Asparagus Beetles

Crioceris species; Family: Chrysomelidae

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There are two species of beetles that attack and cause economic damage to asparagus in New York. They are the common asparagus beetle, *Crioceris asparagi* (Linnaeus), and the spotted asparagus beetle, *Crioceris duodecimpunctata* (Linnaeus). The common asparagus beetle is the more widespread of the two species.

Common Asparagus Beetle





Common asparagus beetle Larva From: <u>Bugwood.org</u> Clemson University -USDA Cooperative Extension Slide Series

Common asparagus beetle Adult From: <u>Bugwood.org</u> Clemson University -USDA Cooperative Extension Slide Series

Injury:

Both the larvae and the adults of the common asparagus beetle damage the asparagus plants. The overwintered adults emerge and begin to feed on the tender growing tips of newly sprouted asparagus. They eat out holes and cause a brownish discoloration of the tissue. The grubs feed on the tender young tips and on foliage. The plant growth is seriously reduced and proper root development prevented, causing a decrease in the size and quality of the crop.

Description:

The common asparagus beetle is 1/4 inch in length, with dark wing covers marked by yellowish patches and reddish borders, and a reddish thorax. The head is bluish black, and the legs and antennae are tinged with green.

The larva or grub of this beetle is dark gray to olive green, with black legs and head.

Life History:

Common asparagus beetle adults overwinter in sheltered places such as piles of rubbish and heaps of old asparagus tops. They emerge from their shelter when the new shoots come up, and begin feeding on the tender tips. They soon lay eggs on the young shoots. The eggs are elongate, oval, and deposited singly or in rows of two to eight. Later in the season the eggs are laid on leaves and flower stems.

The eggs hatch in 3 to 8 days, and the grubs begin feeding on the tender tips. When the grubs mature, they drop to the ground and construct a small earthen cell where they transform into pale yellowish pupae. The adult beetles emerge from the pupae.

There may be two or more generations a year depending on the climate.

Spotted Asparagus Beetle



Spotted asparagus beetle Adult @2003 Cornell University. Photo by David Smith, Dept. of Entomology.

Injury:

The spotted asparagus beetle is most injurious early in the season, when the adults attack the growing tips and sometimes eat the buds of newly sprouted asparagus. The beetles also feed on foliage, eating out irregular areas. The larvae cause little damage, because they feed inside the asparagus berries.

Description:

The spotted asparagus beetle is slightly larger and more robust than the common asparagus beetle. The adults are reddish-orange in color, with six distinct black spots on each wing cover. Antennae, eyes, and the underside of the thorax are black.

Life History:

Spotted asparagus beetle adults overwinter in piles of debris. They leave their winter quarters about one week later than the common asparagus beetles, and begin to feed on the tender young shoots. They do not deposit eggs until the plant begins to blossom, about three weeks after they have emerged. The egg is deposited singly on plants, usually those bearing fruit. The egg is 1/25 inch in length, olive brown, and attached to the leaf by one side.

The grubs hatch in 7 to 12 days, and are yellowish-orange, with a black head and legs. The larva finds a berry and enters it at the blossom end. Inside the berry, it feeds on the seeds, and it may attack 3 or 4 berries before it is mature. When fully grown, it drops to the ground by a silken thread, and spins a cocoon just under the soil surface. In New York State a second brood usually occurs in July.

Management of Asparagus Beetles

Clean up dead asparagus stalks over the winter. Hand pick beetles in small plantings.

For the common asparagus beetle, cutting the shoots very clean and just below ground level every day or two during the cutting season will tend to remove the eggs before the larvae can establish themselves in a home garden patch.

For the spotted asparagus beetle, removing and destroying asparagus berries in small garden plots, or using only male (non-fruiting) asparagus plants, will help to give control.

If needed, pesticides may be applied. Products registered for home garden use in New York State in 2009 include carbaryl, malathion, permethrin, pyrethrins, or spinosad. Apply the insecticide when the beetles first appear. Apply one to three times but do not repeat applications within 3 days. Be sure to check the label for the number of days you have to wait to harvest (=Days to Harvest) before applying any pesticide to edible crops.

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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 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.