

New Insecticide Registrations
by C. Welty

Correction of information in 2000 Ohio Veg Production Guide and presented at meetings last winter: although 'Admire' is now labelled for use on cucumbers and other vine crops for cucumber beetle and aphid control, 'Provado' is not yet labelled for use on these crops. Both of these products contain imidacloprid and are made by Bayer Corp.

'Danitol 2.4 EC' is now labelled for use on melons and cabbage and other head and stem Brassica crops, and the target pest list on tomatoes has been expanded. Danitol is a pyrethroid that contains fenpropathrin as the active ingredient. It is made by Valent Corp. On melons, Danitol at 10.7 fl oz per acre controls fall armyworm and twospotted spider mite with a preharvest interval of 7 days. On the Brassica crops, Danitol alone at 10.7 to 16 fl oz per acre controls cabbage looper and imported cabbageworm and the preharvest interval is 7 days; on brussels sprouts and cauliflower, it controls diamondback moth when mixed with Orthene and the preharvest interval is 14 days. On tomatoes, Danitol has been registered since 1995 for control of fruitworms, but the label now includes stink bug and twospotted spider mite.

'Surround WP': a new crop protectant made by Engelhard Corp. is now registered for use on several veg crops as well as on apple, pear, peach, and processing brambles. Surround is a product of particle film technology. It protects crops by creating a physical barrier to pests rather than poisoning the pest. Its active ingredient is kaolin, which is a common food additive. When sprayed on a crop, Surround forms a barrier film that acts as a broad spectrum protectant for preventing damage from various pests and diseases. It also is a growth enhancer and protectant against sunburn and heat stress. On tomato, eggplant, pepper, Surround suppresses Colorado potato beetle, flea beetles, tomato fruitworm, and tomato pinworm when used at a rate of 6.25 to 25 lbs per acre. On onion at a rate of 6.25 to 12.5 lbs per acre, it suppresses onion thrips. On cucurbits at a rate of 6.25 to 25 lbs per acre, it suppresses cucumber beetles. For all of these pests, it should be applied at 7-14 day intervals. Surround is sold in 25-lb bags and will be distributed through UAP. The retail price is not certain but is likely to be about \$15-17 per 25 lb bag. Surround is acceptable to growers who are meeting organic standards.

Predictions for Corn Flea Beetle and Stewart's Wilt on Sweet Corn
by C. Welty

Sweet corn growers can expect problems with Stewart's bacterial wilt in most of Ohio again this summer. 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 rule for predicting severity of Stewart's wilt is to calculate a 'corn flea beetle index' by adding the average temperatures (degrees Fahrenheit) for December, January, and 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.

Flea beetle index values for 11 Ohio locations for the past winter are listed below. Averaged over 12 Ohio locations, December 1999 was 1.8 degrees higher than normal, January 2000 was 1.0 degree lower than normal, and February 2000 was 7.3 degrees higher than normal, making this year's index values about 8 points higher than normal. Stewart's wilt in the upcoming growing season is looking more severe than normal but not as severe as in 1998 and 1999.

Flea beetle index values for 11 Ohio locations for the past winter

Severe: Jackson 105; Oxford 101; Piketon 107; Ripley 101

Moderate to Severe: Columbus 96; Kingsville 96; Wooster 96

Moderate: Delaware 95; Hoytville 90; S.Charleston 95

Negligible: Fremont 87

Cultural control:

An important management option for Stewart's wilt is to use resistant varieties.

Shown in Table 1 (below) are ratings for many popular hybrids.

Table 1. Susceptibility of sweet corn hybrids to Stewart's Bacterial Wilt as rated by Jerald Pataky (Univ. of Illinois) on a scale of 1 = most resistant to 9 = most susceptible.

Hybrid categorized by reaction to Stewart's wilt

RESISTANT (rating 1, 2, 3)

su(*) bicolor(**)

Sweet Sue (2)

su white

Silver Queen (3)

se yellow

Incredible (3) Sugar Ace (3)

Merlin (3)

se bicolor

Ambrosia (1) Mystique (3)

Encore (2) Precious Gem (3)

Lancelot (2) Table Treat (2)

se white

Argent (2)

sh2 yellow

Day Star (3) Punchline (3)

Prime Plus (3) Saturn (3)

Primetime (3) Zenith (2)

sh2 bicolor

Candy Store (3)

INTERMEDIATE (rating 4, 5, 6)

su yellow

Merit (5) Seneca Horizon (6)

se yellow

Bodacious (5) Seneca Daybreak (4)

Kandy King (5) Sweet Riser (6)

Kandy Korn (4) Tablemaster (4)

Kandy Plus (5)

se bicolor

Bravado (5) Native Gem (6)

Clockwork (6) Parfait (4)

Cochise (6) Seneca Arrowhead (6)

Delectable (5) Seneca Dancer (5)

Double Choice (6) Seneca Tomahawk (6)

Ecstase II (6) Sensor (5)

Ivanhoe (6) Sunset (6)

Jackpot (6) Temptation (6)

se white

Brillance (5) Silver King (5)

Celebration (5) Silver Princess (5)

