

## Flea Beetle

Leaf feeders have chewing mouth parts they use to remove portions of the leaf tissue. All or part of the leaf may be consumed, and the remainder may be ragged or filled with holes. The symptoms always consist of missing leaf material.

Many different groups of insects are leaf feeders. These include caterpillars of moths and butterflies, beetle adults and larvae, the immature stage of certain wasps, and grasshoppers. All have chewing mouth parts and cause defoliation. Many of the common garden pests are leaf feeders: tomato hornworms: cabbageworms (the imported cabbageworm, the cabbage looper, and the diamondback moth); flea beetle adults; roseslugs; and Colorado potato beetles (both as larvae and adults).

Many different ways can be used to control leaf feeders.

Cabbageworms can be handpicked: treated with the pathogenic bacterial spray, *Bacillus thuringiensis*; or sprayed with one of several garden insecticides. Flea beetle populations are reduced by eliminating weeds in and around the garden, where adult beetles spend the winter.

Another set of leaf feeders, hornworms, are seldom a problem because of parasitic wasps that attack these caterpillars. As with all efforts at controlling pests, effectiveness comes with early detection and timely application of controls.