



## Responsible Pesticide Use

### Before Purchasing a Pesticide

- Identify the pest correctly.
- Use physical control methods and alternatives to pesticides.
- Read the label directions and safety precautions before buying the product. The label must include the name of the pest to be controlled and the treatment location (e.g. indoor, outdoor, garden uses, pet treatment).
- Purchase only the quantity of product needed for the treatment.
- Consider hiring a licensed pest control operator.

### Using a Pesticide

- Carefully read all label instructions and precautions before using pesticides.
- Do not drink, eat or smoke while applying pesticides.
- Persons and pets should vacate the area during treatment. Cover or remove aquaria.
- If kitchen area is to be treated, cover or remove food, dishes and utensils.

### After Using a Pesticide

- Always wash your hands thoroughly after handling any pesticide product.
- Do not permit persons or pets to contact treated surfaces until residue has dried completely.
- Provide adequate ventilation of treated areas after use.



Photo: Clemson University,  
USDA Cooperative  
Extension Slide Series,  
Bugwood.org



**Aphid damage**

Photo: Jerry A. Payne,  
USDA Agricultural Research  
Service, Bugwood.org



**Prune and destroy  
infested leaves or plant  
sections.**

## Aphids – What are they

Aphids are small, soft-bodied, pear-shaped insects with long antennae and a characteristic pair of cornicles (short tubes) extending on either side of their abdomen. Their translucent bodies are usually green, red, black, yellow or white.

Aphids are common garden pests. These tiny creatures are represented by hundreds of species and almost as many colours.

Aphids have an unusual lifecycle. In the spring, hibernated eggs hatch into females that give birth to 10 or more live female young per day. This allows a colony of aphids to grow very quickly, especially indoors. In the fall, the males are born and the fertilized females produce eggs for hibernating outdoors. These shiny black eggs are tucked into the crevices of bark and bud scales. Winged adults are produced only when the colony must migrate, such as when the colony is overcrowded or the climate is unfavourable.

## What can they do?

Although aphid damage is most noticeable on ornamental, fruit and shade trees, they can also infest flower and vegetable gardens. You will find aphid colonies on the underside of leaves, the tips of branches or anywhere there is new growth. An initial infestation of aphids is usually localized, but can spread quickly if allowed to develop unchecked. Aphids damage plants by sucking the sap from leaves, twigs, stems or roots and can sometimes transmit plant virus diseases in the process.

Leaves attacked by aphids have spotty yellow discolourations, usually on the undersides. The leaves may later dry out and wilt or curl. Some species of aphids cause plants to form galls—swellings of plant tissues that are globe or spindle-shaped. The galls, which often turn brown, contain many aphids in all stages of development.

When aphids moult, they cast off their skins which look like small white flakes.

Many aphid species produce large amounts of “honeydew”—a sweet sap that makes leaves shiny and sticky, accumulating on anything found under infected trees or plants. Because of its sweetness, aphid honeydew attracts other pests such as ants, flies and wasps. The honeydew can also predispose an affected plant to develop black sooty mould, making the leaves appear dirty and grey.

All of these factors contribute to making the aphid a pest. To keep plant damage to a minimum, it is important to control an aphid infestation in the early stages.

## How can I manage them?

### Physical control

- Repair screens and weather-stripping around doors and windows to keep winged adults away from houseplants.
- Inspect new houseplants before bringing them into your home. If necessary, isolate and treat them with one of the methods listed below.
- As a preventative measure, avoid nourishing garden and houseplants with high-nitrogen fertilizers.



Photos courtesy of:  
Dr. Henri Goulet, Canadian National Collection of Insects;  
Whitney Cranshaw, Colorado State University, Bugwood.org;  
R. Funnell



Soap sprays may be effective in controlling aphids.

- Monitor house and garden plants frequently during the growing season. As the flight of winged colonizers cannot be predicted, examine plants weekly to determine if you need to take action against a new infestation. Examine the bud area and underside of new leaves for clusters or colonies of small aphids. Once colonies are found on a plant, this means that aphid numbers can increase quickly if no action is taken.
- On small plants, crush the colony by hand or prune the plant to remove the colony. In some cases, this may provide adequate control. Pruning and destroying infested leaves or plant sections may also help prevent plant diseases from spreading and reduce the development of new colonies.
- Spray dormant oil on fruit trees in the spring to kill hibernating eggs. Dormant oils are thick oils used primarily on fruit trees to control hibernating mites, scales and other insects. Dormant oils are available at garden supply stores.
- To control infestations in the home garden, spray the underside of plants with strong jets of water to reduce aphid populations. Monitor plants and repeat as needed (this can be every few days).
- As aphids like the colour yellow, place pans of water and yellow food colouring close to observed infestations to attract and drown them. This method is useful in vegetable gardens
- In outdoor gardens, place yellow double-sided tape around the rims of pots and along edges of raised beds to trap the aphids.
- Lay heavy aluminium foil on the ground along rows of plants to repel the aphids.
- Certain plants may protect other susceptible plants from infestation. They excrete an odour or oil that is unattractive to aphids and may repel them from the area.

Predators

Try to attract the natural enemies of aphids by planting a variety of flowering plants. Small-flowered plants like sweet alyssum, yarrow and herbs in the carrot family are often visited by insect species that prey on aphids like the lady beetle, the lacewing and syrphid flies. Parasitic wasps are also attracted to these flowers.

Some natural predators or parasites can be purchased from specialized suppliers and certain garden and greenhouse supply stores. Follow instructions carefully if purchasing these biological control products.

Products

Aphid infestations may also be treated with insecticides. There are many active ingredients registered for domestic class use on aphids. A partial list includes allethrin, malathion, pyrethrin, permethrin, mineral oil, lime sulphur, insecticidal soap and natural gum resins. Gum resins are not applied directly against aphids, but rather aim to control the ants that protect the aphids.

Insecticidal soap sprays, requiring direct contact with the insects, may also be effective and leave no residual effect.

Tall, heavily infested trees may be difficult to treat without special equipment. For infestations severe enough to threaten the health of a tree, you may want to consider the services of a licensed pest control operator.

Photo: Clemson University, USDA Cooperative Extension Slide Series, Bugwood.org



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www.pmra-arla.gc.ca



- Wipe clean all surfaces that come in direct contact with food, such as counters, tables and stovetops, including indoor and outdoor surfaces.
- Always store pesticides out of reach of children and pets and away from food and beverages.

Accidental Poisoning

- Call a poison control centre immediately and seek medical attention.
- Take the pesticide container or label with you to the emergency facility or physician.
- Follow first aid statements on the label.
- In case of accidental poisoning of pets seek veterinary attention immediately.
- Report pesticide incidents to manufacturers (phone number on label). They are required to send them to Health Canada.

Disposing of Pesticides

- Do not reuse empty pesticide containers. Wrap and dispose of in household garbage.
- Follow the product label instructions or contact provincial authorities for disposal of pesticides.

**Note:** These are general recommendations. Consult the label for specific instructions. When in doubt, contact a professional.

**Health Canada**  
Pest Management Regulatory Agency  
www.healthcanada.gc.ca/pmra  
1-800-267-6315