VegNet Vol. 4, No. 14. June 4, 1997
Ohio State University Extension Vegetable Crops

Ammo label expanded for cole crops

C. Welty

Ammo has been labeled for the past few years for use on cabbage, head lettuce, and bulb onions. The 1997 label now includes collards, kale, and mustard greens; broccoli, cauliflower, and Brussels sprouts; kohlrabi; Chinese broccoli, Chinese cabbages (napa, mustard, bok choy,), cavalo broccoli, broccoli raab, mizuna, mustard spinach, and rape greens. Ammo is a pyrethroid with cypermethrin as the active ingredient, formulated as a 2.5 EC and a WSB (38.7% a.i.). It controls flea beetles, caterpillars, and thrips. The pre-harvest interval is one day.

Optimizing Use of Fungicides for Potato Late Blight control in 1997

by Rosemary Loria,
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Late blight has been a major threat to the New York potato crop for several years. During 1996, this disease was discovered in all potato growing areas of the state. Never- the-less, New York growers were able to control late blight through the careful use of fungicides. Growers must once again expect to battle late blight in their fields in 1997. Potato and tomato production areas with earlier growing seasons, such as Florida and North Carolina have already experienced late blight this year.

Once inoculum from infected tubers in cull piles, rotated fields or seed lots appears, fungicide applications are the major tool growers have to control late blight. We again have three "Section 18" fungicides (Acrobat MZ, Curzate M-8 and Tattoo C) available in addition to the protectant materials which have been registered for many years. Growers need to choose which fungicides to use, then decide on application rates and frequency of applications. These choices should be based on the occurrence of late blight in the area and how favorable the weather is for late blight, as well as economic considerations.

National Fungicide Test.

During 1996, many researchers cooperated in a national late blight fungicide testing program in which protectant and Section 18 fungicides were evaluated for late blight control at 10 locations throughout the United States and Canada. Phytophthora infestans strain US-8 was present at most test locations, though other immigrant genotypes were present at some Western sites. The most important conclusion of the study was that most of the protectant fungicides (Bravo Weather Stick, Dithane M-45, Polyram + Super Tin) controlled foliar late blight as well as did the Section 18 fungicides (Bravo/Tattoo C, Dithane/Acrobat, Dithane/Curzate) in all locations. The Dithane/Champ program was less effective than the other

protectants. However, it is critical to realize that these trials were conducted under standard conditions: applications were made weekly and fungicide coverage was excellent. Also, it is important to remember that only foliar disease control was evaluated in this national study.

New York Trials.

Fungicide evaluations conducted by Bill Fry and Hilary Mayton, Department of Plant Pathology, Cornell University were included in the national testing program. The New York site was considered to have relatively high disease pressure, compared to most other locations. The best treatment for control of foliar late blight was Bravo Weather Stik (1.5 pt), however, Manex (1.6 qt) + Supertin 80 WP (2.5 oz.) was not statistically different in control of foliar late blight. In this trial, the only Section 18 fungicide that was in the same efficacy category as Bravo Weather Stik was Acrobat MZ WP (2.25 LB). Unfortunately, fungicides that were very effective in controlling foliar late blight were not necessarily effective in controlling tuber blight. Acrobat MZ was the only Section 18 fungicide that provided tuber blight control, based on tuber infection in plots treated with the standard protectant fungicides.

Control in commercial fields.

The results from the National Fungicide Trial are very helpful in planning your fungicide program. These results certainly demonstrate that even the new, aggressive strains of late blight usually can be controlled with a protective program, if fungicide applications are made on at least a weekly schedule and if fungicide coverage is excellent. Though late blight did develop in some fields in New York last year, the vast majority of fields were well-protected. This is consistent with the results of the National Fungicide Trial, because most growers did rely on protectant fungicides for most of the growing season. However, we did have cases where late blight became established in commercial fields when regular applications of protective fungicides were made. It is likely that inadequate fungicide coverage, particularly when plants were growing rapidly, was the primary reason for these problems. The experience of some growers in New York suggests that the Section 18 fungicides can be very useful in bringing late blight outbreaks under control. Also, efficacy of the fungicides did vary among experimental locations in the national trial: control of foliar infection with Bravo Weather-Stik ranged from 70 - 99%. There is likely a place for Section 18 fungicides in late blight control programs when disease conditions are severe or when late blight has become estanblished in fields. Also, control of tuber blight may warrant the use of Acrobat MZ, particularly in situations where the tubers cannot be marketed directly out of the field.

