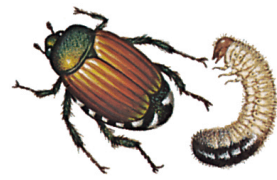


Japanese Beetle (*Popillia japonica*)

Information from the Idaho State Department of Agriculture



Introduction

The Japanese beetle is a destructive pest of turf, landscape, and ornamental plants in the United States. Accidentally introduced in the United States from Japan in 1916, it attacks over 300 kinds of plants, including several fruit, garden, and field crops. Adult Japanese beetles feed on foliage, flowers, and fruits. Leaves are typically skeletonized or left with only tough network of veins. The larvae, commonly known as white grubs, primarily feed on roots of grasses, often destroying turf in lawns, parks, and golf courses.

Description

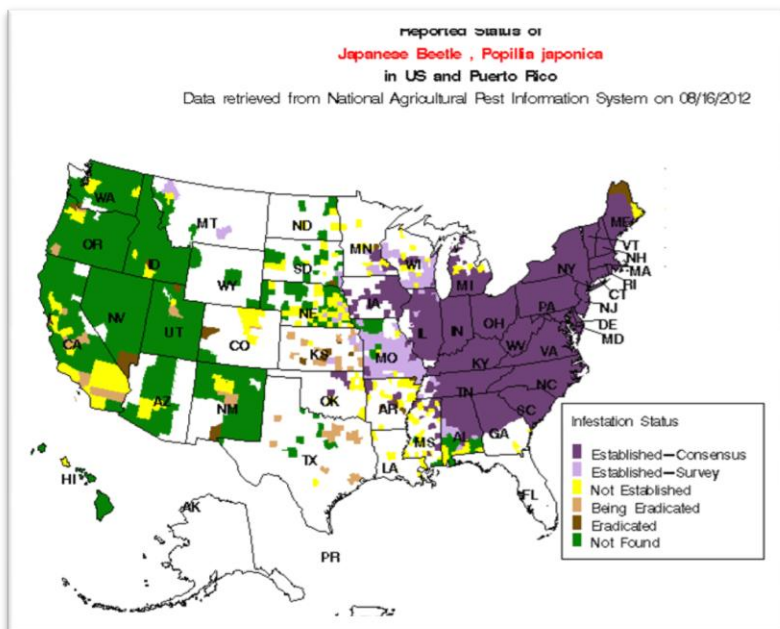
Adults: Shiny, metallic green with coppery brown wing covers; slightly more than ½ inch long.

Eggs: White or cream colored eggs are spherical and about 0.06 inches in diameter when first laid. By the time it hatches, the egg has doubled its original size.

Larvae: Grayish-white, C-shaped grubs live in soil. They have dark brown head capsules and grow to be about 0.6 inches long. Japanese beetle grubs can be distinguished from other white grubs by two rows of tiny spines which form a "V" on the underside of its last abdominal segment.

Pupae: Cream-colored pupae are about ½ inch long and ¼ inch wide. They gradually turn light brown and finally develop a metallic green cast.

Distribution (as of 8/16/2012):



A mature adult (Purdue University)



Eggs (Marlene Mountain)



A Japanese beetle larvae (grub) (goorganicgardening.com)



Idaho State Department of
Agriculture
www.agri.idaho.gov

Feeding:

Japanese beetles adults attack over 300 kinds of plants including shade and fruit trees, ornamental shrubs, small fruits, and garden crops. Weeds and field crops are often damaged as well.

Japanese beetle grubs are serious pest of lawns and turf, other grasses, and nursery stock.

Damage: Japanese beetle adults often feed in groups. On most hosts, leaves are skeletonized and the mature fruit is damaged. However, injury to corn may occur when the beetles feed very heavily on the silks and ear tips thereby reducing pollination and predisposing the ear to other insects and fungi. However, heavy feeding does not necessarily influence pollination and adult injury of this magnitude is rare. In localized spots, larval injury to developing root systems can severely reduce corn stands.

Life History: The grubs overwinter in cells within 5 inches of the soil surface. In the spring, they move upward, almost to ground level, where the complete feeding and pupate. The three larval instars complete development in about 140 days. Adults emerge as early as mid-May in eastern North Carolina and as late as July in New England. Throughout the summer, they attack the fruit and foliage of many plants, including the silks of corn. In North Carolina, peak emergence occurs during July.

Soon after emerging, females deposit 40 to 60 eggs in small batches 2 to 3 inches deep in the ground. Under extremely dry conditions, many eggs and larvae perish. However, during warm wet summers, populations thrive and eggs hatch about 2 weeks after deposition. The newly emerged larvae feed until cold weather forces them into hibernation. Only one generation occurs each year.

For more information:

Resources on management and more from USDA APHIS:

http://www.aphis.usda.gov/plant_health/plant_pest_info/jb/index.shtml

Fact sheet from Utah State University:

<http://utahpests.usu.edu/ipm/htm/ornamentals/landscape-insects-and-diseases/japanese-beetle10>



Adults feed in groups, leaving behind skeletonized leaves.
(Entomology at Iowa State University)



A trap used to monitor Japanese beetles.
Photo by Ron Hines



Japanese beetles feeding on corn.
Photo by R. Bellm