



Toronto Master Gardeners

Toronto Master Gardeners are trained volunteers dedicated to providing horticultural information to the public.

For answers to horticultural questions contact the Toronto Master Gardeners' Info Line at the Toronto Botanical Garden (416) 397-1345 (Mon. to Fri. 10 a.m. to 1 p.m. and Sat., Sun. and Holidays noon to 3 p.m.) or our website, www.questions.torontomastergardeners.ca.

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Toronto Botanical Garden

Toronto Botanical Garden is a volunteer-based, charitable organization whose purpose is to inspire passion, respect and understanding of gardening, horticulture, the natural landscape and a healthy environment.

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Mealy Bugs

Description

Mealy bugs are cottony-white, fluffy, scale-like insects about 1/10 to 1/4 inch long. They have the appearance of tiny pieces of cotton on a plant, hugging growing tips, stems, leaves, leaf axils and the fruits of plants. They are elliptical in shape with short waxy spines. Aside from their strange appearance, mealy bugs are not really much different from aphids. Mealy bugs have sucking mouthparts.

We have only a few species of mealy bugs in Canada, the most common being the Comstock (Pseudococcus comstocki) and the Longtailed Mealy Bug (Pseudococcus longispinus).

Symptoms of Mealy Bug Infestation

Mealy bugs damage plants by removing plant juices and by spreading diseases. They feed on all parts of a plant, particularly new growth. Yellowing of leaves or leaf drop may be a symptom of an infestation.

They can be observed particularly on growing tips or on leaves that join stems or along leaf veins.

Like the aphid, mealy bugs excrete a honeydew substance over plant surfaces. Sometimes a secondary fungus called black sooty mold grows on the honeydew causing the plant foliage to look like it is covered with chimney soot.

Plants Affected

Mealy bugs feed on a wide range of plants including gardenia, chrysanthemum, cactus, poinsettia, orchid, African violet, palm, jade plant, geranium, primula, bird of paradise,

heliotrope, gladiolus, Boston ivy, Virginia creeper vine, coleus, begonia, fern, grape, apple, peach, pear, plum, maples and yew, just to name a few.

Life Cycle and Habits

Mealy bugs can reproduce by laying eggs or by bearing live young. Eggs hatch in ten days. The nymphs, which are pale yellow, begin feeding immediately. The young nymphs remain in a "crawler" stage for a short time. Gradually a white fluffy, waxy coating begins to form over their bodies. As the coating gets thicker, the nymphs' movements become sluggish.

Females molt twice before becoming adults. Males have an additional pupal stage spent in a thin cocoon. During this period they develop wings. The males have no mouthparts. Their only purpose in life is to grow wings to fly, find a female (who is wingless) and mate with her. There may be several generations of mealy bugs per year.

Hot, dry weather offers favorable growing conditions for mealy bugs.

Organic Management/Control Strategies

The City of Toronto adopted a new municipal by-law (spring 2004) that restricts the use of pesticides. For details about the by-law visit the Pesticide by-law page on Toronto Public Health's Web site at www.city.toronto.on.ca/pesticides or www.toronto.ca/health. Questions may be e-mailed to pesticide@toronto.ca.

Natural Control:

Predator insects provide a means of controlling mealy bugs. These predators include mealy bug destroyer (*cryptolaemus* or cryto-bug), a beetle that is native to California as well as lady beetles or ladybugs and green lacewings.

These predator insects are available through some garden supply companies and some garden centres.

Mechanical Control:

The following controls may result in reducing an infestation. Eradication of mealy bugs will only happen by persistent application of controls.

- Mealy bugs can be picked off plants and squished by hand.
- Although mealy bugs have a waxy coating that provides them some protection, several weekly applications of insecticidal soap (strong jet of sprayed soapy water) or horticultural oils (applied following manufacturers guidelines) will reduce an infestation
- Apply rubbing alcohol directly on the mealy bug by means of a light spray or by hand using a cotton or wool cloth, paper towel or cotton swab
- Apply Dormant oil in April
- Change the soil to remove all the larval stages of the bugs. Remove the old soil as much as possible, and replace with a soilless mixture.
- Place the plant outside in summer to expose the plant to natural predators.

References

The Toronto Botanical Garden Weston Family Library is an excellent source for horticultural information.

Yepson, Roger B. Jr. ed. *The Encyclopedia Of Natural Insect and Disease Control*. Pennsylvania, U.S.A.: Rodale Press, 1984.

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Alford, David V. *A Colour Atlas of Pests of Ornamental Trees, Shrubs and Flowers*. Portland, Oregon: Timber Press, 2003.

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Factsheets are produced by the Toronto Master Gardeners in association with the Toronto Botanical Garden. They provide introductory information about a broad range of horticultural topics and are intended for personal use and study purposes. Should your gardening group or organization wish to use multiple copies we ask that you inform the Toronto Botanical Garden at info@torontobotanicalgarden.ca.

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