

PLS 15: Pest Management Lab

Pest Descriptions and Recommended Monitoring Protocol

Crop: Summer Squash (*Cucurbita pepo*) [seeded 02/24/09; transplanted 03/17/09]

Main Pest: Squash Bug (*Anasa tristis*): Adult Squash Bugs are about 14-18 millimeters long. They have flat, grayish brown backs with many visible black hairs. Their rusty-orange abdomen is just visible around the edges of their wings. Squash Bug nymphs resemble the adults, but are slightly shorter (2.5-10 mm in length) and are grayish-white in color with dark heads and appendages. Squash Bugs are typically found feeding or mating on the underside of leaves, at the base of stems, and under dead leaves on the soil surface.



Other Pest: Cucumber Beetle: Both the Western Striped (*Acalymma trivittatum*) and Western Spotted (*Diabrotica undecimpunctata*) Cucumber Beetles are found on summer squash in California. Both species are about 9 millimeters long. The Western Striped Cucumber Beetle is yellow-green with three black stripes down its back, while the Western Spotted species is lime green with 12 black spots. Cucumber Beetles are often found feeding on the undersides of flowers, new leaves, and emerging fruits.



Recommended Monitoring Protocol: Once a week, randomly select 10 plants in the field to inspect for Cucumber Beetles and Squash Bugs. Be careful to look underneath the plant's leaves and around the base of the stem. Record the number of both Cucumber Beetles and Squash Bugs observed on each plant and calculate an average number of each pest observed per plant sampled.

PLS 15: Pest Management Lab Natural Enemies Identification

As discussed in lecture, natural enemies are insects that either prey upon or parasitize other insect pests. Though their presence depends on a number of variables (crop, season, pest population, farming practices, location, etc.), some of the most commonly found natural enemies are shown below to help you identify them in the field.

Lady Beetles



Green Lacewings



Tachinid Flies



Syrphid Flies/Hover Flies and larvae



Assassin Bugs



Parasitic Wasps (and parasitized aphids)

