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# Beetles on Ornamental Plants

*Yikes! What's demolishing my rose bushes?*

*Help! Thousands of tan insects are having a feeding frenzy on the two little crabapple trees in my front yard.*

*Whoa! Some insect has completely wiped out the zinnias and ornamental basil I planted as a border for my flower garden –but I haven't seen what it is.*

Several species of adult beetles invade New Hampshire home landscapes in late spring and early summer, attacking prized ornamental trees, shrubs, flowers and foliage plants.

Among the most common are the Japanese Beetle, the Rose Chafer and the Asiatic Garden Beetle. Learning to identify these insect pests and knowing their life cycle is key to prevention and control.

All these species spend their first year of life beneath the soil as white grubs that hatch from eggs adult beetles lay in turf grasses or weeds during late spring or early summer. The grubs feed on grass roots, often causing damage to lawns and other plants. This fact sheet deals only with the adult beetle forms 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. Adult Rose Chafers feed and mate over a three-week season, although Japanese Beetles and Asiatic Garden Beetles continue feeding 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  $\frac{3}{4}$ -inch long beetle is spindly-legged, long, slender, tan to gray in color with reddish-brown head and thorax and a black undersurface.

The 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. The chafers also damage apple, cherry and crabapple trees, grape, strawberry, raspberry, hydrangea, hollyhock and many other ornamental plants.



*Rose Chafer*

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 will 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. You'll have to do this morning and early evening every day to achieve effective control of this pest. You might also try covering your choicest plants with cheesecloth or spun-bonded polyester row covers (available at most garden centers) during the weeks the chafers are active.

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.

### **Japanese Beetle**

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 the leaf veins, leaving attacked leaves with a lace-like appearance. They also attack flower buds and fruit of favorite plants, as well as overripe and decaying fruit.

About ½-inch long, metallic green with bronze wing covers and a row of white tufts of hair on each side of its body, Japanese Beetles are leaf skeletonizers, chewing out the tender parts of the leaves between the veins, leaving a lace-like skeleton.



*Japanese Beetle*

Adult beetles emerge from the soil about the last week of June and are most active from mid-July through August, though they may be present until the first frosts of early fall.

Adult beetles emerge from the soil the last week of June or early July crawling onto low-growing plants to warm up a bit 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 the food source to feed and mate. 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 morning and early evening. 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 don't recommend the pheromone traps guaranteed to lure huge numbers of Japanese Beetles to their deaths. While there's no doubt the traps attract lots of beetles, some research indicates using the traps may actually *increase* beetle damage to neighboring plants. Don't use the traps for controlling Japanese beetle grubs in your lawn, either. There's 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-inch long and roughly the size and shape of a coffee bean. These beetles attack many different vegetable, herb, fruit and ornamental plants, including butterfly bush, rose, dahlia, annual aster, chrysanthemum, cosmos, delphinium, perennial aster, petunia, phlox and zinnia.



*Asiatic Garden Beetles*

The beetles emerge from their pupae in late June and 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, may not be the destructive pest itself, but can monitor for the presence of these shy beetles by visiting the garden at night and shining a bright light down around the affected plants. The beetles are attracted to light and 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.

### **Chemical control**

The following pesticides are registered to control one or more of these beetles on ornamentals:

*Traditional Insecticides (synthetic):* permethrin, Orthene, bifenthrin, deltamethrin, tralomethrin, cyfluthrin

*Botanical insecticides:* neem, pyrethrin, rotenone

Because labels will vary with manufacturer, be sure to check the label of the pesticide and be sure that the product is labeled for *beetles on outdoor ornamental plants*.

Many gardeners have found dusting or spraying for any of these pests an exercise in futility. Because Asiatic Garden Beetles feed at night and bury into surrounding soil during the day, they're 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. Especially if you are using a botanical pesticide, you may need to make repeated applications. Make sure you do not apply any pesticide more often than the label specifies.

Gardeners who choose to protect plants with pesticide sprays or dusts should know most effective products are also highly toxic to honeybees. Don't apply pesticides during the daytime hours when bees are visiting flowers.

**Stop!** This publication contains pesticide recommendations that are subject to change at any time. UNH Cooperative Extension provides these recommendations only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. Because of constantly changing labels and product registration, some of the recommendations offered in this publication may be outdated by the time you read them.

Contact the NH Division of Pesticide Control at (603) 271-3550 to check registration status. If any information in these recommendations disagrees with the label, you must disregard the recommendations and follow the label directions. No endorsement is intended for products mentioned, nor criticism intended for products not mentioned.

Store pesticides in their original containers in a locked cabinet or shed away from food. Dispose of unused pesticides or empty containers safely, according to NH regulations. If you suspect pesticide poisoning, call the New Hampshire Poison Control Center at **1-800-562-8236**.

*Fact sheet reviewed by UNH Extension Entomologist Dr. Stan Swier, 6/02.  
Rose Chafer and Asiatic Garden Beetles photos, courtesy Dr. Alan Eaton, UNH Extension entomologist.*

*We drew some information for this publication from a University of Vermont fact sheet,  
Rose Chafer, by G.R. Nielsen, available at <http://ctr.uvm.edu/ctr/el/el39.htm>  
and from an Ohio State fact sheet, Japanese Beetle, by David J. Shetlar,  
available at <http://ohioline.osu.edu/hyg-fact/2000/2504.html>*

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