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CORN EARWORM ON PEANUT

Helicoverpa zea (Boddie)

Description: The corn earworm (CEW) is a caterpillar (up to 1½ inch) with many color variations. The body may be yellow green to dark brown and typically has dark, hairy warts. The head capsule is usually yellow-orange to brown. CEW larvae curl up on the soil surface when disturbed. The moth (1 ½" wingspan) is yellow-brown, typically with a dark spot on the back

Typical corn earworm larva. (M. Shepard)

half of the forewings. Behind this dark spot there is usually a dark area, followed by a lighter band, then a narrower dark band at the wing margin. Moths usually have green eyes and rest with the wings angled backward.

Biology: CEW overwinters in the soil as a pupa. Moths emerge in April and pass through two generations in corn before beginning to lay eggs in peanut in late July or early August. In S.C. there are typically four generations per year, each one lasting about a month, but usually only the third generation attacks peanut. Moths lay eggs in the terminals of peanut. The newly hatched larvae feed first on the terminals before moving to blooms, older leaves and pegs. CEW has traditionally been considered a defoliating pest and older larvae can remove significant leaf area; however the most typical effect of CEW feeding is that it retards canopy development. Terminal feeding delays and

Corn earworm moth. (M. Shepard)

sometimes prevents full expansion of the plant canopy, thereby reducing light interception and photosynthesis. Older larvae also feed on pegs; typically severing pegs which have not yet penetrated the soil surface.

Corn earworm feeding on peanut peg. (J. Chapin)

Management: CEW populations are usually lower in reduced tillage systems because more beneficial insects are present. Avoiding unnecessary use of granular chlorpyrifos in July can also reduce CEW outbreaks by preserving beneficials. CEW can be effectively controlled with foliar treatments, usually combined with a foliar fungicide to avoid additional application cost. Scout weekly for CEW from July 20th through August using a 3' shake cloth with wooden dowel handles. After moving one row out of the way, place the cloth under the peanut laterals,

then bend the laterals from the other side of the plant over the cloth. Check the soil surface for larvae on the side of the row opposite the cloth. Then beat the plant vigorously 20 times onto the cloth, pull the laterals back and count all larvae on the cloth. Look carefully for very small worms that may not move immediately. Remove the cloth and check the soil surface beneath it. Add up the total larvae per three row ft. and record it. Take another count several rows away and sample at least two representative areas of a field.

Canopy growth conditions must be considered in making a treatment decision for CEW. Plants stressed by drought or herbicides are more susceptible to yield loss from CEW. This is particularly true of varieties such as Georgia Green that are slow to close the canopy. If the plant is under stress and has less than 90% canopy closure, treat at a threshold of four total larvae per row ft. Do not rely on a percent defoliation threshold since the terminal stunting will have already occurred before significant defoliation is noticed. On rank growing canopies that have already lapped the row middles, 8 worms per ft can be tolerated. For chemical control recommendations, see the current peanut insect control section of the Pest Management Handbook.

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