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VIBURNUM LEAF BEETLE, *Pyrrhalta viburni*, (COLEOPTERA: CHRYSOMELIDAE)



Images by Timothy Abbey, Richard Cowles and Rose Hiskes

The viburnum leaf beetle was first found in Connecticut in 2004. Yellow to brown adults are approximately ¼” long and feed on foliage of thin-leaved viburnums from July to September (Figures 1, 2). During the summer and fall, mature females make

straight rows of cavities on the undersides of terminal twigs. They lay multiple eggs in the cavities and cover them with a mixture of feces and shredded bark (Figure 3). Flattened brown-spotted yellowish larvae hatch mid-May the following year and feed

on the emerging leaves (Figure 4). As a group, they skeletonize leaves beginning on the undersides, but as larvae, they increase in size. Then, they begin to eat through the entire leaf, leaving only the veins.

Approximately a month later, they crawl to the ground to pupate in the top 1 – 2 inches of soil. Adults emerge in three to four weeks (July), feed, mate and begin laying eggs in the twigs. Initial feeding by adults results in oval holes in leaves that can progress to total defoliation. There is one generation each year.

When noticed, larvae and adults can be handpicked. Twigs with eggs can be pruned off during the winter months when they are most visible. Azadirachtin, which is among the compounds registered for use against this pest in Connecticut, will control small larvae and repel adults. Bifenthrin, permethrin, and rotenone can also be used. Multiple applications are often necessary. Imidacloprid applied as a systemic to be taken up by the roots may provide season-long control. Consult the label for dosage rates and safety precautions.

Probably the most important control measure for viburnum leaf beetle will be to plant species that are resistant to feeding by this pest. While at Cornell University, Dr. Paul Weston rated viburnums for tolerance to viburnum leaf beetle (www.hort.cornell.edu/vlb/index.html). Highly susceptible and susceptible species will die following approximately three successive years of defoliation.

Highly susceptible

V. dentatum, Arrowwood viburnum
V. nudum, Smooth Witherod
V. opulus, European cranberrybush viburnum
V. opulus var. *americana* (formerly *V. trilobum*), American cranberrybush viburnum
V. rafinesquianum, Rafinesque viburnum

Susceptible

V. acerifolium, Mapleleaf viburnum
V. lantana, Wayfaringtree viburnum
V. rufidulum, Rusty blackhaw viburnum
V. sargentii, Sargent viburnum
V. wrightii, Wright viburnum

Moderately susceptible

V. alnifolium (syn. *V. lantanoides*)
Hobblebush
V. x burkwoodii, Burkwood viburnum
V. cassinoides, Witherod viburnum
V. x carlcephalum, Carlcephalum viburnum
V. dilatatum, Linden viburnum
V. farreri ('*Nanum*' is highly susceptible)
Fragrant viburnum
V. lentago, Nannyberry viburnum
V. macrocephalum, Chinese snowball viburnum
V. x pragense, Prague viburnum
V. prunifolium, Blackhaw viburnum
V. rhytidophylloides, Lantanaphyllum viburnum

Resistant

V. bodnantense
V. carlesi, Koreanspice viburnum
V. x juddii, Judd viburnum
V. plicatum, Japanese snowball viburnum
V. plicatum f. *tomentosum*, Doublefile viburnum
V. rhytidophyllum, Leatherleaf viburnum
V. setigerum, Tea viburnum
V. sieboldi, Siebold viburnum