

Selecting Chemicals For Use On Pumpkins R. Riedel

1. There has been some confusion over the use of Nova 40W on pumpkins this year. Nova has no full EPA Section 3 registration (Federal Label) for cucurbit crop in the United States. A Section 18 Emergency Exemption for Novas 40W has been issued for use on cucurbit crops (Cucumbers, Melons, Pumpkins, Squash, Watermelon) in Ohio from July 16 to September 30, 1999 for the specific control of Powdery Mildew. The label recommends the application of 2.5 oz (0.063 lb ai) per acre beginning at the first sign of disease and making subsequent applications at 7 to 10 day intervals. No more than 6 applications or 15 oz product (0.38 lb ai) can be used per acre per year. Applications should not be made through any type of irrigation systems. Applications should not be made within 48 hr of harvest.

There are crop rotation restrictions.

Nova is a specific control for Powdery Mildew. It will not adequately control other fungal diseases of cucurbit crops. We have two excellent broad spectrum fungicides (Quadris (azoxystrobin) and Bravo (chlorothalonil)) for the wide range of fungal diseases attacking pumpkins each year. Quadris is good for control of Powdery Mildew but Bravo is only marginal.

Growers using Quadris will note that one to one alternation of this material with another fungicide with a different mode of action (Bravo will generally be the alternate fungicide) is required by the label to decrease the possibility of fungi becoming resistant to the fungicide. In other words, use Quadris one week, Bravo the next, and so on to the end of the spray season. Since Bravo is not good for control of Powdery Mildew, Nova 40W must be added to the Bravo spray to adequately control Powdery Mildew in the spray alternating with Quadris.

Growers using exclusive Bravo programs will need to add Nova in each spray during the Powdery Mildew season, August 1 through September).

Growers should note that Quadris is a good control for Downy Mildew, a problem for southern Ohio late in the season. Generally we have had to add a material like Ridomil Gold to Bravo for adequate control of this disease when it is serious.

Tomato Diseases.

Bacterial Canker is fairly easy to find in fresh market and canning tomatoes in Northern Ohio now. It seems to be worst in fields where flats of transplants were dipped in a common water tank prior to planting. This practice will spread the bacteria from one or two infested flats to every flat used in the field. Growers might want to consider watering flats with a hose instead of dipping.

This is a very difficult disease to control. Fix copper fungicides mixed with EBDC fungicides give marginal control but they are the only materials available.

Tomatoes should not be planted in infested fields for at least two years.

New insecticide registration:

C. Welty

FMC Corp. has announced registration of Capture 2EC for use on sweet corn (PHI, 1 day), peas and beans (3 d), head and stem Brassicas (7 d), cucurbits (3 d), and eggplant (7 d). Target pests are many caterpillars, beetles, and sucking bugs. At the high end of the rate range, it controls twospotted spider mite. Rates vary by crop, but range from 1.6 to 6.4 fl oz/A. The active ingredient is bifenthrin, which is in the pyrethroid class. Other bifenthrin products are Brigade WSB, which is used on strawberries, and Talstar 10WP, which is used on greenhouse ornamentals.

Organo-phosphate news:

Earlier this week, EPA announced that it is eliminating use of methyl parathion (generics and PennCap-M) on carrots, succulent peas and beans, tomatoes, broccoli, cauliflower, greens, lettuce, spinach. Existing stocks can be applied on these crops until 31 December 1999. Methyl parathion will remain available for use on cabbage, corn, dry beans, onions, and potatoes. Uses of azinphos methyl (Guthion) have also been restricted but changes appear to apply to fruit crops not to veg crops.

Insect trends:

Stink bug damage on tomato fruit was detectable for the first time this week in our tomato plots at Fremont, although we had been seeing adult stink bugs for several weeks. Stink bugs are presently in the small nymph stages. Damage on green fruit is white blotches or cloudy spots. If bugs feed on the fruit while it is green, the cloudy spot damage will change to yellow on the fruit surface when the fruit ripens. If bugs do not feed on fruit until it is already ripe, then the damage shows up as just cloudy spots without yellow on the fruit skin. We do not yet have an exact threshold for insecticide treatment on whole-pack processing tomatoes, but suggest spraying when damage is first detected, if >1% of fruit show damage.

Spider mite infestations

continue to be reported on melons, pumpkins, and other crops. In addition to the miticides (dimethoate, Metasystox-R, Kelthane, Agri-Mek) discussed in VegNet on 7 July, we have a brand new miticide available, Capture 2EC from FMC (see article above). On crops for which none of the miticides mentioned are registered, insecticidal soap (M-Pede) is the best option, although it is best used when plants are not under stress from high temperatures (>85F). Thorough coverage is needed for soap to be effective, because action is by contact.

