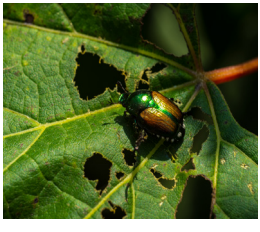
UNDERSTANDING JAPANESE BEETLES & HOW TO CONTROL

The Japanese beetle can devastate many plants, lawns, and landscapes in many areas of the Midwest. Each year Japanese Beetles reach new communities that were previously unaffected.

Adult beetles emerge in mid-June through July and are similar to Junebugs in appearance. The beetle is approximately 3/8" long and 1/4" wide with shiny metallic green heads and coppery red wings. The row of five tufts of white hairs on each side of the abdomen is a distinguishing feature.

Life cycle:
Japanese beetle larvae are typical white grubs. They are in the soil from August until June where they feed on plant roots (especially turf grass) and organic matter.

The grubs are C-shaped and approximately 1 1/4" when full grown. The adults typically emerge in June or early July depending on the season. This emergence happens earlier in the south and later in the north.

Damage:

Adult beetles eat the leaves, fruits and flowers of over 350 plants. Leaves are eaten by eating the tissue between the veins, a type of feeding called skeletonizing. Flowers and fruits are completely eaten by groups of a dozen or more beetles at a time. Eating may continue for 4-6 weeks before the beetles lay their eggs in the soil and die.

Japanese Beetles

Control:

Control of adult beetles is difficult because they emerge every day for a period of several weeks. Hand picking them off high value plants may help in certain situations with a limited numbers of beetles.

Spot spraying the leafs of high value plants with permethrin (Eight) or spinosad (Captain Jack's) may reduce damage for several days, but multiple applications are required to maintain control.

Traps using a floral lure and sex attractant are available. Traps are most effective when positioned at the perimeter of your property away from desirable plants, or when mass trapping (everyone in the neighborhood) is using them.

Plants *least* favored by Japanese Beetles:

Spruce

Lilac

Arborvitae

Tulip Tree

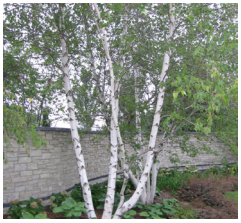
Oak

Red Maple

Additional Trees and Plants not favored by Japanese Beetles:

Euonymus
Hickory, shagbark
Mulberry
Sweet Gum
Magnolia
Holly
Persimmon
White Pine
Silver Maple
Poplar

Trees *most* favored by Japanese Beetles:



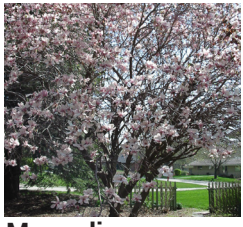
White Birch

Japanese Maple

Linden

Crabapple

Apple



Magnolia

Additional Trees and Plants favored by Japanese Beetles

Elm
Lombardy Poplar
Plum*
Sassafras
Grape
Horsechestnut
Cherries*
Black Walnut
Hollyhock
London Planetree
Rose

*including ornamentals

Additional Tips to Control Japanese Beetles:

- **Keep your plants healthy!** Healthy trees and shrubs are not killed by defoliation, but marginally healthy plants may not be as fortunate. Trees will survive the setback, though they may be weakened. Provide as much TLC as you can. That means "water" during dry periods, especially newly planted trees and shrubs. Fertilize as needed.

- **Be patient...**Spraying trees that are already brown will not turn the tree green again, at least not right away. Defoliated trees may re-leaf a few weeks after the infestation is over.

- **Stay vigilant...**Several applications of Insect Control may be necessary in severe outbreaks.

Additional Tips cont:

- **Protect the bees!** Avoid systemic products on plants bees favor. Do not spray plants when bees are foraging or under windy conditions.

- **Beware of the claims...**Some customers have reported that insecticidal soap stunned beetles on contact; however, we have no evidence that insecticidal soap or extracts of garlic, hot pepper, or orange peels will be effective when sprayed on infested plants.

- **Trap placement**. Traps should be placed as far from your crop as possible, as they work by attracting male beetles to the area.

- **What to expect later...**Large numbers of adult Japanese Beetles or June Bugs does not predict the number of white grubs or amount of turfgrass damage you will see in the lawn in fall. Spray ing Japanese Beetle adults on ornamental plants in July does not prevent white grub damage in the lawn in September. Similarly, controlling white grubs in the lawn in August does not reduce the number of beetles on ornamental plants the following year. There just isn't a direct correlation between the two.

- **Long term controls...**Systemic Insecticides may be applied to susceptible plants prior to the season. It does take 2-4 weeks for the insecticide to work its way into the plants system to provide protection, so plan on applying these products in the middle of May each year. *Please note that you cannot use systemic insecticides on Linden trees. If you cannot spray with a contact insecticide, maintain tree vigor by watering and fertilizing. The trees will leaf again.*

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