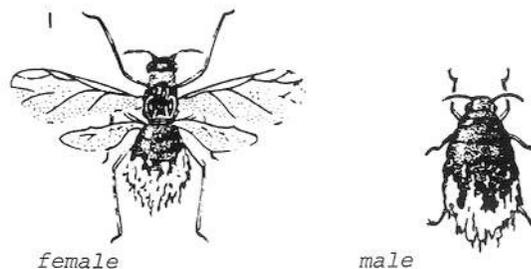


THE WOOLLY APPLE APHID *ERIOSOMA LANIGERUM*

The woolly apple aphid is primarily a pest of apple, but pear, hawthorn, and mountain ash are occasionally attacked. It can be a serious pest.

Description

A reddish body entirely hidden by white, long, wool-like wax. The cornicles, 2 protrusions from the rear of the abdomen, characteristic of most aphids, are essentially absent in this species. The antennae are 5 segmented in stem mothers to 6 segmented in winged forms. The wings have a single branched media vein. Males are wingless.



Behavior

All forms of woolly aphids are bark feeders living on roots or limbs of the tree hosts, causing large warty excrescences, which interfere with tree growth and may kill young trees.

Association with Canker

Where perennial canker fungus attacks host plants, the attack of woolly aphids at the canker margins injures tissue, prevents healing, and permits entry of disease organisms.

Life Cycle

Aphids overwinter on the roots or, if winters are mild, on the upper portion of host trees. Aphids feed on trunks, limbs or twigs, particularly in damaged spots or where bark is tender. Twigs become swollen and knotted from attack. Roots also swell and appear nodular. The aphid colonies appear as bluish-white patches. The waxy coating contains honeydew excreted by the insects.

Heavy infestations are likely following mild winters. Aphids multiply rapidly and winged forms establish new colonies on other host trees. Young aphids are also carried from tree to tree by the

wind. Root attack is not common in arid, sandy areas of the Northwest, but is found in heavy soils which may crack in summer allowing aphids to move about freely.

Natural Control

Cold winters eliminate most above-ground and some root hibernating aphids. A parasite, *Aphelinus moli*, often keeps the aphid in check. Parasitized aphids are black and some contain the exit holes of the parasites. Predators including ladybird beetles, syrphid fly larvae, and green lacewings can completely destroy aphid colonies, but the woolly masses will remain.

Chemical Control

The following insecticides may be used for woolly aphid control. Follow label directions for effective and safe use.

Thiodan 50 WP,	.75 lb./100 gallons of water
Diazinon 50 WP,	1.25 lbs./ 100 gallons of water

In warmer regions where these aphids overwinter on aerial portions of hosts, dormant oil or oil/phosphate insecticide sprays are effective. Where trees have a history of attack both dormant and summer sprays should be used.

Additional reference:

WOOLLY APPLE APHID COLONIZATION ON *Malus* CULTIVARS. By: J.N. Cummins, P.L. Forsline, and J.D. Mackenzie. J. Amer. Soc. Hort. Sci. 106:26-30. 1981.

391 apple clones were evaluated for woolly apple aphid susceptibility. *Malus pumila*, a common rootstock, is highly susceptible to woolly apple aphid infestations. Malling-Merton series rootstocks showed resistance (MM-106 had a low infestation). All of the mailing rootstock series had from moderate to very high infestations. The species *Malus hupehensis* and *M. tschonoskii* are highly resistant or immune. *M. baccata* and *M. yunnanensis* showed considerable resistance. *M. sargentii* and *M. sieboldii* were both quite susceptible to the pest.

Pesticide Use - Due to constantly changing laws and regulations, no liability for the suggested use of chemicals in this Newsletter is assumed by the ONW Newsletter. Pesticides should be applied according to label directions on the pesticide container.

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