European corn borer

The second generation of European corn borer is continuing to develop. Catches of moths in traps is still increasing; there were 180 corn borer moths in the Fremont blacklight trap during the past week, up from 65 the previous week. Egg laying by corn borer on silking sweet corn and peppers is likely now and for another few weeks. During this time, insecticide applied on a 7-day schedule on peppers and a 5-day schedule on sweet corn should give good control of corn borer.

Corn earworm

moths are being caught in many parts of Ohio this week, including Hillsboro, Columbus, Wooster, Celeryville, and Fremont. Catches have ranged from 3 to 8 earworm moths per trap in the past week. A 5-day spray schedule should give adequate control of corn earworm where trap catch is less than 6 moths per week and daytime temperatures are below 80F. If trap catch is 6 moths or greater per week and temperature is above 80F, then a 4-day spray schedule is needed.

EPA Acts to Reduce Children's Exposures to Two Older, Widely Used Pesticides,
From an EPA Release: Monday, August 2, 1999, Denise Kearns, 202-260-4376;
From Joe Kovach, OSU IPM Coordinator

The U.S. Environmental Protection Agency announced today cancellation agreements and risk reduction strategies to increase protections for American families and their children from risks posed by two of the oldest, most widely used chemical compounds that remain in use as pesticides today. EPA is eliminating specific uses of methyl parathion, and significantly lowering allowable residues for azinphos methyl (Guthion) on a wide variety of produce, including several fruits and vegetables regularly eaten by children.

EPA today also laid out a rigorous 18-month schedule for completing its review of all the "organophosphates," a group of 39 older, common pesticides, which include methyl parathion and azinphos methyl. In addition to the organophosphates, the Agency has targeted several other older, widely used pesticides for priority review within the next year and a half, including the pesticides atrazine, aldicarb (Temik) and carbofuran (Furadan), among others. The reductions EPA is making today will address the unique risks children face when exposed to pesticides. For example, it is known that some pesticides pose a greater risk to infants and children because their bodies and internal organs are still developing, which makes them much more susceptible to the effects of pesticides. Children also ingest greater quantities of food and drink relative to their body weight, as compared to adults, which increases their exposure to pesticides.

Based on its concerns, EPA is today eliminating the continued use of methyl parathion one of the more potent organophosphates on apples, peaches, pears, grapes, nectarines, cherries, plums, carrots, certain peas, certain beans, and tomatoes, among other fruits and vegetables. For azinphos methyl (Guthion) also considered to be a pesticide of concern, the Agency is reducing application rates and requiring practices that will result in significant reductions in allowable residues on apples, pears and peaches.

In addition to significantly reducing the use of methyl parathion and azinphos methyl on foods popular among children, EPA has taken a number of additional measures to reduce pesticide risks, as called for by FQPA, including:

completion of a review of one-third of all allowable pesticide residue levels on food by the August 3 deadline, as called for by FQPA;

requiring hundreds of new studies on neurological and developmental effects of pesticides that will enhance EPA's ability to evaluate pesticides more protectively than ever before;

new requirements that will provide farm workers with significantly greater protections;

registration of 47 new, safer pesticides that can serve as lower-risk alternatives to more toxic pesticides, such as the organophosphates;

EPA is also challenging manufacturers of pesticides to come forward with voluntary risk reduction measures similar to the requirements announced today.

By the end of next year, EPA is scheduled to complete its reassessment of the organophosphates and several other older, more commonly used pesticides, and to meet the FQPA's food safety goals. A schedule outlining the review of the organophosphates, and a progress report on FQPA is available at: www.epa.gov/pesticides

Crop Reports

R. Becker, B. Bergefurd, W. Evans, T. Harker

North Central: The Celeryville area has missed most of the recent rains. Less than 0.5 inches have fallen this week at the Muck Crops Branch. We are all irrigating for crop establishment and maintenance. The cooler days this week are welcome and may allow us to catch up to the weeds. Morning dews are promoting onion leaf blight (seen at the branch). We have also applied our first spray to parsley based on SkyBit tomato late blight DSVs (disease severity values), although no disease has been seen yet. A few corn borer and corn earworm moths have been trapped this week for the first time in several weeks. Variagated cutworm numbers have been high this week. Flea beetles, cutworms, and leafhoppers are present. Viruses are developing on lettuces, squashes, and a few pepper plants in the area. Powdery mildew is also present in squashes.

Some growers west of Toledo have received more than 8 inches of rain in the last two weeks. Tomato growers in the McClure area had some standing water as they began to near their first ethryl applications.

From Wayne County:

With the cooler temperatures, spider mites seem to be slowing down slightly, but are still of concern. They have now begun to show up in tomato plantings as very light infestations. However, with the problems we have had in other crops, growers are likely to treat even these light infestations before they have a chance to lay many eggs.

