Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

Vegetable News E-Alert ~ May 26, 2021

In this issue:

Eastern NY Veg News Podcast
Onion Thrips and Onion Maggot Management Recommendations with Dr. Brian Nault

by Ethan Grundberg, CCE ENYCHP

Cornell University vegetable entomologist Dr. Brian Nault discusses recommendations for managing onion thrips in 2021 with specialist Ethan Grundberg. Nault and Grundberg review basic principles of resistance management, using action thresholds to time insecticide applications, and season-long pesticide programs for managing thrips before discussing how the upcoming chlorpyrifos ban in New York will impact seedcorn and onion maggot management in 2022 and beyond.

https://soundcloud.com/easternnewyorkvegnews/onion-thrips-and-onion-maggot-management-recommendations-with-dr-brian-nault

Nutrient Deficiencies of Tomatoes

By Teresa Rusinek, CCE ENYCHP

As many greenhouse and high tunnel tomato operations are now in full swing, it is important to keep an eye out for potential nutrient deficiencies. This is of particular importance when growing tomatoes in pots using a fertigation system to supply plants with the bulk of their nutrients. Below is a table detailing some common tomato nutrient deficiencies along with typical remedies. Remember that pH affects the availability of nutrients in the soil, so monitor your pH frequently and make sure it is at the proper level (usually 5.4 to 6.2) before adding amendments. Since many nutrient deficiencies are challenging to diagnose, growers may also elect to send plant samples to a tissue analysis lab which will assay plants for all macro and micronutrients.

Calcium

- Dieback at growing points including root tip death
- Blossom end rot – distal end of fruit flattens out and develops necrosis
- **Apply calcium nitrate through irrigation system**
- **Apply calcium nitrate/ chloride foliar sprays**

Magnesium

- Interveinal yellowing progressing to interveinal necrosis
- **Apply magnesium sulfate through the irrigation system**

Nitrogen

- Slow growth; thin and upright plants; small fruit
- Rigid stems and petioles
- Younger leaves pale green, older leaves yellowing
- **Increase nitrate applied through irrigation**
- **Foliar sprays ineffective**

Phosphorus

- Slow growth dwarfed plants
- Dropping leaflets with outward curl; purple tint
- Poor fruit production
- **Apply phosphate through drip irrigation**

Potassium

- Yellowing of leaflets starting at tips and progressing inward
- Progresses to interveinal browning and necrosis
- **Apply potassium through irrigation system as potassium phosphate or potassium nitrate**

Post Emergent Sweet Corn Herbicides

By Chuck Bornt, CCE ENYCHP

I've already gotten a few calls from growers indicating that their pre-emergent herbicide applications on their sweet corn are not working – what is interesting is that some rowcover corn looks clean which I think is a result of having decent (in some cases maybe slightly excessive) moisture when that was planted back in April. However, with the dry conditions as of late, some of those plantings in the last 3 weeks might be in some slight trouble. A shot of rain possible today in the form of thunderstorms and the warmer temperatures we've been experiencing will also ensure that weeds are growing so my thoughts turn to what we can do for post emergent herbicides.

The post-emergent materials to choose from can be found in Table 1, but there are a couple of other things you will need to know before making your selection:

1. Know the weeds you are going after - some materials are very specific and only control a narrow spectrum or even a couple of species so you need to know what it is you have in your field.
2. You also need to know the stage of your sweet corn in order to know if you can broadcast the materials or use drop tubes to keep the herbicides out of the whorl in order to reduce the chance of injury to the crop.
3. In order for these herbicides to perform their best and have the best crop safety, you need to know which adjuvants are required and how to use other additives such as a nitrogen. To assist you with that, see Table 2 to help determine which additives are recommended for the different herbicides, but this is no substitute for reading the product labels!
4. As always, you need **to really pay** attention to the labels of these materials. Be aware of the "Post Harvest Interval" or PHI for some of these materials, especially if you are using them on plastic or row cover corn as you may be cutting it close between applications and harvest!

