



Oriental beetle

Exomala orientalis

Order Coleoptera, Family Scarabaeidae; scarab beetles

Introduced pest

Pest information: Turfgrasses, root-feeding grubs; adults do not feed.

Description: Oriental beetle is not established in Minnesota, but may be transported on nursery stock. Introduced into Connecticut as early as 1920, this scarab beetle has spread across the mid Atlantic states. The adults are similar in size to Japanese beetles, 13 mm in length. The adult beetles vary in color from light brown to black, often with darker mottling on the wing covers.

Life history: Grubs feed on the roots of turfgrasses and adults feed on roses, phlox, and petunias, although they are active at night and more cryptic compared to Japanese beetle. There is a one year life cycle.

Overwintering: Grubs or prepupae in soil.

Damage symptoms: The roots of the grass are severed, so blades pull easily.

Monitoring: Look for brown patches of turf that pull out of the ground, as the roots have been removed by grub feeding. Identify a grub problem by examining a square foot sample of lawn along the border where dead or damaged grass meets healthy grass. When grub densities are high, the blades pull away from the roots and the turf rolls back like a carpet. Skunks and moles are known to use grubs for food. Remember the grubs turn into adult beetles that emerge from the soil and fly to trees and shrubs to feed on the leaves before returning to the turf to lay eggs. In some species, control of adults is warranted if they are damaging ornamental plants. A pheromone trap is available.

Cultural control: Maintain healthy grass by fertilizing in the spring and fall and watering during periods of drought.

Chemical control: Effective grub control requires accurate timing of applications to kill the most susceptible, small grubs. For most of the annual grubs (Japanese beetle, masked chafers, European chafer, Asiatic garden beetle and Oriental beetle), the best treatment time is early August. Halofenozide and imidacloprid are not fast acting and are often used in areas that experienced high damage the previous year; apply from mid May until early August. Only certain insecticides are effective for late season (September and October) or spring grub control, such as carbaryl, or trichlorfon for rescue treatments. If the product does not work, switch to another product. Reducing thatch and thorough irrigation after making a treatment will increase the chances of success. Do not use broad spectrum insecticides routinely, as they will do more harm than good and will kill the beneficial insects that live in the turf, which can cause pest outbreaks.



Oriental beetle adults; note the variation in color. (286)
Photo: John Davidson

Biological control: Carabid ground beetles, staphylinid rove beetles, ants, spiders.

Plant mortality risk: High, if threshold is reached.

Biorational pesticides: *Beauveria bassiana*, halofenozide, nematodes (*Heterorhabditis bacteriophora*, *Steinernema carpocapsae*)

Conventional pesticides: beta-cyfluthrin (adults only), bifenthrin (adults only), carbaryl, chlorpyrifos, cyfluthrin (adults only), deltamethrin (adults only), imidacloprid, lambda-cyhalothrin, permethrin, trichlorfon