Peppers are finally starting to get a little better fruit set. Fields that have a good fruit set are being put on spray schedules to protect them from corn borer. No damaged pods have been found so far.

Sweet corn in the Wooster area is being put on a 4-5 day spray schedule for earworm since the trap count is now at 8 per week. Corn borer counts are going up as well with the Wooster count at 16 and the Copley count at 21. The Copley earworm count is 0. Late plantings of sweet corn checked Tuesday morning had high counts of flea beetle and required rescue treatments.

Late planted vine crops are being infested by cucumber beetles and require rescue treatments. It is also becoming common to find squash bugs starting to hatch. New eggs are also being laid.

Though early blight is noticeable in tomatoes and mildew is noticeable in the vine crops, their development is slow at this point. Growers are putting on fungicides, rotating them each time they spray. Data loggers at two separate locations recorded an accumulation of 14 DSV's at one location and only 6 at the other.

Southwest

Some areas received anywhere from 3 inches to no rain on Saturday night/Sunday morning. This rainfall was needed by all growers but unfortunately may be too late to save some crops. The rain and lower temperatures have turned the pumpkin crop around for

many area growers with many more female blossoms showing up this week. Growers that are able to irrigate are applying irrigation almost around the clock in some areas. Saturday high temperatures was resulting in sunburn on peppers, watermelons, muskmelons and even husks of sweet corn were being burned and bleached by the intense sun.

Planting of fall cabbage, broccoli and cauliflower crops began this past week.

Powdery mildew has shown up heavy in squash fields and is so far light in pumpkin fields. Cucumber Mosaic Virus is showing up in pumpkins and summer squash. Yellow squash and zucchini is having to be graded very close because of the virus showing up in the fruit.

Harvest of all crops continues with tomato harvest being at the high point of the season with the past 2 weeks high temperatures reducing the market window, with much harvest coming in the past 6 days. Buyers are saying that tomatoes are real heavy right now.

Harvests of melons, watermelons, summer squash, peppers, cabbage, sweet corn, cukes, eggplant etc. continues.

Volume of produce at the Bainbridge Produce Auction in Bainbridge, Ohio increased this past week as well as did the buyer demand for product. Average prices received at the auction are ranging at or above USDA Terminal Market and USDA Shipping Point Prices for most crops.

Keep in mind the OSU Extension Enterprise Center Horticulture Field Night, Monday August 16 at the Hillsboro, Ohio site (Southern State College) Route 62 North of Hillsboro. 6:00 pm till dusk. For More information contact Brad Bergefurd at 1-800-860-7232.

TOMCAST Report

J. Jasinski

DSV Hotline -1-800-228-2905

TOMCAST is a tomato disease forecasting network which many growers find aids in their timing of fungicide applications. As of August 4, the total TOMCAST DSV, are given for each station below:

The current stations and DSV counts as of August 4, 1999:

If you have further questions, please contact: J. Jasinski
at 937-454-5002 or
jasinski.4@osu.edu

The 7-10 Day Outlook*

Temperature:

From 04 Aug to 09 Aug, the mean surface temperature will be 60 to 70 degrees for most of OH, except for extreme southwest and southcentral counties will have a mean surface temperature of 70 to 80 degrees.

From 09 Aug to 14 Aug, the mean surface temperature will be 60 to 70 degrees for all of OH.

Precipitation:

From 04 Aug to 09 Aug, expect less than 0.3 inches for most of OH, except in a band from central to southeastern counties where you can expect about 0.3 to 0.5 inches.
From 09 Aug to 14 Aug, expect less than 0.2 inches for extreme northern OH; 0.2 to 0.5 inches through central OH and 0.5 to 1.0 inches for the southern counties.
During these periods, most of the precipitation will come from thunderstorms and rainfall levels can vary widely in the affected areas.
[Editors Note: Long term precipitation forecasts (5 days or more) are much less accurate than short term (the next 4 to 5 days)..]

What's New At The VegNet Web Site

Muck Crops DAY

If you didn't make the tour, take the virtual tour.

See: Lettuce, green onions, parsley and more.

Visit "Problem Of The Week", See: Spider Mites On Pumpkin Leaves

The Washington/Meigs Vegetable Tour

If you didn't make the tour, take the virtual tour. The Washington-Meigs Annual Twilight Vegetable Tour was held June 23. at Witten Farms, Take the virtual tour and see sweet corn, tomatoes, melons and more.

"Problem Of The Week from July 1"

See:

Command Carryover Damage on Tomatoes

Bacterial Wilt in Melons

Drought Conditions

A New Section to VegNet

This week see our newest section: Vegetable Pest Trap Summary

Here you can review the trap counts of various pests from around the state.

You can get to it from the main homepage.

Impatiens Necrotic Spot on Pepper Transplants

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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