

Asparagus Beetles on Asparagus

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The asparagus beetle is a sporadic pest that can be aggravating for asparagus growers throughout Virginia. The shoot damage not only reduces the quality of the spears but this beetle is also unique in the pest world, as it is an insect that is controlled because the eggs laid on the shoots is objectionable to consumers. With a little background on this pest most growers are able develop an effective pest management program.

In some parts of Virginia, asparagus growers are already beginning to cut some spears in their fields. Asparagus beetles should start appearing on asparagus sometime in April. Two species of asparagus beetles are found in Virginia, the common asparagus beetle, *Crioceris asparagi* (L.) [Fig. 1], and the spotted asparagus beetle *Crioceris duodecimpunctata* (L.) [Fig. 2]. Adults of the common asparagus beetle are 1/4 inch long, metallic blue to black and have wing covers with three or four white spots and reddish margins. The thorax is red and usually marked with two black spots. The spotted asparagus beetle is about 1/3 inch long, orange with 12 spots on its wing covers. Larvae of both are olive green to dark gray with a black head and legs. Larvae measure about 1.5 mm at hatching, and as they develop they become plump and attain a length of about 8 mm. Both have eggs that are approximately 1 mm long, oblong, shiny, black, and are attached by one end to asparagus spears.

Adults and larvae chew on shoots and foliage. Eggs are laid on shoots around the time of harvest. Presence of eggs on the spears is objectionable to some and may impact marketability, although the eggs themselves cause no damage.

Lifecycle: Asparagus beetles overwinter as adults in plant debris. In spring the beetles first feed on the tender asparagus spears and tips of buds, subsequently depositing their brown to black eggs on spears. In about a week the larvae hatch and join the adults feeding on the spears and ferns. After the larvae mature through four instars (in approximately 8 days) they enter the soil beneath plants and pupate, emerging from the soil as adult beetles in 5-10 days. Later in the season another generation of eggs will be laid on the stems and foliage of the asparagus plants. In Virginia there are two generations per year.

Management Options:

Cultural Control. Harvest spears as early as possible. Beetles are attracted to plants with an abundance of foliage; therefore, growers can leave a small portion of their crop unharvested as a decoy for beetles to congregate, while the rest of the crop is harvested. Thoroughly remove all

plant debris from garden and surrounding areas after harvest to eliminate beetle overwintering sites.

Organic/Biological Control. Spray or dust with botanical insecticides when larvae are first noticed feeding on plants. Important natural enemies of asparagus beetles include a tiny parasitic wasp, *Tetrastichus asparagi* Crawford, which attacks eggs, and several species of lady beetles (which feed on asparagus beetle eggs and small larvae).

Chemical Control. Treat with a registered insecticide, such as Ambush or Pounce (permethrin), Sevin, Lannate, or Malathion, when beetles begin to lay eggs (usually late April), or when beetle larvae are feeding on the foliage (in the summer). Because asparagus spears are harvested almost daily, it is important to use an insecticide with little residual activity. Be sure to follow the necessary wait period between insecticide application and the days before you can harvest again.

A second possibility is to spray the plants in the fall with a registered insecticide to reduce the beetle population before they overwinter and thus reduce the number of beetles the following spring.

Newly planted beds of asparagus are most susceptible to feeding damage so consider treating more frequently to spare the young plants excessive damage and to promote vigorous establishment.



Fig. 1 Asparagus beetle



Spotted asparagus beetle