Cornell University
Cornell Cooperative Extension
Eastern New York Commercial Horticulture

Vegetable News

VOLUME 5, ISSUE 11
JULY 7, 2017

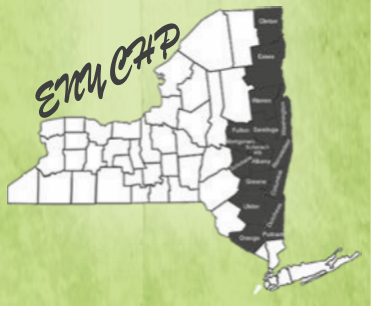
Squash Vine Borer– Time for Management!

Abby Seaman– NYS IMP Program
Edited by: Crystal Stewart–ENYCHP

Many smaller scale farms have problems with squash vine borer year after year. While cultural practices can help, especially discing in abandoned crops to prevent larvae from maturing and overwintering, a trial conducted in 2015 showed that two products allowed for organic production, a *Bt aizaiwi* product (we used Agree, Xentari is another option) and Entrust both provided reasonably good control. Agree reduced damage to an average of 12% infested plants, and Entrust to 18% compared with 60% damage in the untreated control.

Squash vine borer is not on the label for any of these products, s**o you must have a 2(ee) recommendation in your possession for a legal application**. Download the 2(ee) recommendation here: http://www.nysipm.cornell.edu/news/SVB2ee.pdf. Conventional growers have additional options, including several pyrethroid products. The trick is to time insecticide applications to prevent newly hatched larvae from boring into the stems and feeding, which causes wilting and eventual plant death for non-vining type varieties. We applied three weekly applications during the moth flight period, which starts around 1000 base 50 degree day accumulation or when chicory starts to flower. In 2016 we repeated the trial so we had pheromone traps set up to trap adult male squash vine borer. In 2016, we caught the first moths in Geneva on June 21st and spray was applied the following week.

Table of Contents



Basil Downy Mildew Showing Up in the Field

Ethan Grundberg, ENYCHP

Basil downy mildew (BDM) was already found in a propagation greenhouse earlier this season in the lower Hudson Valley, but BDM is now popping up in a number of field plantings of basil in Orange and Dutchess counties. BDM (*Peronospora belbahrii)* is a different pathogen from cucurbit downy mildew *(Pseudoperonospora cubensis)*; however, the environmental conditions that favor the spread of the two diseases are very similar and, as a result, often produce outbreaks around the same time. The first symptom of BDM is usually the development of angular yellow patches on the top side of basil leaves, followed shortly by the development of purplish gray spores on the leaf underside. After sporulation, the yellow patches turn brown and gray.

Growers have increasingly been planting the variety 'Eleonora' by Vitalis Organic Seeds due to its intermediate resistance to BDM. However, 'Eleonora' is still very susceptible and growers should still monitor their plantings of resistant varieties carefully. Purple and Thai type basils typically have better resistance than sweet Genovese types. A breeding program at Rutgers is currently working to develop and release new sweet basil varieties with higher resistance to BDM, but those varieties are yet to be released commercially.

The best cultural practices to avoid BDM are those that minimize leaf wetness and humidity levels, especially in high tunnels. In order to effectively manage BDM, fungicide applications should begin before visual symptoms develop. So, if you haven't seen signs of BDM yet, be sure to begin your preventative spray program now! Ranman (cyazofamid; FRAC code 21), Revus and Micora (mandipropamid; FRAC 40), and Quadris (azoxystrobin; FRAC 11) are all labeled for use on basil for BDM. Studies conducted on Long Island in 2013 found that Revus and Ranman were most effective at controlling BDM on both 'Italian Large Leaf' and 'Eleonora' varieites. The same study tested the efficacy of several OMRI-approved fungicides as well (Regalia, Actinovate, and Trilogy), but found them to be mostly ineffective. Some studies have found Procidic (3.5% citric acid) to be somewhat more effective for organic growers and was deemed NOP compliant by the Washington State Department of Agriculture. Double Nickel 55 (*Bacillus amyloliquefaciens*), MilStop (potassium bicarbonate), Trilogy (neem oil), and OxiDate (hydrogen dioxide) are also labeled for use on basil for suppression of BDM. Since OxiDate is a contact fungicide with no residual activity, it should only be used in conjunction with another fungicide. If you are unable to control BDM on your crop, be sure to disk in the infected plantings as soon as possible to help reduce the inoculation source for other plantings.