Frosty (5) Sugar Snow II (6)

Seneca Sensation (5) Sweet Ice (5)

sh2 yellow

Challenger (5) Fortune (4)
Envy (5) Morning Star (6)
Flagship II (4)

sh2 bicolor

Candy Corner (6) Madonna (6)
Double Dots (5) Odyssey (5)
Fortune bicolor (6) Starship (4)
Fresh Start (5) Starship II (4)

sh2 white

Boreal (4) Sugar Bowl (6)
Even Sweeter (5) Vail (5)
Ice Queen (4)

SUSCEPTIBLE (rating 7, 8, 9)

Su yellow

Earlivee (8) Jubilee (9)

sh2 yellow

Bandit (7) Samson (7)
Impulse (9)

sh2 bicolor

Amazingly Sweet (8)

sh2 white

Snowbird (9)

(*) Gene Type

(**) Kernel Color

Chemical control by seed treatment:

A new method of corn flea beetle control recently became available to Ohio growers. Seed treated with 'Gaucho' insecticide in Idaho, where most sweet corn seed originates, is now allowed for end-use in Ohio. This arrangement is due to Ohio supplying information to the Idaho Dept. of Ag. so that Ohio end-users are included on a Section 18 emergency registration granted to Idaho. Gaucho contains the active ingredient imidacloprid, the same a.i. that is in Admire and Provado. A representative at one seed company recently contacted says that Gaucho-treated seed costs about \$1 per pound more than untreated seed. Data have not been found comparing Gaucho seed treatment with any of the 3 systemic insecticides (Furadan, Counter, Thimet) commonly applied to the soil at planting time for flea beetle control, but a test done by J. Pataky in Illinois showed that the degree of

control by Gaucho was roughly equivalent to using a hybrid with one higher level of resistance (on a scale with 9 levels).

Crop Reports

H. Kneen, W. Evans

NorthCentral:

Planting in the Celeryville area began during the warm spell of early March. Soils were abnormally dry for this time of year. This meant no spinning tires and almost perfect moisture for plowing and secondary tillage. Onions, parsley, and brassica greens are in. Significant portions of the rye cover crops are beginning to yellow having been sprayed earlier in the month in anticipation of late March/early April plantings.

SouthEast:

The first sweet corn was planted March 24 and 25 under clear plastic. Cabbage transplants have been planted for several weeks as soil, weather and temperatures were close to ideal if an early crop is to be harvested. Spring vegetable transplants are looking good. DIF is being used to keep stretching to a minimum. I expect the first initial sweet corn directly in the field to be occurring by the early part of next week.

The past few days have been wet and cooler, highs only in the 50's but are expecting sunnier days ahead. I suspect we are 10-14 days ahead of normal in plant development. Peaches and star magnolias along the river are in full bloom and apple blossoms are beginning to bloom.

What's New On The Web

From Dr. Brent Rowell, Univ of KY,
email: browell@ca.uky.edu

Our new KY Vegetable Recommendations book is on the web now. A print version is also available. The introductory section on marketing might be of interest to southern OH tobacco growers.

<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>

The marketing section is also available as a separate publication.

<http://www.ca.uky.edu/agc/pubs/id/id134/id134.htm>

What's New At The VegNet Web Site

Visit: "The Library, Online Edition of the 2000 OH Vegetable Production Guide, NOW AVAILABLE.

The OH Vegetables Production Guide ranks #22 in top downloads from OSU Extension Ohioline with over 1,000 downloads. Most of the new features are available in the online edition including the New Insecticide Efficacy tables. The new Pumpkin Production Chart is not there but I hope to have it posted soon in "The Pumpkin Patch" section of the VegNet website.

NEW! VegWeb Fact Sheets.

This new feature offers some valuable information on certain aspects of vegetable production that you can print out directly in your home or office. The first two are by Dr. Mac Riedel, OSU Plant Pathology, and are available from the VegNet homepage.

Fungicides Labeled for Pumpkins

Confused by the many new fungicides now available for pumpkins. Check out this fact sheet to see how to use these fungicides.

Fungicide Activity For Control of Tomato Diseases Which fungicide is best for a particular tomato disease.

Available from the Vegetable Crops Homepage, [Click Here!](#)

The 1999 Pumpkin Review and Slide Show.

Yield Data plus pictures of pumpkin cultivars from this year's trials. Also, see pumpkin varieties rated for powdery mildew resistance. There are many new and interesting pumpkin varieties in all size categories.

Visit: 'The Pumpkin Patch' for pictures and yield data.

The 1999 Green Pepper Evaluation and Slide Show.

Yield Data Slide Show From The Muck Crops Branch at Celeryville,
From The Enterprise Center

Comparison of Disease Control on Fresh Tomatoes using TOMCAST and SKYBIT to Time Fungicide Applications.

Evaluation of WaterMelon Cultivars for Southern Ohio, 1999

1999 Ornamental Corn Evaluation

Evaluation of Eastern Style Muskmelons for Southern Ohio, 1999

[Link To Research Summaries From The Enterprise Center at Piketon.](#)

[Return to Vegetable Crops Homepage | Ohio State University Extension](#)

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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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