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Ohio State University Extension Vegetable Crops

More on Stewart's Wilt on Sweet Corn

Source: C. Welty, R. Riedel, and Ag Answers by A. Raley

Stewart's wilt is a bacterial disease transmitted by the corn flea beetle. Flea beetles become active when soil temperatures warm in the spring. The corn flea beetle harbors the bacterium during the winter and spreads the disease during the growing season. Only 10-20 percent of the beetles that emerge in the spring carry the bacterium. An uninfected beetle that feeds on an infected plant can spread the bacterium to other plants. One reason for the high incidence of Stewart's wilt this season is due to the high number of beetles that survived the winter. Fields should be scouted several times per week during spike emergence and seedling stages. Plants are most susceptible to the disease when inoculated at early growth stages; they are less susceptible once they are past the 7 leaf stage. The suggested action threshold is 6 beetles per 100 plants for susceptible varieties. Insecticides can be used to control corn flea beetle in a preventative way by applying systemic insecticides to the soil at planting time. Three soil insecticides are: carbofuran (Furadan), terbofos (Counter), and phorate (Thimet). A study in Delaware in 1980 showed control of flea beetle was more effective after treatment with Furadan (12% plant injury) and Counter (25% plant injury) than with Thimet (42% plant injury). If soil insecticides have been used and live beetles are still present in emerging fields, foliar sprays can be used to control flea beetles if the action threshold has been exceeded. Check the 1998 OH Vegetable Production Guide for labeled materials for foliar application. (Source: Corn Flea Beetle on Sweet Corn, OSU Extension Fact Sheet CV-1000-94.

From Ag Answers: Ohio State and Purdue University plant pathologists confirm that Stewart's Wilt is stunting field corn in Ohio and Indiana this season. OSU plant pathologist Pat Lipps says the disease known for infecting sweet corn and popcorn is turning up in hybrid corn. "The disease problem appears to be quite widespread in the state, but we haven't had enough samples to determine the extent," Lipps says. Purdue plant pathologist Greg Shaner says severe Stewart's Wilt symptoms have shown up on at least one dent corn hybrid in Indiana. "Leaves of young plants have long necrotic streaks with irregular borders," Shaner says. "In very susceptible hybrids or inbreds, plants may become generally invaded by the causal bacterium, wither, and die." The very mild winter favored survival of the corn flea beetle, which gives the disease to plants when it feeds on them, Lipps says. Stunted plants that have produced tillers but have a dead main stem may have Stewart's Wilt. Some, but not all, infected leaves have long, yellow stripes.

Crop Reports

Brad Bergesford and Thom Harker

SouthWest.

SouthWest. Harvest of summer squash is well underway with first pickings, packings and deliveries made on Tuesday. Harvest of cabbage, collard greens and kale greens continues, but four wheel drive tractors and walking in mud almost knee deep in some areas has been required for a timely harvest. Market demand for all product is strong at this time and crop quality has been good. Sweet corn harvest also began last week on early planted plastic corn in Highland county. Planting of summer squash, sweet corn, pumpkins, green beans and cabbage will HOPEFULLY resume within the next few days since growers have been unable to get into fields to plant for over 2 weeks and these plantings are very behind. The recent heavy rains (over 11 inches for June so far, the wettest June on record from the Weather Service) have also hindered herbicide applications, cultivations, insecticide and fungicide applications, and badly needed sidedressing of most all crops with Nitrogen. These delays in sidedress applications are beginning to show especially in Sweet Corn fields where fields are beginning to show yellowing from leaching of the at planting nitrogen as well as the VERY WET soil conditions.

Cucumber beetle pressure has been great on pumpkins, cukes and squash requiring frequent insecticide applications. Japanese Beetles are beginning to show up in numbers on Eggplant.

Sclerotinia continues to show up on tomato plantings, due mostly to the cold and wet soil conditions this spring. Many areas in fields have been flooded out due to standing water. This standing water has also caused concern with growers with the possibility of Phytophthora blight in several vegetable crops, however, none has been diagnosed yet. Pumpkins that have not yet been planted are making growers nervous, since many markets are asking for first deliveries to be made up to one week earlier this season compared to past seasons, beginning about 1 week after labor day for some markets.

TOMCAST Report

Disease Severity Value (DSV) Hotline -1-800-228-2905

Jim Jasinski

Field Day Reminder

July 7, 1998 3:00 - 7:00 PM Piketon Horticulture Field Day. At the research and Extension Center, 1864 Shyville Rd. Piketon, OH. Featured crops this year are blueberries and strawberries. For complete program details and directions, call Tom Wall at: 614-292-4900. Don't forget to visit the VegNet website to look at the Vegetable Calendar of Events.

What's New At The VegNet Web Site

Visit: "The Problem of The Week" For Pictures of...
Timber Rot and Hail Damage.

The Meigs /Washington Vegetable Tour from SE Ohio, (Sweet corn, tomatoes + peppers)

Check Out the New Look of the Tomcast Section (requires your browser to be able to view frames.)

+ A New Tomato Research Report by C. A. Wyenandt, R. M. Riedel, M. Bennett and C. Welty.

From The Vegetable Crops Planner: Links now provided to the National Weather Service Offices in Cleveland and Wilmington, OH. Provides Agricultural Observations, soil temperatures, climate summaries, growing degree days and much more.

1998 Ohio Vegetable Production Guide - Online. Visit: "The Library

Return to Vegetable Crops Homepage Ohio State University Extension

We appreciate very much the financial support for this series of vegetable reports which we have received from the board of growers responsible for the Ohio Vegetable and Small Fruit research and Development Program. This is an example of use of Funds from the "Assessment Program".

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