For more information on BDM, please refer to:
http://vegetablemdonline.ppath.cornell.edu/NewsArticles/BasilDowny.html#Report and http://livegpath.cals.cornell.edu/research/basil-downy-mildew/ .

How Copper Sprays Work and Avoiding Phytotoxicity

Teresa Rusinek, ENYCHP

Now that we've started seeing disease in veg crops, bacteria in particular, growers are considering copper sprays for management. Copper has been widely used in both conventional and organic production for some time. Copper was one of the first materials used as a plant fungicide, the other was Sulfur. Its discovery can be traced back to the famous origin of Bordeaux mixture, containing a mixture of copper sulfate ($CuSO_4$) and slaked lime, used for downy mildew control in French vineyards. Here is a quick review of how copper controls pathogens. Copper is usually applied in the "fixed form" which lowers its solubility in water. Fixed coppers include basic copper sulfate (e.g., Cuprofix Ultra Disperss), copper oxide (e.g., Nordox), copper hydroxide (e.g., Kocide, Champ), copper

continued on next page

oxychloride sulfate (e.g., COCS), and copper ions linked to fatty acids or other organic molecules (e.g., TennCop, Cueva). The spray solution is actually a suspension of copper particles, and those particles persist on plant surfaces after the spray dries. Copper ions are gradually released from these copper deposits each time the plant surface becomes wet. The gradual release of copper ions from the copper deposits provides residual protection against plant pathogens. At the same time, the slow release of copper ions from these relatively insoluble copper deposits reduces risks of phytotoxicity to plant tissues. Copper ions denature proteins, thereby destroying enzymes that are critical for cell functioning. Copper can kill pathogen cells on plant surfaces, but once a pathogen enters host tissue, it will no longer be susceptible to copper treatments. So, copper sprays act as protectant fungicide/bactericide treatments, but lack post-infection activity.

Because copper products come in different formulations and have different properties, it is important to read all the information on the labels. Besides rates, you will want to know about compatibility with other pesticides, adjuvants, and fertilizers. Many growers are tank mixing biological fungicides and plant activators with coppers, while many are compatible, some are not, so make sure to check both labels for compatibility or call the manufacture/distributer for technical assistance.

The effectiveness of copper sprays is highly correlated with the amount of elemental copper that is applied. The metallic copper content varies widely by product. Potency also varies by how the product is prepared. Finely ground copper products are more active than coarsely ground ones. Professor Tom Zitter of Cornell University suggests that for vegetable crops "begin by choosing a copper product with at least 20% or more copper as the active ingredient to insure the greatest release of copper ions".

There are several suggestions for avoiding phytotoxicity (or plant injury) with copper sprays. Limit the copper ion concentration on plant surfaces by using copper products that are relatively insoluble in water, i.e. fixed copper. Copper can accumulate to high levels on plant tissue when sprayed repeatedly to cover new growth and there is no rain. In this situation, after a rain event, a large amount of copper ions may be released leading to phytotoxicity. Solubility of fixed coppers increases under acidic conditions. Copper sprays will become more phytotoxic if they are applied in an acidic solution. Most copper products are formulated to be almost insoluble in water at pH 7.0. As the pH of water decreases the solubility of the copper fungicides increases and more copper ions are released. If the water used is too acidic (below pH 6.0-7.0, depending on the copper formulation) excessive amounts of copper ions could be produced which may cause damage to fruit and foliage. Formulations vary in solubility — hydroxides are more soluble than oxychlorides which are more soluble than tribasic copper sulfates and cuprous. Less soluble formulations are usually more persistent. Check the pH of your water source. Copper sprays generally cause more phytotoxicity when applied under slow drying conditions, such as when it's wet and cool. Always read the label instructions follow the Copper and tank mix partner labels.

