

How to ID and Manage Japanese Beetles

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Fast Facts

- Japanese beetles are non-native, invasive pests that damage over 400 different types of plants by feeding on leaves, flowers, and fruits. Feeding on leaves results in lacey, doily-like leaves, flower feeding results in shredded flowers, and fruit can be hollowed out
- Adults are 1/2 an inch in length and are emerald green with copper colored wings and tufts of white hair along the edge of their body (Figure 1 below)
- While difficult to deal with, there are multiple products such as neem, Pyola, carbaryl, bifenthrin, chlorantraniliprole and more than can control adult Japanese beetles

Life cycle of Japanese beetles

Japanese beetles are scarab beetles with an annual life cycle. Adult beetles are active typically from June into late August. Adults fly and forage for food and mate and it is during this time that you will see the most damage on your plants.

After mating females will go to a patch of turf grass (such as a lawn) and lay their eggs in the soil. Immature Japanese beetles are known as white grubs and they feed on the roots of turf from July up until about September. Once the first frost hits they will burrow deeper in the soil to overwinter. In the spring they crawl near the soil surface, pupate, and emerge as adults in June .



Figure 1



Photo by Jim Kalisch; UNL Entomology

Diagnosis and Management of Japanese beetles

When they feed on leaves they will consume the green portion of the leaf between the veins, resulting in a lace like or doily like appearance. You may also find flowers that have been shredded or fruits that have been hollowed out by beetles. They can detect food plants and each other from long distances and you will normally find congregations of them rather than individual beetles.

Control of adult Japanese beetles can be accomplished by either applying an insecticide directly on the surfaces of leaves or by using a systemic insecticide treatment around the base of a plant. Timing is important when using a systemic product. You will have to make your application in April or May before adult beetles actually emerge. This gives the plant enough time to absorb the product and transfer it to the leaves to protect them.

If you are treating already present beetles you can use a variety of insecticides including some organic products. Synthetic insecticides that work well include carbaryl, bifenthrin, cyfluthrin, and lambda cyhalothrin. These all typically last 2-3 weeks on the leaves. Organic products include neem and pyola which provide excellent control but only last 3-7 days on the plant. You will need to make reapplications to ensure efficacy. You can also simply collect adults and place them in a bucket of soapy water to kill them or use plant covers to physical exclude Japanese beetle adults. You should avoid using the Japanese beetle bag traps often found at hardware and garden stores as they simply attract more beetles to your landscape and can result in greater damage to your plants.