Watch for mites in soybean fields

plants are in the flowering and pod expect to see spider mites, potato

NEWARK, Del. - When soybean development stages, farmers can



Jeff Pontius, left, and George Phillips of the Northumberland County Conservation District, discuss Pontius's no-till corn demonstration plot. The results of this and other demonstration plots will be reviewed at the Conservation Tillage Field Day on Aug. 28th.

Northumberland plans field day

SUNBURY - The Northumberland County Conservation District is sponsoring a Conservation Tillage Field Day on Tuesday, Aug. 28. The field day will be held at the Jeff Pontius farm, three miles south of Sunbury on Route 147.

The program will begin at 4 p.m. with conservation tillage equipment demonstrations. No-till drills and corn planters, double offset disks, para-plow, and several types of multi-operation tillage tools will be demonstrated. Before the demonstrations, farmers are invited to come and operate the equipment and talk with equipment company sales representatives from noon to 3:30 p.m.

A pig roast will be conducted from 5:30 -6:30 p.m. Pork sandwiches and other refreshments will be provided free of charge. The refreshments are being provided by Pontius and the Conservation District.

The evening program will begin at 6:30 p.m. in Pontius's shed. George Phillips of the Conservation District staff will present a slide program on the r of the District's no-till demonstration plot program and Kevin Blake, Soil Conservation Service, will speak on the soil conservation benefits of notill planting. Ned McIlvaine, Shell Chemical, and Steve Fisher, FMC, will speak on weed and insect control in no-till. Mike Boyle, John Blue Sprayers, will present a program on sprayer calibration and Dr. James Radtke, a corn research geneticist with Northrup King, will discuss corn research.

This program will serve as an up-date

pesticide certification renewal, according to Vernon Brose, Nor-thumberland County Extension Agent.

Since the evening phase of the program will be held indoors, it will be held rain or

leafhoppers, and thrips feeding on the foliage.

According to University of Delaware extension pest management specialist Joanne Whalen, these insects reduce the amount of leaf area available to support plant growth and seed production and may affect yield if infestations are heavy enough.

Since it's easy to confuse the injury caused by these insects with other crop production problems such as herbicide injury or nurtient deficiencies, Whalen advises growers to examine plantscarefully before making control decisions.

Start looking for mite damage along field edges or in weedy areas within fields in early July. Prompt detection of infestations is essential for effective control, she says. Once soybeans are severely stressed, plants don't absorb insecticides as readily and control becomes extremely difficult.

Mite outbreaks generally occur during pod and seed development when weather conditions are hot and dry. When checking for mite feeding, look on the lower surface of leaves for characteristic whitestrippled injury near the base of leaf veins. Heavy infestations will cause leaves to turn yellow, wilt and eventually die.

Whalen says to base control decisions on a sample of 20 to 30 leaflets collected from five infested areas throughout a field. If soybeans are actively growing, she recommends spot treatment with insecticide when mite populations reach 10 to 20 per leaf. Such treatments will be effective only if the infestation is caught early. Once mites have spread to large areas, the entire field must

be sprayed to ensure suppression of this pest.

If soybean plants have yellow wedge-shaped areas on the leaf tips, curled leaf margins, or distorted leaf veins, it should be easy to find potato leafhoppers on the leaves. Overwintering adults migrate northward and can be found in Delaware from late May on. Leafhopper populations can increase rapidly during periods of high humidity and rainfall. Whalen says to be sure to check soybean fields located near alfalfa because these fields can be severely injured by leafhoppers after an alfalfa

Base treatment decisions on a random sample of five sweeps taken in five areas of a soybean field. She recommends treating with an insecticide if there is an average of four leafhoppers per sweep in healthy beans or eight per sweep in stressed soybeans.

While scouting for mites and leafhoppers, also look for thrips. Heavy infestations of this pest cause soybeans to turn yellow, wilt and die. Injured leaves at first have a silvery, puckered appearance. Start scouting for thrips at plant emergence and continue until the seed development stage. Whalen recommends treating if there is an average of three thrips per leaf.

In addition to insect injury, Delaware extension plant

pathologist Bob Mulrooney warns growers to be on the lookout for soybean cyst nematodes (SCN), which also cause yellowing and browning of leaf margins. The nematodes feed on soybean roots, reducing nodule formation and stunting or killing plants. Affected areas can be oval shaped or expand in the direction of tillage.

Mulrooney encourages growers to check soybeans that have been planted a month for signs of SCN injury. In light infestations. symptoms may not appear until the beginning of pod set. But when infestations are heavy, symptoms may be visible by the time plants are 6 to 12 inches tall.

To determine if SCN are present in a field, he advises growers to collect a soil sample from around the base of stunted plants, as well as a few plant samples. Protect the samples from extreme heat and sunlight and submit them to the state extension plant pathologist for analysis. Delaware residents can send their samples to: Extension Plant Pathologist Bob Mulrooney, Plant Science Department, Townsend Hall, University of Delaware, Newark, DE 19717-1303.

Soybean producers who live in Delaware can get further information on in-season pest activity by calling the University of Delaware's crop pest hotline. The number is 1-800-345-7544.



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