
# Beat the Japanese Beetle

*Popillia japonica*, or the Japanese Beetle, was first discovered in New Jersey in 1916. It gradually spread westward and has reached Minnesota.. We can look forward to a few years of heavy infestation. Then, as natural parasites and predators increase, the numbers will decline as has happened in eastern states.

This beetle is a monster!!! It eats a huge variety of plant leaves and damages fruit. Over 300 species of plants are on its menu. The beetle chews away the tissues between the veins of leaves, until only a skeleton leaf is left. Favorite foods include roses, hollyhocks, Littleleaf Linden, flowering crabs, and grapes. Peak numbers of adults occur in mid to later summer. The adults lay eggs in grass; the grubs eat the roots and can destroy extensive areas of lawn. This year (2011) there seems to be an especially large number – perhaps the grubs survived because of a thick and insulating snow cover.

The adult insect is about ½ inch long. The head and front is a shiny dark green. Wings are dark tan in color. On the back you will see five small whitish patches of short hairs along each side. The patches identify the insect as a Japanese beetle; other similar beetles do not have these hair tufts.

Dr. Jeff Gillman at the University discusses several approaches to control of Japanese beetles.....(What to Expect From the Japanese Beetle, http://www.extension.umn.edu/yardandgarden/YGLNews/YGLN-Sept0101.html )

"1. Japanese Beetle Traps – These traps use scent to attract Japanese beetles. These traps are effective for very large areas. Few lawns, however, are large enough to benefit from using these traps. Traps only catch about 75% of the beetles that they attract and so it is common for homeowners to create a bigger problem than they solve. If you do not see beetles then do not use a trap. [Or convince all your neighbors to use them, so your beetles are attracted to their yards...Joe]

2. Spraying for grubs and adults – Applying synthetic pesticides for grubs or adults is generally a good way to control Japanese beetles for a short time. Unfortunately, few of the chemicals used against these beetles last for very long, meaning that repeated applications are usually necessary, especially for the adults. In addition, most of the chemicals for use against the adult beetles also affect lady beetles and other beneficial insects severely. Mite and aphid outbreaks are common occurrences after Japanese beetle treatments because of the effects of the sprays on beneficial insects. Chemicals for use against the larvae are typically more effective.

3. Using biological controls such as Nematodes and Milky Spore Disease – This is probably the best idea. These biological controls, usually found for sale on the web rather than in garden centers, do not offer the same "quick kill" that chemicals do, but are safer to apply and will give better long term results. Some reports list Milky Spore as being less effective. However, newer strains of this insect pathogen, discovered over the past few years, are much more effective than older strains. These products are usually used against the larvae rather than the adult. Most of these products have not been tested for their ability to withstand Minnesota winters, but it seems likely that they would survive.

Some horticulturists recommend applying a chemical pesticide to lawns to kill young grubs that cause lawn damage. The grubs will be killed and the lawn will be saved, but adult insects will not be controlled. Next year, adult insects may fly in to your yard from up to 5 miles away

Scientists have discovered that the petals of the common Geranium are very attractive to Japanese beetle. Within a half hour after consuming red, white, or salmon flower petals, the beetles became intoxicated, rolled onto their backs, and slowly twitched legs and antennae. After passing out for 12 to 18 hours, they slowly recovered. Like addicts, they went back to eating the petals. It is doubtful that this is an effective control in home gardens. A useful insecticide may be developed soon from the geranium.

Another solution for controlling Japanese beetles, Christian Science Monitor

Small infestations may be controlled by hand picking. A gathering device is easily fashioned from a plastic jug, a cheap funnel and duct tape. Add soapy water or bleach solution to the container. Japanese Beetles tend to drop when disturbed, so tapping the branch of the plant will cause most of the beetles to fall into the jug and to their death. The best time to collect the beetles is in early morning or late evening when the temperatures are cooler and the beetles are sluggish. Feeding beetles seem to attract more of their kind, so it is good to get rid of the early arrivals.

Systemic insecticides (imidacloprid) are available which are absorbed by the plant roots and spread to the leaves. These are very effective for Japanese beetle control. However, studies are beginning to show that very tiny doses of these systemic toxins can show up in the pollen and nectar of treated flowers. Bees and other pollinators may not be killed by these sub lethal doses, but their nervous systems are severely affected. Disorientated bees have problems foraging and navigating.

NO MATTER WHAT PEST CONTROL YOU USE, MAKE SURE TO CAREFULLY READ THE LABEL AND FOLLOW DIRECTIONS EXACTLY!!!

If all else fails, grow plants that are not on the Japanese beetle menu. Ohio State University (Control of Japanese Beetle Adults and Grubs in Home Lawns, http://ohioline.osu.edu/hyg-fact/2000/2001.html) states:

**“**The adults do not like to feed on ageratum, arborvitae, ash, baby's breath, garden balsam, begonia, bleeding heart, boxwood, buttercups, caladium, carnations, Chinese lantern plant, cockscomb, columbine, coralbells, coralberry, coreopsis, cornflower, daisies, dogwood (flowering), dusty-miller, euonymus, false cypresses, firs, forget-me-not, forsythia, foxglove, hemlock, hollies, hydrangeas, junipers, kale (ornamental), lilacs, lilies, magnolias, maple (red or silver only), mulberry, nasturtium, oaks (red and white only), pines, poppies, snapdragon, snowberry, speedwell, sweet pea, sweet-William, tuliptree, violets and pansy, or yews (taxus).”

Good luck and happy gardening, Joe Baltrukonis