Imported Willow Leaf Beetle

*Plagiodera versicolora* (Laicharting); Family: Chrysomelidae

**Imported willow leaf beetle adults.**
*Photo by David Cappaert, Michigan State University, Bugwood.org*

**Larvae on a willow leaf.**
*Photo by Paul Weston, Cornell University, Bugwood.org*

**Injury**
Adults and larvae of the imported willow leaf beetle both feed on foliage of willows during the summer months. Adult chew holes and notches in the leaves. The larvae skeletonize the leaves, feeding on both sides of the leaves and eating the tissue between the veins. With a heavy infestation, all the leaves may turn brown. Trees with a heavy infestation may appear dead or scorched because of the brown skeletonized leaves. Lighter infestations may cause the foliage to appear "dirty" or partly brown from skeletonization.

**Description**
The beetles are stout, oval, metallic bluish-green, about 1/8 inch in length. The larvae are slug-like in form with a tapering abdomen, and bluish-black in color. Larvae are about 1/4 inch long when mature, and usually feed on the willow foliage in groups.

**Life History**
The adult beetles emerge from their overwintering quarters under the loose bark of willows, or in piles of debris and leaf litter nearby, and begin feeding on young willow foliage in late April. Feeding and egg laying occur throughout the month of May. Females lay yellow eggs in clusters on the undersides of the leaves. The young larvae emerge a few days later and begin feeding. Second generations begin in early June through July. In some years there may be a third generation. In late August or September, the beetles again seek shelter under the bark or in piles of leaves where they will overwinter.

**Management**
Although damage may be unsightly, it is usually not fatal to the tree. Even if total browning occurs in one season, it is seldom severely damaging, but if it should occur two or three years in a row, it could be serious to the health of the tree, especially trees that are not well established. Natural enemies exist, including several parasites, and one pupal parasite looks to be especially effective in reducing the populations of this insect.
With some ornamental pests, such as this one, it is a judgment decision on the part of the plant owner whether to engage in some type of control measure, or to let nature take its course. If management of the pest using insecticide is desired, one spray should be applied in mid to late May or early June (192-448 GDD -- see note). Careful observation will determine if more than one spray is necessary.

**Note:** GDDs (growing degree days) are a way of measuring temperatures and are associated with insect activity. Your local radio station may make this information available, or see this website: [http://www.nrcc.cornell.edu/grass/degreedays/degreedays.html](http://www.nrcc.cornell.edu/grass/degreedays/degreedays.html)