Insects feeding in whorl stage corn

NEWARK, Del. - As field corn approaches the whorl stage, growers can expect to see a variety of insects feeding on the whorl or inner leaves of plants.

First generation European corn borers, true armyworms, and common stalk borers should all be active now, says University of Delaware extension pest management specialist Joanne Whalen. Each insect produces a characteristic type and amount of feeding injury, and before making a control decision it's important to know which one is causing the damage.

Whalen advises farmers to look for corn borer damage when plants reach 18-24 inches in height. Generally, shorter corn is not attractive to ECB moths unless egg laying is extended over a long period of time or taller corn is not available. Even when eggs are laid on small plants, there is little corn borer feeding on corn less than 18inches tall because younger plants contain high levels of a chemical called DIMBOA which is toxic to larvae.

When checking for corn borer whorl feeding, the specialist says to look for characteristic "window box" or "shot-hole" injury on the inner leaves of plants. Peak feeding usually occurs in mid-June, but since spring weather delayed egg laying this year, larval activity will probably peak later. Growers should scout fields weekly unitl corn reaches the pretassel stage.

Base control decisions on a random sample of 20 consecutive plants in five locations throughout a field. "In general" Whalen says, we recommend an insecticide treatment when 50 percent or more of the plants checked have fresh borer feeding. No treatment will be effective once larvae begin to bore into the stalks."



if large, ragged holes appear along leaf margins, look for armywork larvae in the whorls. This insect does infest small plants and may cause severe damage. But regrowth usually occurs unless the growing point is killed.

Armyworm outbreaks are most likely to occur under the following conditions: (1) if spring weather has been cool and wet; (2) if fields had pre-plant weed growth; (3) if no-till corn was planted in a cover crop; or (4) if corn was planted near wheat fields infested with armyworms.

Start scouting for armyworm injury during the early whorl stage and continue until the late whorl stage. Be sure to check for the presence and size of larvae. Whalen recommends treating if more than 25 percent of the plants

If entire leaves are destroyed or are damaged and larvae are less than 1¼ inches long. Larvae larger than that are almost through feeding so there's no point treating for them, she added.

While scouting fields for corn borers and armyworms, producers may also find stalk borers feeding in the whorls. Stalk borer moths lay their eggs early in the fall on dead grasses and weeds. Overwintering eggs hatch from mid-May to mid-June and larvae initially feed on nearby grasses. The insect is easy to identify because of the purple saddle on its midsection and the white longitudinal stripes on either end. In the past, infestations occurred along field borders next to grassy areas, but with the increase in notill corn acreage in Delaware, infestations have been occurring throughout no-till fields with pre-

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plant grass weed groth and/or a cover crop.

Whalen says stalk borer larvae damage corn in two ways. They either burrow into the stalk at ground level and move up through the plant, causing wilted leaves and buckled plants; or they feed in the whorls, producing ragged holes in the leaves before boring into the stalk. Base treatment decisions on a sample of 20 consecutive plants in at least fine locations throughout

a field. If larvae are still feeding in the whorls and high numers are moving from grassy areas into the corn, treat with an insecticide. Treatment will have no effect, once larvae have bored into the stalks.

Delaware residents who want further information on in-season crop pest activity can call the University of Delaware's crop pest hotline, 1-800-345-7544.



SALUTES PENNA. DAIRYMEN

Crooked Acres Farm in New Hope, Pennsylvania is the high herd in Bucks County for milk fat production. Leonard Crooke and his oldest son David are in partnership. Besides David, Leonard and his wife Elizabeth have five other children; Jim, Betsy, Dan, Jeffrey, and Becky. David is also married and he and his wife Christine have three children; Andrew, Peter, and Matthew.

In addition to outstanding milk production (19,337 milk and 753 fat (3.9%) this herd was one of only about 10 herds in Pennsylvania with a Somatic cell count average under 100,000 (87,000 on 40 cows).

CROOKED ACRES DAIRY FARM, NEW HOPE, PENNSYLVANIA

The managing partners of Crooked Acres Farm, New Hope, PA are pictured with their homebred excellent cow, Crooked Acres Million Aggie (Ex-90) who produced 21,021 milk and 831 fat (4.0%) at 5 years, 4 months of age. From left to right, Christine (Dave's wife) holding 2 year old son Peter, David, Leonard, Andrew, and Elizabeth (Leonard's wife) holding her 1 year old grandson Matthew.

The cropping program on this Eastern Pennsylvania farm consists of 70 acres of hay crop, 50 acres of corn for silage, and 45 acres of small grains. All the corn is raised for silage. High moisture shelled corn is purchased at harvest, as Leonard does not feel it has been cost effective in past years to grow his own.

In addition to high moisture shelled corn, corn silage, hay crop silage, and baled hay are fed to this high producing, high testing herd. Farm Bureau's new medium soluble protein, high energy, 32% Excel Pellet is fed as the protein supplement.

Herd Average: 19,337 lbs. Milk; 753 lbs. Fat



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