For a comprehensive list of Copper Products Used for Vegetable Disease Control see:
http://vegetablemdonline.ppath.cornell.edu/NewsArticles/CopperFungicides2012.pdf
and for specific information on copper fungicides in organic disease management see:
http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Copper-Fungicides-Organic.pdf

Sources: T. A. Zitter, Cornell University Department of Plant Pathology & Plant-Microbiology and
David A. Rosenberger, Professor of Plant Pathology, Cornell University's Hudson Valley Lab

Salt Marsh Caterpillars Causing Damage in Onions and Brassicas

Ethan Grundberg–ENYCHP

Though not typically thought of as an economically important pest in the northeast, salt marsh caterpillars have been causing serious damage in hot spots to allium and brassica crops across the region this year. The caterpillars are yellowish-green with darker green bands across their abdomens and have long, light-colored hairs across their bodies. As the caterpillars grow, they can change color to a reddish brown. Their feeding damage on brassicas initially appears as window paned holes that dry out and coalesce into larger holes over time. In onions, the caterpillars only feed on the outer leaf surface and leave behind large and irregular scarred areas that are often also frequently covered with small black balls of frass (droppings).

Though few insecticides used for agricultural production are labeled for salt marsh caterpillars specifically, chemistries

continued on next page

labeled for other worm pests of brassicas and alliums, like *Bacillus thuringiensis* formulations, are effective at managing the smaller larvae.

What's Going on with Cucurbit Downey Mildew?

Charles Bornt, ENYCHP

Figure 1: Downy mildew on cucumber. Note the yellow angular spots. These will eventually turn necrotic as seen near the center of the photo.

Figure 2: Downy mildew on the underside of a cucumber leaf. Here sporulation is visible to the naked eye in the lesion near the center of the photo.

On Friday of last week we received notification of a positive confirmation of Cucurbit Downy mildew on cucumbers in Canada and from there a wave of alerts from the Cucurbit Downey Mildew Website have come in including early this week from New Jersey, Delaware, Pennsylvania , Ohio and Michigan. Then on Thursday, we received our first report from Western NY (Erie County). **So I don't think it is a question of if it will be here, but when it will get here!** Looking at the forecast reports from earlier this week and last week, it appears that we had one day that was favorable for spread from those areas, and even though the forecasting system has been pretty accurate, the crazy weather patterns over last weekend might have made it a bit of a wildcard. Remember that cucumbers tend to be the crop most affected by this particular strain. Look for yellow spots on the upper leaf sides on new growth (Figure 1) and a grey/purple fuzz on the underside of the leaf where those yellow spots are located (Figure 2) – early morning under dewy conditions is the best time to find the fuzz on the undersides. For symptoms on other cucurbits go to http://cdm.ipmpipe.org/node/22

The following information comes from this site, http://cdm.ipmpipe.org/current-forecast: *"**Overview: Epidemic spread likely in KY and the mid-Atlantic states, possible many other areas.** Transport events during midweek tend to track near the sources and to the northeast, with a few differences each day depending on position of the front. Conditions are favorable for epidemic spread in the southern Ohio Valley both days, and in the lower mid-Atlantic Wednesday and the upper mid-Atlantic Thursday. Slightly favorable weather will occur over much of the southern U.S. and parts of the North."*

HIGH Risk for cucurbits in north-central TN, central and eastern KY, southern NJ, DE, MD, northeast VA, and most of central and eastern PA. Moderate Risk in northeast OH, northwest PA, central NY, and central and southern FL. Low Risk for cucurbits in deep south and eastern TX, central and eastern MS, central and western AL, northern FL and the panhandle, central and southern GA, SC, and central and eastern NC. Minimal Risk to cucurbits elsewhere.

So what's this all mean? It means that since we are pretty much surrounded by outbreaks, especially those of our

continued on next page

counties further south in the program (Orange, Ulster, Dutchess) there is a pretty good chance that your plants have been exposed to CDM spores. ***If you haven't started your DM fungicide program, it's time to start!*** I've put together a list of fungicides labeled for CDM in Table 1. Please notice that we are no longer recommending Previcur Flex as it no longer seems to be effective on this strain of CDM. Likewise, we are no longer recommending Revus on cucumbers as it seems to have loss efficacy, but still seems to be working on pumpkins, melons and other vine crops. If you suspect CDM, Curzate or Tanos has some kickback activity under cooler conditions, but is short lived so it needs to be mixed with a protectant such as chlorothalinal and another translaminar fungicide such as Ranman, Zampro etc. Please remember to rotate your fungicides! I have given you the FRAC codes to help determine the different classes they belong too—do not apply products or pre-mix products from the same FRAC code back to back. If possible switch to a different one. Organic options for DM: There are a number of organic materials labeled for Downy mildew, but for the most part many of them have not shown very good efficacy in most trials. If applied before the disease is started copper remains one of the better choices. Other options include Double Nickel 55 Biofungicide, Regalia Biofungicide, Actinovate AG and OxiDate 2.0.

