

Corn Flea Beetle and Stewart's Wilt on Sweet Corn:  
C. Welty

After a fairly mild winter, we can expect severe problems from Stewart's bacterial wilt in most parts of Ohio. The disease causes reduced yields, and an entire planting can be stunted or killed. The disease is transmitted primarily by the corn flea beetle. A traditional prediction rule for Stewart's wilt is to calculate a flea beetle index by adding the average temperature (Fahrenheit) for December plus average temperature for January plus average temperature for February. If the index is below 90 then wilt should be negligible. If the index is 90 to 95 then wilt should be light to moderate. If the index is 95 to 100 then wilt should be moderate to severe. If the index is over 100 then wilt should be severe. For the 1998/99 winter, flea beetle index values for some Ohio locations are listed below.

LOCATION      INDEX      WILT PREDICTION

Fremont	88	negligible
Hoytville	93	light to moderate
Wooster	98	moderate to severe
Mount Vernon	98	moderate to severe
Kingsville	98	moderate to severe
S. Charleston	101	severe
Columbus	102	severe
Delaware	105	severe
Miami	105	severe
Jackson	110	severe
Piketon	111	severe

Cultural control:

An important management option for Stewart's wilt is to use resistant varieties. Although most of the early yellow sugary (su) varieties are susceptible to Stewart's wilt, there are susceptible varieties among bicolor and white varieties, and among sugar-enhanced (se) and supersweet (sh2) varieties. See yearly editions of the Midwest Vegetable Variety Trial Report for susceptibility ratings for hundreds of sweet corn varieties under study by J. K. Pataky at the University of Illinois.

Scouting and Action Thresholds:

Fields should be scouted several times per week during the 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. Scout 20 adjacent plants in 5 different sections of each planting, count the number of beetles on those plants. For wilt-susceptible varieties, treatment is suggested if there is an average of 6 flea beetles per 100

plants. For wilt-tolerant varieties, treatment is suggested if there is an average of 2 beetles per plant and 25% of the stand is damaged by heavy leaf feeding.

#### Chemical Control:

Insecticides can be used to control corn flea beetle in a preventive way by applying systemic insecticides to the soil at planting time. Three soil insecticides labeled for sweet corn are systemic: Furadan, Counter, and Thimet (phorate). Note that some of the soil insecticides used for corn rootworm control are not systemic and thus will not control corn flea beetle; these include Force, Fortress, Aztec, diazinon, Dyfonate, Lorsban, Pounce, and Mocap. Few efficacy studies on this pest have been published; a field trial with systemic soil insecticides conducted at Univ. of Delaware in 1980 showed 54% of plants with flea beetle feeding injury when untreated; 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).

Insecticides may be applied as foliar sprays if scouting indicates that the action threshold has been exceeded; labeled materials include carbaryl (Sevin), pyrethroids (Asana, Ambush, Pounce, Warrior), Lannate, Lorsban, diazinon, methoxychlor, and PennCap-M. None of these has systemic activity. Several sprays may be needed during the seedling and early whorl stages if a field continues to be invaded by newly emerged beetles after the initial treatment.

#### Tillage/Cultivation Considerations

William Evans, O.A.R.D.C. Muck Crops Branch

As part of integrated farm management, growers should consider tillage in terms of what the crop needs. Primary tillage for initial ground prep is combined with secondary tillage for seedbed preparation. These operations should be done with a minimalist approach, using the least number of passes and least aggressive procedures to achieve the results desired. More passes, more aggressive equipment (rototillers, etc.) can lead to pulverizing and compacting the soil. This can enhance crusting, reduce stands, and increase the risk of flooding damage. During the season, avoid recreational tillage and cultivation. Each farm/soil is different, with some requiring more tillage than others, but all will benefit from conservative choices in tillage and cultivation. Your wallet will also benefit from lower fuel use, less wear and tear on equipment, and quite possibly, higher yields from better performing soils.

Lastly, pay close attention to soil moisture. Potential damage from tillage increases with soil moisture. Your OSUE county agent can help you better understand the soil types on your farm and how to make sound tillage decisions.

#### Ohio Turnpike Farmers' Market Update

Ron Overmyer

A group of 5 growers have formed a cooperative entitled the Ohio Travel Center Farmers' Market Association. Three additional members have joined the initial 5 members who started the organization. The association is in the process of contracting with the Ohio

Turnpike Commission to operate farmers' markets at the new Ohio Turnpike Travel Centers. Additional producers are welcome to join the association. There is a \$100 one time membership fee. Table assignments will be on a first come, first served basis based on when the initial membership fee is paid. There will also be an annual seasonal fee per table. Anyone wishing more information about this initiative can contact me.

