Beetles on Ornamental Plants

Dr. Stanley R. Swier, Extension Specialist Emeritus, Entomology

Introduction

In late spring and early summer, there are several species of adult beetles in the home landscapes of New Hampshire, attacking prized ornamental trees, shrubs, flowers, and foliage plants. Among the most commons are the Japanese beetle (*Popillia japonica*), the rose chafer (*Macrodactylus subspinosus*), and the Asiatic garden beetle (*Maladera castanea*). Learning to identify these insect pests and knowing their life cycle is key to prevention and control.

These three species spend their first year beneath the soil as white grubs. These grubs hatch from eggs laid in late spring or early summer, in soil with turf grasses or weeds. The grubs feed on grass roots, often causing damage to lawns and other plants. This fact sheet deals only with the adult beetles that emerge the following summer to feed above ground and breed the next generation.

In New Hampshire, all three pests produce only one generation each year. The adult rose chafer feeds and mates over a three-week season, while the Japanese beetle and the Asiatic garden beetle feed throughout the growing season.

Rose Chafer

A common pest of fruit and ornamental plants, the rose chafer is especially destructive in areas with sandy soils preferred by the larvae. This ¾” long beetle is spindly-legged, long, and slender. It is tan to gray with a reddish-brown head and thorax and a black under-surface.

These chafers damage plants by eating foliage, buds, and ripening fruit. Rose and peony blossoms are especially susceptible, as well as the foliage of mountain ash and elms. Rose chafers also damage apple, cherry, and crabapple trees, grape, strawberry, raspberry, hydrangea, hollyhock, and many other ornamental plants. A word of warning to folks who keep free-range poultry: rose chafers can poison and kill poultry and other birds.
Rose chafer adults often appear suddenly in great numbers about mid-
to late June. Like Japanese beetles, rose chafers are active during the day. 
They feed for about three weeks.

Home gardeners can handpick rose chafers from small shrubs and 
flowers or shake the beetles into a can or onto a ground cloth. They 
must do this morning and early evening every day to achieve effective 
control of this pest. Some gardeners use a variety of “lure” plants, such 
as Spireas, Deutzias, Andromeda, blackberries, and white roses to attract 
the early-arriving chafers for handpicking, helping reduce damage to the 
most desirable later-blooming specimens. They might also try covering 
plants with cheesecloth or spun-bonded polyester row covers (available 
at most garden centers) when chafers are active.

**Japanese Beetle**

Japanese Beetles are about ½” long, metallic green with bronze wing 
covers and a row of white tufts of hair on each side of the body. These 
beautiful metallic beetles feed on more than 400 species of broad-
leaved plants, including roses, Rose-of-Sharon, hollyhocks, apples, 
cherries, pears, peaches, grapes, hollyhocks, Japanese maple, Norway 
maple, horsechestnut, black walnut, ash, and gray birch. The adults 
eat the tissue between leaf veins, leaving attacked leaves with a lace-
like appearance. They also attack the flower buds and fruits of favorite 
plants, as well as overripe and decaying fruits.

Adult beetles emerge from the soil between the last week of June and 
early July and are most active from mid-July through August, though 
they may be present until the first frosts of early fall. After adults emerge 
from the soil, they crawl onto low-growing plants to raise their body 
temperature before taking flight. Then, they seek out suitable food 
plants, leaving a pheromone (scent) trail to alert others to good food 
sources. As with rose chafers, Japanese beetles may suddenly converge 
onto landscape plantings in such huge numbers that chemical control is 
difficult and often impossible.

Newly emerged female beetles release an additional sex pheromone 
which attracts males. After breeding and feeding for a day or two, the 
females leave feeding sites and burrow into the soil to lay eggs. These 
females leave the soil within a day or two and return to their food 
sources to feed and mate again. This cycle of feeding, mating, and egg-
laying continues until a female Japanese Beetle has laid 40 to 60 eggs.