TOMCAST and BLITECAST Update

DSV Hotline 800-228-2905

Jim Jasinski

Disease Severity Values (DSV) have been very slowly accumulating since May 15, but with the recent warming trend and continuous rainfall throughout the tri-state network, DSV have really taken off. In addition to the early blight model (TOMCAST), the late blight model (BLITECAST) has also skyrocketed in the past few

days, sending most of the stations into a warning mode. A BLITECAST warning for a station means that weather conditions in that area have been conducive for late blight development.
If a fungicide has not been sprayed within the past 7-10 days, and inoculum (the fungus) is present, expect to see symptoms develop on foliage in 7-14 days. Up to this point, late blight has not been reported in OH, IN, or MI. There have been reports of outbreaks from North Carolina. 18 Severity Values (SV) is the action threshold for BLITECAST.
TOMCAST DSV, BLITECAST SV, Report.
As of June 3, information concerning TOMCAST DSV, BLITECAST SV, and rainfall for the previous 3 days will be given in that order for each station below:
Ohio Freshmarket:
Claridon-7,21 (Late blight warning), 2.74";
Hillsboro-11, 17 (1 unit away from warning), 2.56";
Racine-22,19 (Late blight warning), 1.08".
Ohio Processing:
Fremont-15, 20 (Late blight warning), 2.92",
Tipp City- 15,16 (1 unit away from warning), 1.85".
Napoleon and Gilboa have 3 DSV as of May 31.
Indiana Processing:
Hobbs- 14, 19(Late blight warning), 1.26",
Kokomo- 10, 7, .57
", LaCrosse- 12, 16 (2 units from warning), .40",
Union City- 18, 21(Late blight warning), 1.66"
.

Michigan Processing:
Constantine- 5, 3, .34",
Petersburg- 13, 25(Late blight warning), 3.72".
Information concerning TOMCAST DSV and BLITECAST SV can be found on DTN & FarmDayta networks under both the Ag and Produce sections. Next week we expect to have some insect trap counts available.

Ohio Carrot Weevil Update-2
W. Evans and Casey Hoy

Aster yellows is transmitted by the aster leaf hopper and early tests show leaf hoppers to be highly infected with aster yellows virus. Growers should be monitoring their crops for hoppers and follow control recommendations listed in the OH Vegetable Production Guide.

Crop Reports
B. Evans, B. Bergefurd and T. Harker

NorthCentral
Rain totals averaged 2-4 inches across the region this past week and soil temperatures remain cool (low 60's). Crop development continues to be slow, especially sweet corn. Despite wet conditions, radish harvest continues. Other salad crops are near harvest. Major insect problems include leaf hoppers and flea beetles.
Southwest
Pepper transplanting and replanting continues. Cuke beetles have become prevalent on squash, melons, cukes and pumpkins. Growth of all vegetables is slow with estimated harvest dates running 3-4 weeks behind normal. Tomato, melon and sweet corn planting continues. There has been a considerable amount of wind and cold damage on melons and many fields had to be replanted due to the prolonged periods of temperatures below 50 degrees. Plastic sweet corn is growing much faster and better than bare ground planted corn. Some growers are concerned about the potential for bacterial diseases on peppers and tomatoes.

Calendar Of Events
June 17, Piketon Horticulture Field Day,
Tours start at 3:00 PM at Piketon Research and Extension Center, 1864 Shyville Rd., Piketon, OH. For directions and information, call 614-292-4900.
June 18, Washington-Meigs Vegetable Tour.
At Doak Greenhouse and Shane Pugh, 6:00 PM. For directions and information, call Jim Barrett at 614-376-7431.

The 10 Day Outlook:
Temperature:
For 4 Jun to 9 Jun, the mean surface temperature will be 50 degrees for all of OH.
For 9 Jun to 14 Jun, the mean surface temperature will be 60 degrees for all of OH.
For Cincinnati on 9 Jun: high 68, low 60; 13 Jun: high 80, low 65; 15-19 Jun: High 70-78, low 58-65.
For Columbus on 9 Jun: high 65, low 60; 13 Jun: high 80, low 62; 15-19 Jun: High 70-78, low 58-65.
For Cleveland on 9 Jun: high 65, low 55; 13 Jun: high 78, low 60-62; 15-19 Jun: High 68-75, low 55-65.
Precipitation:
From: 4 Jun to 9 Jun, 0.5 to 1.3 inches expected in northern 1/3 of OH. Other areas south can expect about 1.0 to 1.5 inches of precipitation.

From: 9 Jun to 14 Jun 0.5 to 1.0 inches expected for central, east central, south east, south central OH. Other areas can expect about 0.3 to 0.6 inches of precipitation.
For Cincinnati from 4 to 7 Jun: 0.3 inches; 8 to 11 Jun: 0.8 inches; 12 to 15 Jun: 0.15 to 0.25 inches.
For Columbus from 4 to 7 Jun: 0.25 inches; 8 to 11 Jun: 0.8 to 1.2 inches; 12 to 15 Jun: 0.4 to 0.6 inches.

For Cleveland from 4 to 7 Jun: 0.1 to 0.2 inches; 8 to 11 Jun: 0.5 to 0.7 inches; 12 to 15 Jun: 0.4 to 0.5 inches.
(From NWS, OSU, COLA and WXP-Purdue)

What's New At The VegNet Web Site
Tour of Vegetable Production in the OHIO River Valley
Preview Of The Washingtin/Meigs County Vegetable Tour
Sweet Corn Under Clear Plastic
Current Status of Vegetable Crops in Southern OH.
A Look At The Tomato Crop
Visit: "The Talk Between The Rows"
Some Tomcast Stations Now Reporting Disease Severity Values Visit TOMCAST

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".