Following are some details for your information;

1. It will not be final that we will have farmers' markets on the turnpike until we have a signed contract.
2. There are sixteen new travel centers being constructed at 8 sites (Two at each site. One on the north side and one on the south side.) There may not be farmers' markets at all of the travel centers.
3. There is the potential of eight farmers' market tables at each travel center.
4. 43.1 million vehicles travel the turnpike each year. The peak months are June, July and August.
5. Tentative minimum market operation dates and times are Memorial Day through Halloween, Friday through Sunday, holidays, and 11:00 a.m. to 6:00 p.m.
6. Only Ohio producers with Ohio produce will be able to sell at the markets.
7. Below is the tentative schedule for the construction of the travel centers. The association is planning on farmers' markets at the Sandusky, June, 1999 locations for this year.

Williams County - Not Set

Indian Meadow Plaza (1N)

Tiffin River Plaza (1S)

Lorain County - 2000

Middle Ridge Plaza (5N)

Vermillion Valley Plaza (5S)

Lucas County - Not Set

Oak Openings Plaza(2N)

Fallen Timbers Plaza (2S)

Cuyahoga County - Oct./Nov.1999

Great Lakes Plaza (6N)

Towpath Plaza (6S)

Sandusky County - Not Set

Blue Heron Plaza (3N)

Wyandot Plaza (3S)

Portage County - 2000

Portage Palza (7N)

Brady's Leap Plaza (7S)

Sandusky County - June, 1999

Erie Islands Plaza (4N)

Commodore Perry Plaza (4S)

Mahoning County - Not Set

Mahoning Valley Plaza (8N)

Glacier Hills Plaza (8N)

8. The association directors and officers are; Dave Rimelspach, Fremont - President & Director, Jim Burks, Tiffin - Vice President & Director, Betty Eshleman, Clyde - Secretary &

Director, Don Anna, Garrettsville - Director, Gary Sweet, North Ridgeville - Director, Rich Eshleman, Clyde - Treasurer (but not a director)

9. There may be an opportunity for growers throughout the state to network in this initiative.

I will keep you posted. Please contact me if you have questions.

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Doohan Office Hours:

To all fruit and vegetable growers: As the season progresses I will be in the field more and more often. I will maintain regular office hours on Monday and Friday mornings until 11 AM and I will often be in the office on Wednesday afternoons. If you do not reach me directly, please leave a message on my answering machine and I will call you back as soon as possible. It's best to suggest a time to call when I am likely to reach you. If you have the internet, consider sending me an email message at doohan.1@osu.edu.

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The 7-10 Day Outlook\*

Temperature:

From 27 APR to 02 May, the mean surface temperature will be 50-60 degrees F for most of OH except the northern 1st and 2nd tier of counties where the temp will range 40-50 degrees.

From 02 May. to 07 May, the mean surface temperature will range 60 to 70 degrees for all of OH.

Precipitation:

From 27 APR to 02 May, expect less than 0.1 inches for most of northeast OH and the first and second tier of northern OH counties. Expect 0.1 to 0.5 inches in a band from west central to SE OH. Expect 0.5 inches in extreme SW and S central counties.

From 02 May. to 07 May, expect 0.5 to 1.0 inches for all of OH

What's New At The VegNet Web Site

From the Vegetable Crops Branch At Fremont  
1998 se Sweet Corn Variety Trial  
1998 Fresh Market Cabbage Cultivar Evaluation  
1998 Fresh Market Vegetable Reports from the Enterprise Center at Piketon.  
1998 Colored Pepper Cultivar Trial  
1998 Fresh Market Tomato Cultivar Evaluation  
Evaluation of Eastern Style Muskmelons for Southern Ohio, 1998  
Mechanical Harvesting Regimes for Processing Bell Pepper Production in Ohio  
>> 1998 Pumpkin Yield Data is Here!...Plus the First Set of Pumpkin Pictures

See how your favorite varieties performed.

Check out new varieties.

View Powdery Mildew Tolerance ratings

plus the effects of spray programs on pumpkin production. More pumpkin pictures coming.

First Look At:... Ohio Fruit and Vegetable Congress, Feb. 1999 Complete Truck Crops, Processing Crops and Potato Programs. Visit: "The Talk Between the Rows".

In: "Problem Of The Week": Late Blight Warning for OH Greenhouse Tomatoes plus problems from previous weeks.

In The Pumpkin Patch, JULY 1998, My Pumpkins Are Bigger Than Yours Returns, See: Bacterial Wilt, Angular Leaf Spot and Crop Status.

Visit: "The Problem of The Week" For Pictures of...

Septoria Leaf Blight and Phytophthora Blight of Tomato.

Angular Leaf Spot, Buckeye Rot and Phytophthora Blight of Cucurbits.

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.

1999 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".

Where trade names are used, no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce

information that is complete, timely and accurate, the pesticide user bears the responsibility of consulting the pesticide label and adhering to those directions.

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