



# Growing Green

Healthy gardens, naturally.

## Leaf-Eating Caterpillars

### Pest Information Factsheet Series

#### What Do They Look Like?

Caterpillars are the immature stage of moths and butterflies. Some are pests that chew on leaves of garden plants, including the common leaf-eating caterpillars described below:

- **Tent caterpillars** are hairy and brown with intricate colour markings. They spin large silk nests in crotches of tree branches in the spring and feed together in groups. Tent caterpillar populations rise and fall in 7-10 year cycles. After their numbers build up over several years, natural enemies such as diseases and beneficial insects knock them down again.
- **Fall webworm caterpillars** are light-coloured with long white hairs. They appear in late summer and spin large silken nests over the ends of branches on alder, wild cherry and other deciduous trees.
- **Apple ermine moth caterpillars** are smooth and light green with dark heads and a pair of black dots on each segment. They feed on apple leaves from late April to mid-June; a similar species feeds on hawthorn, cherry and mountain ash. They feed in small, fine silken webs they spin along tree branches.
- **Imported cabbageworm caterpillars** are small and velvety green. They chew large holes in leaves of cabbage family plants (see photo). They mature to become white cabbage butterflies and are present all summer.
- **Winter moth caterpillars** are bright green with three narrow white stripes on each side. Starting in April, they feed on flowers, leaves and buds of apple, blueberry, fruit and ornamental trees such as maple and poplar.
- **Leaf roller caterpillars** are small and green with brown or black heads. Present on fruit trees in early spring, they roll the tips of leaves together and feed inside.



#### What Does Caterpillar Damage Look Like?

- Leaf-eating caterpillars chew holes in leaves and sometimes in flower buds. As the caterpillars grow, the size of the holes they make also increases.
- Caterpillar damage can look like slug damage. To tell them apart, look for traces of slime (from slugs) or dark greenish pellets (caterpillar excrement).

#### Caterpillar Life Cycles

- All caterpillars hatch from eggs laid by female moths or butterflies. The females lay eggs on the right food plant for the caterpillars.
- Caterpillars chew on leaves for days or weeks until they reach the full size for their species. Then they wander away to find a protected place, often in soil or debris, to change into an immobile stage called a pupa. Inside the pupa, the caterpillar transforms into a moth or butterfly.
- Tent caterpillars, fall webworms, winter moth and ermine moths have one generation a year. Imported cabbageworms have several overlapping generations over the summer.

## When Are Caterpillars a Problem?

- Relatively few leaf-eating caterpillars cause damage in home gardens. Most of the time, caterpillar populations are kept in check by natural enemies.
- In some years, tent caterpillars or winter moths can reach high numbers and may require control. Imported cabbageworms occur in vegetable gardens most years.
- Small plants are more likely to be damaged from caterpillar feeding, whereas well grown plants and trees usually replace lost leaf areas and outgrow damage. Even defoliation from a severe tent caterpillar outbreak can be unnoticeable by midsummer after the trees put out new leaves.

## How Can I Prevent Damage?

- Protect the many natural enemies of caterpillars, including birds, predatory wasps, parasitic flies and wasps, ground beetles and other predators. Avoid using insecticides and attract beneficial insects to the garden by planting flowers that supply pollen and nectar (see the Beneficial Insects Factsheets in this series).

## What Can I Do to Control Caterpillars?

- Hand pick caterpillars and egg masses (if you can find them). Crush them or drop them in soapy water. It is easier to find tent caterpillar egg masses after leaves have dropped in the winter. They look like silvery-brown, hardened bands of foam (about 1 cm wide), partially encircling small tree branches.
- Prune out the nests of web-spinning caterpillars. Start looking for tent caterpillars while their nests are still small from mid-April onward.
- Use tree bands (for winter moths only). Wrap a 15 cm wide band of plastic material around each tree trunk at a convenient height. Spread sticky glue on the band (Tanglefoot® is sold at garden centres). This method works because female winter moths can't fly—they must walk up trunks to lay eggs on the branches. Put up bands in mid-October and take them down in February.
- Spray *Bacillus thuringiensis kurstaki* (BTK). This natural bacterial disease for caterpillars is sold at garden centres. It is non-toxic and doesn't harm wildlife or beneficial insects. BTK must be eaten by caterpillars to infect them and has no effect on eggs or adults. Before spraying, make sure caterpillars are still present, as damaged leaves and empty webs remain on branches long after caterpillars have left. Spray in the evening, when no rain is expected and make sure leaves are thoroughly covered. For leaf rollers, spray BTK just after the flower petals fall.



## Tips for a Healthy Garden

- Enrich the soil by top dressing twice a year with compost or other organic fertilizers.
- Choose plants adapted to the conditions of sun or shade and moisture.
- Plant native plants, which are adapted to the local climate. Most are easy to care for and have few pest problems.
- Before buying plants, make sure they are healthy and free of diseases and insect pests.
- Water deeply, but infrequently, to encourage deep rooting. Remember that the Stage One Water Conservation Bylaw is in effect from May 1 to September 30.
- Cover the soil between plants and under shrubs with organic mulches. This insulates the soil, keeps in moisture and suppresses weeds.
- Protect and attract native beneficial insects, birds and other animals.

## Factsheet Series

For more information on natural gardening pests visit the website for other Information Sheets at:  
[www.crd.bc.ca/gardening](http://www.crd.bc.ca/gardening)

### Natural Gardening

[www.crd.bc.ca/gardening](http://www.crd.bc.ca/gardening)

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