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# HOME GROWN FACTS

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## Japanese Beetles

Japanese beetles are serious pests of roses, grapes, raspberries, and many ornamental trees and shrubs. In fact, they eat the leaves, flowers, or fruit of about 250 different plants. They are a shiny metallic copper color, or described as "greenish brown" and are about 1/2 inch long. Adults are seen during July and August, when they do their damage.

As frustrating as it may seem, the most effective treatment available to the home gardener is hand-picking and squashing or drowning these pests. Simply fill a container, such as a coffee can, with soapy water, and flick off the beetles into the can. Later cover it and dispose of them. The process is easy because the beetles move very slowly and do not hide, and early efforts pay off with a much reduced population.

Other methods of Japanese beetle control vary in their success. The Japanese beetle traps, which use a pheromone, or sex-attractant, to lure them, are effective in catching many beetles. However, you must put them far away from your yard, or you will be attracting even more beetles in the direction of your plants. - and the beetles may stop off for some chewing before they fall into the trap! Another approach, using strong-smelling plants like chives, garlic, or white geraniums as companion plants which repel the beetle, is not thoroughly or scientifically tested, but some gardeners report success with this effort.

Several natural predators eat Japanese beetles. Among birds, only starlings eat the beetles, but several others eat the larvae in the spring. Several beneficial insects including Assassin bugs and Tiphia wasps attack Japanese beetle larvae.

The Japanese beetle larvae, or grub, can also be a problem in lawns. The grub is about 1/2 inch long, "C"-shaped, and grayish-white with three pairs of legs on the front part of its body. Whether or not to treat for the grubs depends upon several factors. It is not recommended to treat your lawn for larvae just because you have had adult Japanese beetles, since your grubs will grow up to fly away and dine elsewhere anyway! Treat for lawn grubs if the lawn shows actual grub damage - as in chewed roots that result in browning grass. You can check whether there are enough grubs to cause damage by counting the grubs per square foot of sod. If you find 8 to 12 grubs per square foot, treatment may be worthwhile. The only effective time to treat for lawn grubs is during late July and August when the grubs are near the soil surface and vulnerable to the insecticides that are labeled for lawn grubs. (As with any pesticide, be sure to read and follow label instructions precisely). After applying the pesticide, water it in well (1/2 to 1-inch of water applied immediately).

Alternatives to pesticides for lawn grubs include: (1) Milky spore disease. However, it is not very effective in New York State except on Long Island, since our cold winter temperatures kill off the spores in winter and successful treatment depends upon a build-up of the disease. (2) Although research is not yet totally conclusive, a better choice to try is the parasitic nematode, in the *Steinernema* species, which seem to provide some control. Watch for information on beneficial nematodes becoming available for Japanese beetle control, as future research progresses.

Botanical poisons for adult Japanese beetles include pyrethrums and rotenone, and several pesticides that are labeled for Japanese beetles. However, these also harm beneficial insects, and may be harmful to birds or other living things, so try the hand-picking and other control methods before choosing a pesticide. In many cases, you can simply choose plants that are less attractive to Japanese beetles and prevent a lot of trouble.

*Helping You Put Knowledge to Work*

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York STATE MUST BE REGISTERED WITH THE New York state department of environmental conservation (DEC). Questions concerning the legality and/or registration status for pesticide and/ or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office. Read the label before applying any pesticide.

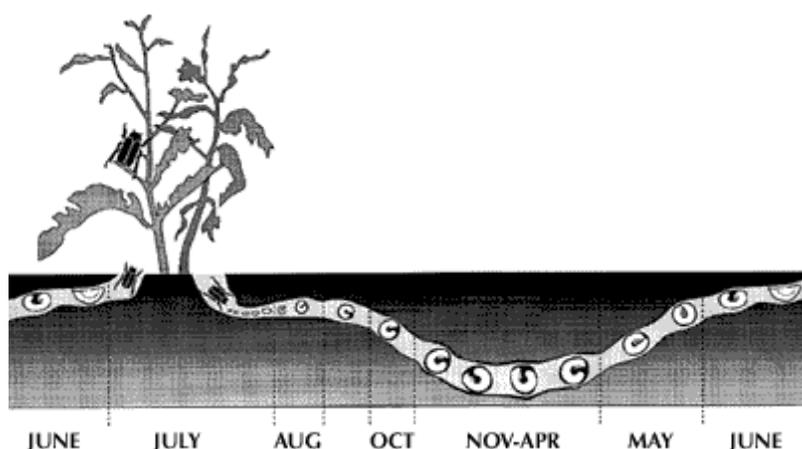
For more information visit  
<http://counties.cce.cornell.edu/yates/6710.htm>  
<http://nysipm.cornell.edu/>



### **TREAT IN THE FALL - IF AT ALL**

You might be tempted to treat grubs in the spring, when you see last fall's damage—but most spring treatments are a waste of time and money. The grubs have already damaged your lawn and are fairly resistant to insecticides at this time. Furthermore, even if you could eradicate them, summer will bring a new batch of beetles to your lawn.

Sample for grubs in the late summer. If you decide to treat, do so in the late summer or early fall, when grubs are susceptible to both biological and chemical insecticides and haven't had a chance to cause severe damage. Treat only the areas where grub populations exceed the suggested thresholds, in areas of your lawn that are aesthetically important.



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