If you haven't used Stinger, it is one material that is highly effective, but on a very narrow range of weeds. It is effective on ragweed, certain nightshades and Canada thistle. I have also seen it hurt wild buckwheat and Jerusalem artichoke, but not completely kill it. You are allowed two applications of Stinger per season not to exceed 2/3 of a pint total per acre per season. The recommended rate is 0.33—0.66 pints per acre. If you use the highest rate of 0.66 pints, you have used the maximum amount allowed for the season.

Impact or Armezon have proven to be quite effective on many of the annual grasses that can be found in our local fields while being pretty safe on the corn. However, I have seen it used on grasses that were very tall and saw it stunt and turn it pure white, only to have them come back a few weeks later and start to regrow. The key with these materials is to use them when the grasses are small and make sure you follow the label and add the specific adjuvants and nitrogen sources. I highly recommend that you also add ¼ - ½ lb of atrazine to improve control and residual when using this product.

Halosulfuron or Permit/Profine/Sandea are also labeled for sweet corn and will control several tough broadleaf weeds such as pigweed, **small** velvetleaf and ragweed and mustards. Where I have seen this product work well is on yellow nutsedge – but the nutsedge has to be big with at least 3-5 leaves to be the most effective and a second application may still be needed. The use of a non-ionic adjuvant is required for optimal control. If using on sweet corn, Permit is the cheaper choice, but is not labeled on any other vegetables. Profine and Sandea are both labeled on sweet corn and many vegetables.

NY Sweet Corn Trap Network Report 5.25.21

Posted on May 25, 2021 by Marion Zuefle

(To subscribe to this blog post, go to https://sweetcorn.nysipm.cornell.edu/ and register).

This is the first post for the 2021 season. A few new sites were added this year and some sites were removed because the cooperator retired or could not continue. An updated map of the current sites can be viewed at the "About" page of this blog at https://sweetcorn.nysipm.cornell.edu/

Only three sites reported this week (Lyndonville, Ransomville and Hurley). One European corn borer (ECB)-E and one ECB-Z was caught at the Hurley site as well as two hybrid ECB. Two corn earworm (CEW) were caught at the Lyndonville site. No other moths were caught. First spring ECB moths begin to fly when accumulated degree days reach 374. Only a few of the sites have reached this and they are all located in eastern NY.

Sweet Corn Growers – We Need Your Help for Corn Earworm Information! Dr. Kelly Hamby, Associate Professor/Extension Specialist with the Department of Entomology at University of Maryland, is leading a team of researchers who have developed a survey to prioritize research and extension efforts for improving corn earworm management in sweet corn throughout the Northeast. We appreciate your participation in this survey and will use results to develop a grant proposal to try to get federal funding to address these needs. Please take a few minutes to fill out this survey: https://ume.qualtrics.com/jfe/form/SV_9vRh1xHnDp4KEaa

FSMA Inspection and On-Farm Readiness Review Updates

By Elisabeth Hodgdon, CCE ENYCHP

Is your farm ready for a FSMA Produce Safety Rule inspection? As the growing season ramps up, the New York State Department of Agriculture and Markets is booking inspections and educational On-Farm Readiness Reviews around the state to see farm activities in action.

This year, all farms covered by the Produce Safety Rule are eligible for inspection. In 2019, NYSDAM prioritized inspecting large farms (produce sales exceeding $500,000) and in 2020 inspected farms selling between $250,000 and $500,000 worth of produce. This year, the last group of covered farms, the smallest farms ($25,000 - $250,000 in produce sales), will be inspected for the first time. Inspections of farms following qualified exempt requirements will be scheduled at a later time to be determined. Routine inspections (second inspections) will be scheduled for large farms as need and schedules allow in 2021.

