

Insect Issues in Peanuts

Well, another season is almost in the books and our harvesting weather seems to be cooperating much better than last year. Fortunately, this year has turned out much better than I anticipated. Back in mid- to late-July fruit development seemed to be at a standstill, and I was very concerned about pod-set and yield potential. However, it appears that the crop made good progress and generally is in fair to good condition. Let's hope for continued good harvest weather.

This season I had lots of inquiries about insect problems in peanuts. Primarily folks were concerned about red-necked peanut worm and southern corn rootworm (SCRW). Red-necked peanut worms are frequently found in peanuts, especially feeding on the terminals. This insect rarely poses a threat, and insecticide treatments are not suggested. In fact, applications of insecticides that destroy beneficial organisms can lead to spider mite outbreaks, which can cause serious damage.

Southern corn rootworm, however, is a different situation. This insect is a pest of peanuts, especially in the Virginia/North Carolina production region on an annual basis, and is a sporadic problem in Texas. Although we very seldom have problems with this insect in Texas peanuts, it's a good idea to understand its biology and ecology.

The adult is known as the 12-spotted cucumber beetle. It has a bright yellowish-green body, with black legs, antennae and head. The twelve black spots are found on the wings. This insect has wide distribution, and I'm sure you've seen it in your garden and landscape. It uses over 200 plants as hosts, including most common weeds and grasses, and many crops/vegetables (corn, peanuts, cucumber, squash, beans, melons, wheat, alfalfa, etc.).

Adult SCRW overwinter in and around the base of plants or other protected places (similar to boll weevils). Adults enter peanut fields in June and by mid-July large numbers of adults can be present. From late-July through August beetles lay eggs in peanut fields. Eggs are laid in the top half-inch of soil about one inch from the base of the plant. Eggs

hatch in about one to two weeks, and the larvae feed on pegs and developing pods. Mature larvae are about a half-inch long with a yellowish-which body. It has six tiny brownish legs and a brown plate on top of the last abdominal segment. Egg survival is dependent on soil moisture. Consequently, irrigated fields are where problems generally occur. Larvae feeding leaves a circular entry hole in the pod. In addition, to the direct feeding injury, damage to pods provides a point of entry for other organisms, resulting in potential Seg II and Seg III grades.

The need for adequate soil moisture to insure egg and larvae survival is the reason heavier soils are more likely to have problems. The heavier the soil, the better its water holding capacity. Of course our peanut soils in Texas are generally light textured with little clay and organic matter. However, this does not mean that sandy soils can't have SCRW problems. If soil moisture is adequate, SCRW can occur in almost any field.

The standard management approach for SCRW is a pegging-time granular insecticide application in a band over the row. This has proven to be the most effective application timing, and generally is considered a preventative treatment. Once the larvae begin feeding, insecticide treatment is fairly ineffective. There is no rescue treatment for SCRW.

It should be noted that the best indicator of potential SCRW problems is field history. Fields that have 5% or more pod damage should be noted. If a grower has had a serious problem in a particular field in the past, then he may want to consider treating that field. Fields with no history of SCRW are at very low risk for problems to develop. Also, research conducted in the Virginia/North Carolina region for five years evaluated pheromone traps for monitoring adult beetles in peanut fields. Results indicated that there was no correlation between pod damage and the number of beetles in the traps.

*Robert Lemon
Associate Professor and
Extension Agronomist*

*351 Soil & Crop Sciences
Texas A&M University
College Station, Texas
77843-2474*

*(979) 862-4162
FAX: (979) 845-0604*

*e-mail:
r-lemon@tamu.edu*

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