

## **Asparagus Beetle**

## by Bob Bauernfeind

"Peek-a-boo, I-see-you" — a game that we have all played at one time or another. In lieu of a toddler, step into your asparagus patch and play the game with the common **asparagus beetle**. It is almost comical — spot a beetle, sneak up on it, and invariably it will slip around to the opposite side of the stem. Twist the stem/fern around, and it will again retreat to the opposite side.

The asparagus beetle (Figure 1) is beautifully colored and patterned. Their wing covers are bluish black, and bordered by reddish-orange margins. Each wing possesses 3 yellowish to cream-colored square spots. The prothorax (area just behind the head) is reddish-orange.



Figure 1
Asparagus beetle

Asparagus beetles overwinter beneath debris in and around gardens/asparagus beds. Initiation of their seasonal activities coincide with the appearance of the first asparagus spears poking through the ground. Asparagus beetles are present throughout the growing season. Then in response to cooler temperatures in late fall, beetles seek refuge in protected sites where they overwinter.

The asparagus beetle life cycle is temperature regulated and spans a period of 3 to 7 weeks. After mating (Figure 2), eggs are deposited "on end" in straight rows (Figures 3 and 4). Within a week, small larvae (Figure 5) emerge and immediately begin feeding. Larvae develop rapidly. Mature plump soft-bodied "wrinkly" larvae are dull grey with black head capsules and legs, and up to 1/3-inch long (Figure 6). Larvae next burrow into the ground where they become transformed into pupae. Following a 1-2 week pupation period, newly emerged beetles immediately begin another generation. In Kansas, asparagus beetles produce (certainly) 2 to (possibly) 3 generations per year.



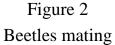




Figure 3
Eggs on leaf



Figure 4
Eggs on stem



Figure 5
Small larva

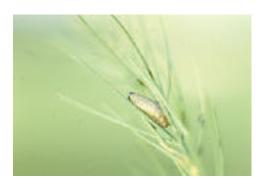


Figure 6
Mature larva

Two types of damage are attributable to asparagus beetles. Decreased marketability of produce may be a result of the presence of eggs deposited on spears (Figure 7) and/or visible feeding damage (Figure 8). Also, asparagus beetle larvae produce an inky black fluid (Figure 9) which causes stains on spears. For home use, spears that might not be considered "market quality" are still usable. Eggs can be removed with washing/rubbing and rinsing in water. And despite some gnaw marks, spears are completely edible.



Figure 7
Eggs on spear



Figure 8 Chewing damage



Figure 9
Inky black stain

Upon completion of the season's asparagus production, continued feeding on asparagus ferns by

uncontrolled populations of asparagus beetle and their larvae (Figure 10) reduce the photosynthetic capabilities of plants thus decreasing the replenishment of root reserves necessary for the next season's asparagus production.



Figure 10 Foliar feeding

During the production period, a couple of approaches can be used to counter asparagus beetle activities. Spears should be harvested regularly and cut cleanly and deeply to deprive beetles access to egg-laying sites. Also, insecticides can be used to protect spears from egg-laying beetles. Control of asparagus beetles is also important when establishing new asparagus plantings. By protecting/conserving all foliar growth, plants can maximize/realize their full photosynthetic capabilities in helping to feed and build root reserves. Active ingredients registered for use against asparagus beetles include carbaryl, malathion, permethrin, horticultural oils (against the larval stages) and rotenone, all of which are marketed as insecticidal products produced by various manufacturers.

A couple of cultural practices may help to reduce asparagus beetle numbers. Volunteer plants can be eliminated thus depriving beetles of a food source. Or several plants can be allowed to grow and attract beetles. Those plants can than be sprayed to eliminate concentrations of beetles and their larvae.

Another beetle associated with asparagus is the **spotted asparagus beetle**. It is decidedly different in appearance (Figure 11), life cycle and importance as an asparagus pest. Their initial appearance is later than that of the common asparagus beetle, and eggs are not laid before the asparagus berries have formed — a time well after asparagus production is completed and plants have been allowed to "fern out". Spotted asparagus beetle larvae bore into Figure 11 the berries and feed on the berry pulp. Larvae feed on Spotted asparagus beetle a number of berries in the course of their development. After pupating in the soil, a second generation is produced in late summer.



## Figure 11 Spotted asparagus beetle on right

"Knowledge for	<i>Life</i> "
_	

All educational programs and materials available without discrimination on the basis of race, color, national origin, sex, age, or disability. Kansas State University, County Extension Councils, Extension Districts, and the U.S. Department of Agriculture cooperating.

K-State Research and Extension is an equal opportunity provider and employer.

Department of Entomology Home Page | Entomology Extension Home page | K-State Research and Extension Home Page | K-State Home Page |

This page was last updated on: 06/28/05 We hope you enjoy visiting our WWW site. Please mail any questions, suggestions, or comments to: Psioderb at KSU.EDU