as listed below:

Oriental Fruit Moth (OFM) Pest Control Products Registered in Canada

Product	Reg #	Group #	Registered for OFM in British Columbia	Registered for OFM in Ontario Only	Registered on the Following Crops			
					Apple	Pear	Stone Fruit	Peach
Isomate CM/OFM TT	29352	NC	Yes		Yes	Yes	Yes	Yes
Isomate OFM TT	31419	NC	Yes		Yes	Yes	Yes	Yes
Madex HP	34116	NC	Yes		Yes	Yes	Yes	Yes
Lorsban	20944	1B	No	Yes	No	No	No	Yes
Labamba / Matador	33576 24984	3	Yes		No	No	No	Yes
Calypso / Theme	28429 34379	4	Yes		Yes	No	No	No
Assail 70 / Aceta 70	27128 33298	4	No	Yes	Yes	Yes	Yes	Yes
Cormoran	33353	4 + 15	Yes		Yes	No	Yes	Yes
TwinGuard	31442	4C + 5	Yes		Yes	Yes	Yes	Yes
Delegate	28778	5	Yes		Yes	Yes	Yes	Yes
Minecto Pro	33023	6 + 28	Yes		Yes	Yes	No	No
Rimon	28515	15	Yes		Yes	No	Yes	Yes
Intrepid	27786	18	Yes		Yes	Yes	No	Yes
Altacor / Exirel	28981 30895	28	Yes		Yes	Yes	Yes	Yes
Harvanta	32889	28	Yes		Yes	Yes	Yes	Yes
Vayego	33711	28	Yes		Yes	Yes	Yes	Yes

Should OFM be introduced into the Okanagan Valley, there are 16 pest control products that are effective for OFM control or suppression, though 2 of those are registered only in Ontario for OFM control. Minor use applications would be required for these 2 products if OFM becomes established in BC.

Conclusion

Orchardists in BC face increasing challenges due to a variety of factors, including: rising production costs, marketing challenges, climate change, and a shortage of affordable agricultural land. The shortage of nursery trees is an additional difficulty that BC Orchardists have in tree fruit production.

'Systems Approach' could replace the outmoded fumigation requirement for imported trees, while continuing to protect Okanagan orchards from the risk of introduction of Oriental Fruit Moth; allow orchardists to continue producing high value, quality fruit and continue to contribute to food security in Canada.