Farms of all sizes and exemption statuses are eligible to sign up for an On Farm Readiness Review this season. An On Farm Readiness Review is an educational visit to the farm by a NYSDAM representative and CCE educator. The visit includes a walk around the farm to observe activities while having a conversation regarding food safety practices. At the end of the visit, no notes or photos are taken off the farm. The farm is provided with guidance and resources to improve food safety prior to an official inspection; the OFRR itself is *not* an inspection. If you'd like to learn more and/or sign up for an On Farm Readiness Review, contact Steve Schirmer at (315) 487–0852 or steve.schirmer@agriculture.ny.gov

Still unsure whether your farm is fully covered, exempt, or qualified exempt? A good place to start is to take a look at your farm's sales figures and use the "Coverage and Exemptions/Exclusions Flow Chart" on the FDA's Produce Safety Rule website to see where your farm falls. Small farms selling less than $25,000 worth of fresh produce are fully exempt. Farms selling less than $500,000 of food (baked goods, milk, meat, hay and animal feed, etc.) are eligible for a qualified exemption based on the type of sales. These sales figures are adjusted for inflation and are currently $29,232 and $584,634, respectively. Note that due to the ongoing pandemic, the FDA is not enforcing qualified end user requirements for qualified exempt farms in 2020 or 2021 (or until announced otherwise).

For those who are familiar with the Produce Safety Rule and have taken the Produce Safety Alliance Grower Training Course, you may recall that the water and soil amendment subparts of the Produce Safety Rule are subject to change. No updates regarding finalized water and soil rules have been released at this time.

If you have questions regarding your farm's coverage status, you may contact Steve Schirmer, Aaron Finley (518-474-5235 or aaron.finley@agriculture.ny.gov), or your region's NYSDAM produce inspector for assistance. Additionally, CCE is available to assist you with resources and guidance in improving food safety on your farm. Contact Elisabeth Hodgdon (518-650-5323 or eh528@cornell.edu) for more information.

Biopesticides for Vegetable Diseases

Dr. Margaret McGrath, Plant Pathologist, Cornell University (Source: Long Island Fruit and Vegetable Update, CCE Suffolk County, Issue 7, May 20, 2021)

Lists of the many labeled biopesticides now available are posted on the web at https://www.vegetables.cornell.edu/ipm/diseases/biopesticides/. The lists are organized by crop and include labeled diseases that occur in the northeast. Biopesticides are defined by EPA as pesticides derived from natural materials. Some contain microorganisms. Others contain naturally occurring substances such as potassium bicarbonate, hydrogen dioxide, plant extracts, and botanical oils. Most biopesticides are approved for organic production (phosphorous acids are an exception) and most products approved for organic production are biopesticides. Generally, biopesticides have exhibited efficacy similar to conventional protectant fungicides like copper. Most notable are the numerous biopesticides labeled for bacterial diseases (see separate webpage at the website) and root diseases considering there are few conventional fungicides for these uses.

Looking for an Additional Wholesale Market this Season? Share your Surplus Products through Nourish NY

By Elizabeth Higgins, CCE ENYCHP

Governor Andrew M. Cuomo announced in March 2021 that additional $25 million has been directed to New York's network of food banks and emergency food providers to support the Nourish New York program through July 2021. Since the Governor launched Nourish NY at the height of the COVID-19 pandemic in April 2020, 21 million pounds of surplus agricultural products have been purchased from New York farmers and delivered to more than 1.3 million households in need across New York State. Purchasing and food distribution using this third round of funding - which was first announced during the Governor's 2021 State of the State Address - are currently underway. Since the launch of Nourish NY, a total of $60 million has been invested in the program.

The Nourish New York program provides funds to New York's food banks and emergency food providers, who then purchase agricultural products from New York farmers and dairy manufacturers and deliver the food to families in need.

To sell your produce through the program go to https://agriculture.ny.gov/NourishNY and sign in with a ny.gov account. This will take you to a site where you can share information about your surplus products available for purchase across New York State. All products must be grown in NY; available at competitive, wholesale pricing, and available by the truck load.

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