



MASTER GARDENER VOLUNTEER PROGRAM

Frequently asked questions about Japanese beetles

Japanese beetles (JB) are serious pests of ornamental plants and turf in Minnesota. They were first found in the United States in 1916 and were first found in Minnesota in 1968. The summer of 2017 saw high numbers of JB in the Twin Cities area and southeast Minnesota. The following are some common questions asked about them.

WHAT'S THEIR LIFE CYCLE?

Adults emerge from the soil starting in late June or early July, then feed, mate, and lay eggs. Their activity is most intense over a 6-8 week period, and then they gradually die off. Individual beetles live for about 60 days. During that time, females can lay a total of 60 eggs. JB numbers fluctuate from year to year. An important factor influencing their abundance is the soil moisture when they lay eggs (July and August). Eggs and young grubs are very susceptible to dry soils. The regular rains that have occurred the last several summers have been a big factor in the higher numbers of JB.

WHICH PLANTS ARE MOST LIKELY TO BE ATTACKED?

Adults feed on leaves or flowers, and are a major pest of over 350 plants species, including trees, shrubs, fruits, vegetables, and even field and forage crops and weeds. Highly preferred plants include linden, birch, apple/crabapple, plum and other *Prunus* spp., rose, and grape.

HOW DO JAPANESE BEETLES DAMAGE PLANTS?

Adults feed on the leaves, consuming the tissue between the veins, and leaving the foliage lace-like. Fortunately plants can generally tolerate this feeding damage, although it can affect the plant's appearance. The grubs are also pests, feeding on grass roots.

HOW CAN I MANAGE INFESTATIONS WITHOUT INSECTICIDES?

Physical removal can be an effective method, although it is not practical in large gardens or for trees. When you remove JB by hand, dispose of them in a bucket of soapy water to kill them. You can also cover some plants with a light weight fabric, like cheesecloth to exclude JB. However, research has demonstrated that companion planting is not effective.

ARE THERE ANY LOW IMPACT INSECTICIDES THAT ARE EFFECTIVE?

There are a couple of effective low impact insecticides; Pyola and Neem oil. They can help protect plants from JB, especially if only small numbers are present. However, insecticidal soap, extracts of garlic, hot pepper, or orange peels are not effective.

WHAT RESIDUAL INSECTICIDES DO YOU RECOMMEND?

There are several residual insecticides that are effective, such as carbaryl and permethrin. However, they will probably need to be applied more than once. To protect bees, apply them during late evening after bees are no longer active. The products should be dry by morning when bees become active again. Systemic insecticides are also effective and only need one application but do not apply them to plants that are bee attractive. Large trees should be treated by a professional applicator.

CAN YOU MANAGE ADULTS BY TREATING THE GRUBS?

Treating grubs to reduce the beetles on your property is not effective. The adults are very mobile and can easily fly onto your property from adjacent areas. Only treat your turf if you are seeing grub damage to your lawn.

ARE TRAPS EFFECTIVE?

Traps are not recommended. Research has demonstrated that more beetles fly toward the traps than are caught, resulting in surplus beetles feeding on your plants.

DOES SQUASHING JB ATTRACT MORE OF THEM?

The concern is that this practice will release pheromones that may attract more adults. Females do produce a sex attractant that males respond to, but it is no longer produced after mating. The aggregations of adults observed on plants are caused by chemicals released by the plants in response to the adults feeding on them, and not attractants produced by the beetles.

CAN ANYTHING BE DONE FOR NEXT YEAR?

JB can only be managed when the adults are active. If you had a problem with JB this year, anticipate them being pests again next summer. Monitor your susceptible plants starting the first week of July and take the appropriate management steps when you first start to see them feeding.

RESOURCES

U of M Extension Yard and Garden - <http://www.extension.umn.edu/garden/yard-garden/index.html>

U of M Extension: Japanese beetle - <http://www.extension.umn.edu/garden/insects/find/japanese-beetles/index.html>

MN DNR: Japanese beetle - http://dnr.state.mn.us/invasives/terrestrialanimals/japanese_beetle/index.html

USDA: Japanese beetle - https://www.aphis.usda.gov/plant_health/plant_pest_info/jb/downloads/JBhandbook.pdf

QUESTIONS

For questions about Japanese beetles visit <https://ask.extension.org/ask>

For questions about the Master Gardener Program visit <http://www.extension.umn.edu/garden/master-gardener/>