As with chafers, home gardeners can handpick or shake Japanese beetles 
from small plants mornings and early evenings. If you live in an area 
with high Japanese beetle populations, consider selecting landscape 
plants rarely attacked by this pest, such as lilacs, holly, boxwood, 
euonymus, red and silver maple, flowering dogwood, cedar, spruce, 
juniper, arborvitae, red oak, magnolia, forsythia, hydrangea, or taxus 
(yew).

We do not recommend the pheromone traps guaranteed to lure huge 
numbers of Japanese beetles to their deaths. While there is no doubt the
traps attract lots of beetles, some research indicates using the traps may actually increase beetle damage to neighboring plants. Do not use the traps for controlling Japanese beetle grubs in your lawn, either; there is no evidence these traps reduce grub populations in surrounding lawns.

Asiatic Garden Beetles

The Asiatic garden beetle is small and velvety, cinnamon-brown, about ½” long, and roughly the size and shape of a coffee bean. It attacks many different vegetable, herb, fruit, and ornamental plants, including butterfly bush, rose, dahlia, annual aster, chrysanthemum, cosmos, delphinium, perennial aster, petunia, phlox, and zinnia.

The beetles emerge from their pupae late June to early July. Unlike Japanese beetles and rose chafers, Asiatic garden beetles feed mostly at night, chewing irregular holes in the blossoms and foliage of host plants. Gardeners who notice damage to vegetable, fruit, or ornamental foliage, particularly around the leaf edges but have not seen the destructive pest itself can monitor for its presence by visiting the garden at night and shining a bright light down around affected plants; the beetles are attracted to light. They may congregate in great numbers on the windows or screen doors of lighted homes in the evening. One technique home gardeners can use to help control Asiatic garden beetle is to reduce overwintering habitat by tilling under or composting weeds and plant debris each fall.

Management

IPM Strategies:

Cultural Practices

• Monitoring — Inspect trees frequently for beetle damage.
• Handpicking — Handpick or shake beetles from small plants mornings and early evenings.
• Trapping — Japanese beetle traps are useless as a control. All they do is attract more beetles. DO NOT USE THEM.

Chemical Control

There are a number of registered pesticides on the market to control one or more of these beetles. Because labels will vary with manufacturer, always check the pesticide label and be sure that the product is labeled for beetles on outdoor ornamental plants. Many gardeners have found dusting or spraying for these pests is futile. Because Asiatic garden beetles feed at night and bury into surrounding soil during the day, they are difficult to find and kill, especially in years when populations are abundant. Rose chafers and Japanese beetles are strong flyers that can migrate for miles in search of choice edibles. So even though the spray you applied Sunday to protect your roses has killed the beetles you found feeding there, by Wednesday you may find a whole new congregation of beetles chomping away on the same plants. Do not apply any pesticide more often than the label specifies. Gardeners who choose to protect plants with pesticide sprays or dusts should know the most effective products are also highly toxic to honeybees. Do not apply pesticides during the daytime hours when bees are visiting flowers.

Stop! Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. All pesticides listed in this publication are
contingent upon continued registration. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to New Hampshire regulations.

Acknowledgments:

We drew some information for this publication from a University of Vermont fact sheet, Rose Chafer (G.R. Nielsen) and from an Ohio State fact sheet, Japanese Beetle, by David J. Shetlar and Jennifer E. Andon, available at http://ohioline.osu.edu/factsheet/ENT-46.

Updated: November 2016 (Dr. Alan T. Eaton and Rachel Maccini)
Reformatted: November 2016 (Marie-Eve Jacques)

Visit our website:
extension.unh.edu

UNH Cooperative Extension brings information and education into the communities of the Granite State to help make New Hampshire's individuals, businesses, and communities more successful and its natural resources healthy and productive. For 100 years, our specialists have been tailoring contemporary, practical education to regional needs, helping create a well-informed citizenry while strengthening key economic sectors.

The University of New Hampshire Cooperative Extension is an equal opportunity educator and employer. University of New Hampshire, U.S. Department of Agriculture and New Hampshire counties cooperating.