

## JAPANESE BEETLE CONTROL ON WOODY ORNAMENTALS

*Popillia japonica*

The beetles were known only from the Japanese archipelago until outbreaks were reported in New Jersey in 1916. This pest is primarily found east of the Mississippi, but there are localized outbreaks in Missouri and California.

The adults feed on over 300 species of plants. Plants that can be severely damaged include rose, crape myrtle, grape, littleleaf linden, crabapple, purpleleaf plum, and Japanese and Norway maples, among others.

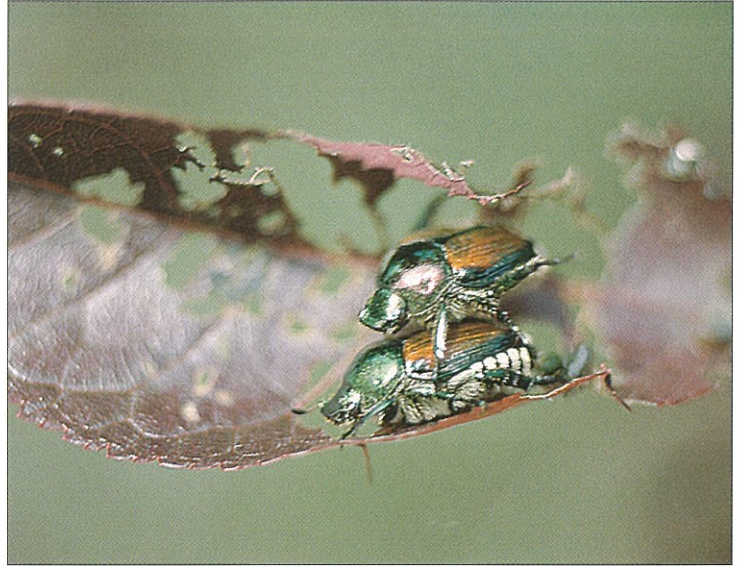
**SYMPTOMS:** Chewing damage is caused by the beetles selectively removing patches of leaf tissue between the veins (skeletonizing) as they feed on the upper leaf surface of trees and shrubs.

Beetles swarm in large numbers and feed on the sunny upper portions of the tree's canopy. This creates a brownish halo affect on small trees, such as littleleaf lindens. The canopy becomes sparse as leaves drop prematurely.

Beetles tend to be more active on sunny days when temperatures are above 70° F and the relative humidity is less than 60%. They can be vigorous feeders from mid-June through August.

**CAUSE:** Japanese beetles are  $\frac{3}{8}$  to  $\frac{1}{2}$  inch long with a metallic, dark-green head and thorax and copper/bronze-colored wing covers. They have a one-year life cycle. The larvae or grubs are notorious pests on turf roots.

**SOLUTIONS:** Because of their long-range flight capability and prolonged summer feeding, two pesticide applications with a 3-week interval may be required during peak activity to protect new growth. A new soil-injected treatment provides season-long management with moderate populations of Japanese beetles. University research indicates that pheromone bag traps, available at garden centers, will trap huge numbers of beetles but will not protect ornamentals from damage. These may work if the entire neighborhood uses traps, but they are more of a novelty than a control measure when used on individual properties.



*Skeletonized leaves are the result of Japanese beetle chewing on purple leaf plum foliage.*