LADY BEETLES Coleoptera: Coccinellidae Hippodamia spp., Coccinella spp.

DESCRIPTION

Adults are about 4 mm long, oval and convex in shape, and red-orange usually with black spots on the wing covers. Larvae are gray or blue-gray with numerous yellow, white, or red spots. Mature larvae are about 9.5 mm long. Eggs are football-shaped, yellow or orange, and are laid on end in clusters on the undersides of leaves.

LIFE HISTORY

Lady beetles overwinter as adults in protected places and some species are found in aggregations in protected areas in wooded or mountainous areas. They migrate to fields in April and May and locate aphid prey. After feeding for a short period of time, they deposit eggs on plants infested with prey. Eggs hatch in five to seven days, and the tiny larvae begin feeding on small aphids or other soft-bodied prey. When mature, they form a pupa on the plant and adults emerge about a week later. A complete life cycle from egg to adult requires four to six weeks. There are several overlapping generations each season before adults seek overwintering sites.

IMPORTANCE

Lady beetles are perhaps the most familiar insect predator in most agricultural crops, nurseries, and urban areas. Adults and larvae feed voraciously on aphids and other soft-bodied insects such as scales, mealybugs, and spider mites (Stethorus spp. and Scymnus spp. are small black lady beetles that may be important predators on spider mites).

Even though lady beetles are excellent general predators, they may be unreliable because they disperse when aphid populations are low and do not increase rapidly enough to overcome large insect infestations. However, the potential value of lady beetles as predators can be illustrated by the following:

Hippodamia sinuata larvae consume an average of 306 ± 44 aphids during 21 days; adults consume an average of 380 ± 11 aphids during 31 days.

H. quinquesignata larvae consume an average of 245 ± 39 aphids in 11 days; adults consume an average of 336 ± 8 aphids in 31 days.

Coccinella trifasciata larvae consume an average of 175 aphids in 27 days; adults consume an average of 295 ± 9 aphids in 31 days.