Olive lace bug: Biosecurity procedures for all WA olive properties

General
The Biosecurity protocols listed in the following apply only to olive lace bug, *Froggattia olivinia* (OLB). It is now accepted that OLB is dispersed in Western Australia to the extent that it cannot be eradicated. However, OLB still needs to be managed in order to limit its spread and damage. In order to assist in management of this pest, the Department of Agriculture and Food (DAFWA), in consultation with the Western Australian olive industry, has drawn up the following protocols for both infested properties as well as those currently free of OLB.

Measures applying to all properties
Please note: measures only applicable to properties with infested groves are underlined.

1. Record keeping

Record details (date, name, contacts) of all workers, contractors and visitors entering a property (indicate specific grove areas visited) as well as the work performed.

Record details of all major operations such as spraying, pruning and fertilising. This will also be useful for the development of a quality assurance program for the property in future.

Establish records based on a ***Grove Plan*** of the property so that blocks of varieties are marked and recorded (age of trees etc.) and operations such as spraying can be documented in the spray schedule and monitoring plan. A Grove Plan is a fundamental requirement for an approved supplier program such as *Olive Care,* or for a Quality Assurance plan. Owners or managers will be required to participate in such a plan in order to sell olives from their property in the future.

2. Management

2.1 General

Maintain orchard hygiene, that is, weed control, other pest and disease control, and vermin control.

Ensure olive trees receive adequate water and fertiliser to maintain growth. Poorly-growing trees are often more susceptible to insect and disease attack.

2.2 Security

Preferably, a property entry-point (for incoming visitors/vehicles) should be via one major roadway. All property owners are encouraged to place a Biosecurity sign at the entrance way near the roadside (which may also warn against unauthorised entry).

2.3 Pruning, tying-up and staking

It would be desirable that all growers have a copy of the DAFWA olive lace bug Farmnote and use the information in it to familiarise their workers with the symptoms of OLB damage and how to identify the OLB insect. Ensure workers are instructed in the Biosecurity measures described below, during pruning and other operations. Ask

them to report to the owner any signs of OLB-infested trees, or other evidence of OLB, and mark the locations on the Grove Plan for the owner. The owner or manager will be required to provide these details to the Department of Agriculture and Food (see list of contacts at the end of this document).

Advise workers on precautions to avoid transferring OLB to other olive groves or trees in other areas such as home gardens or street verges. The wearing of white or lighter coloured clothing makes it easier to see OLB on clothing items. Shake clothing before leaving the property.

In infested groves, and also for trees which are within 20 m of the infested block, collect all prunings (from the infested block and those prunings from trees which are within 20 m of the infested block) and burn them in an area where practicable to do so. Do not take these prunings into other blocks.

As a general biosecurity rule, it is a good practice when pruning in the grove, to destroy the prunings as soon as possible after pruning (for example, by mulching, slashing or burning), and to not remove the prunings from the block where the pruning is done.

3. Spraying

For those properties where OLB infestation is confirmed, chemicals used for controlling OLB must be registered for that purpose, or they are chemicals which have permits approved for use on olives. Property owners should obtain copies of relevant permits (available from DAFWA or the Australian Pesticides & Veterinary Medicines Authority [APVMA]).

Where spraying is targeted at OLB use one of these pesticides:
a) Fenthion (various trade names) which contains 550 EC (emulsifiable concentrate) should be applied at 75 mL/100 L (PER 9663).
b) Bifenthrin (various trade names) containing 100 EC to be applied at 50 mL/100 L water, or 80 SC (suspension concentrate) to be applied at 60 mL/100 L (PER 9663). Note that both of these products are registered specifically for controlling OLB on non-bearing trees. The permits for these chemicals (fenthion and bifenthrin) will lapse in March 2009, before which time an application for renewal (for use in the olive industry) will need to be submitted. Contact DAFWA for current information.
c) An insecticidal soap may also be used (PER 6460). Soap sprays have questionable efficacy and are probably only useful on very young insects (1^{st} to 2^{nd} instar nymphs).

For all products, a thorough coverage to run-off of both sides of leaves is required.

Owners not carrying out the spraying operations themselves, should engage a qualified contractor and advise him/her of the infestation of OLB and the restrictions required to avoid spreading OLB.

OLB Biosecurity Checklist for Contractors

- Contractor to wash down machinery with high pressure water hose and inspect for OLB on it (machinery) before it leaves the property. Other machinery, for example, utes and cars to also be inspected but kept out of the grove if possible, or hosed down before leaving the property.
- Spray application details to be recorded in Grove Application Record (or spray diary).

- Observe withholding periods for olive fruit harvest (if applicable).

- Observe a safe re-entry period for workers. The contractor should place signage on sprayed areas or enter details on a board so that workers know which area has been sprayed, when it was sprayed and a safe time for re-entry to olive groves.

- If chemicals are to be stored on site, store in a secure building, and provide washing facilities for workers in case of contact with or contamination by the chemical. Material Safety Data Sheets for chemicals used should be available on site if the owners are not present.

After spraying, monitor to confirm the success of the application or the need to re-treat the affected area. Even if no live OLB can be seen, the eggs which are laid within the leaf tissue may hatch after the insecticide loses its activity. For extra security to reduce the chance of spread from an infested property, ensure harvested olives are covered when being transported and process as soon as possible. Advise your processor if the olives are from an OLB-infested property.

4. Harvesting (if applicable)

Do not spray fruit-bearing trees during the period from flowering to harvest. Ensure that harvesting has been completed before spraying, and get qualified scouts to inspect the harvest for freedom of OLB on the property.

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