

Rose chafer

Macrodactylus subspinosus

QUICK FACTS

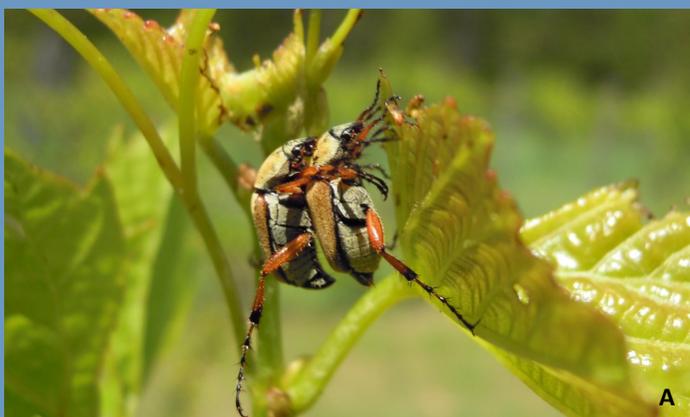
- Generalist pest that feeds on hundreds of plants.
- Peak activity in June.
- More prevalent near large grassy areas.
- Often found in mating pairs.
- Primarily a pest of concern on young plants with limited leaf area.

Rose chafers (RC) are considered a generalist pest and affect many crops, particularly those found on or near sandy soils or grassy areas conducive to grub development. The adult beetles feed heavily on foliage and blossom parts of numerous horticultural crops in Michigan and can cause significant damage to hop plants, particularly young plants with limited leaf area. Rose chafer skeletonize leaf tissue, giving them a fine lace-like appearance. RC cause simple mechanical damage so growers should consider that established plants can sustain a significant amount of leaf feeding from RC with no

negative implications to the plant or crop. Young plants with limited leaf area may require more aggressive management. Chafer activity has typically subsided by the time burrs are present so flower damage that could have yield implications is not an issue.

The rose chafer is a light tan beetle with a darker brown head and long legs, and is about 12 mm long. There is one generation per year. Adults emerge from the ground during late May or early June and live for three to four weeks. Females lay groups of eggs just below the surface in grassy areas of sandy, well-drained soils. The larvae (grubs) spend the winter underground, move up in the soil to feed on grass roots and then pupate in the spring. A few weeks later, they emerge from the soil and disperse by flight. Male beetles are attracted to females and congregate on plants to mate and feed. Populations may be larger around large areas of turf or grasses.

They are often found in mating pairs and fly during daylight hours. Visual observation while walking a transect is the best method for locating them. Because of their aggregating behavior, they tend to be found in larger groups and are typically relatively easy to spot.



A. Mating pair of rose chafer. B. Feeding damage to hop caused by rose chafer. Photo credit; Erin Lizotte, Michigan State University.

There are no established treatment thresholds or data on how much damage a healthy hop plant can sustain, but growers should consider that well-established and vigorous plants will likely not require complete control. First year plantings with limited leaf area may need to be managed more aggressively.

Managing RC can be a frustrating endeavor as they can reinfest from surrounding areas, which is often misinterpreted as an insecticide failure. Organophosphate, pyrethroid and neonicotinoid insecticides all have good activity against RC and can provide some control. Insecticides have the potential to disrupt beneficial insect and mite populations, so they should only be used when absolutely needed. Organic options, including Surround WP are also available, good coverage is key and it should not be applied after burrs are present. For a complete list of pesticides currently registered refer to the current version of Michigan State University Extension resource Pesticides Registered for Hops in Michigan, available at www.hops.msu.edu. Be sure to note each products "Beneficial insect toxicity" when choosing a pesticide to limit unintended negative impacts on beneficial insects.

References: Walsh, Douglas. 2015. Field Guide for IPM in Hops. USDA and Washington State University. Web accessed April 2016 at http://usahops.org/userfiles/image/1457308044_HopFieldGuide3rdEdition-Full.pdf