Table 1: Fungicides labeled for Downy Mildew Control in cucurbits.

Fungicide	FRAC Code	Recommended Rate/Acre	REI	PHI	Seasonal Limits	Adjuvant Recommendations
Ranman[1, 2]	21	2.75 fluid ounces	12 hours	0 days	6 sprays	Organosilicone or non-ionic surfactant
Zampro[1, 2]	40 + 45	14 fluid ounces	12 hours	0 days	3 sprays	
Revus[1,3]	40	8 fl ounces	12 hours	0 days	4 sprays	spreading/penetrating type adjuvant
Tanos[1, 2]	27 + 11	8 ounces	12 hours	3 days	4 sprays	
Zing!	22 + M	36 fluid ounces	12 hours	0 days	8 sprays	
Curzate[1,4]	27	3.2 ounces	12 hours	3 days	9 sprays	
Phostrol, ProPhyt, Fosphite or other phosphorus acid containing products	33	2.5-5.0 pints (vary depending on product used)	4 hours	0 days	7 sprays	
Organic fungicides labeled for Downy Mildew Control in cucurbits.						
Copper—Various formulations please see labels for more information						
Double Nickel 55 Biofungicide	NA	.25—3.0 lbs	4 hours	O days	NA	Use 0.25 –1.0 lb under low disease pressure and 1.0—3.0 under higher disease pressure.
Regalia Biofungicide	NA	1—4 quarts	4 hours	0 days	NA	
Serenade ASO Bacillus subtilis str QST 713)	NA	2—6 quarts	4 hours	0 days	NA	
Actinovate AG (Streptomyces lydi-cus WYEC 108)	NA	3 –12 fluid ounces	1 hour or until dry	0 days	NA	

[1] Should mix with a protectant partner such as chlorothalonil.
[2] Also labeled for Phytophthora blight.
[3] Not recommended for cucumber as it has demonstrated reduced efficacy – therefore recommended for pumpkins, squash and gourds.
[4] Has a short residual of 3 days so it needs to either be tank mixed with another systemic plus protectant or another application of a different material should be made 3 – 5 days later. Reports also indicate less effective under hot conditions (80^{O}F). Does have some curative action so best used when CDM is first detected.

con

Ladybug Variants and Imposters

Amy Ivy, ENYCHP

While checking peppers for aphids last week I came across a yellow spotted bug. For a split second, spotted cucumber beetle came to mind, but this guy was cruising around the newest growth, obviously hunting, and it was on high tunnel peppers where aphids are likely to be found. Whenever I try to identify a bug, the first question I always ask is, where was it found? This was clearly some kind of ladybug, or more accurately lady beetle. There are over 12 species of ladybugs in New York in a range of colors and shapes, so I thought a review of some of these helpful friends might be useful.

14 Spotted Ladybug, Yellow form on peppers.

Photo: ADI

It can be tricky to recognize any of the many beneficial insects because they're usually found at the scene of the crime since that's where their food is, so they are often mistaken as the pest. You notice curled or damaged leaves and it's easy to blame the first bug you find.

According to the website www.bugguide.net the one I found is called a Fourteen-spotted Lady Beetle. The spots merge together in places, so don't bother trying to find all 14 spots. It's the pattern of black spots and color variation of the background that are the key. This species comes in shades of orange as well, but the black spots will have the same pattern.

Pink Spotted Lady Beetle (Univ. Kentucky Extension)

Another species that I see several times each year is the Pink-spotted Lady Beetle. This one has a different shape from most other ladybugs but I assure you, it is a friend. It is also helpful to be able to recognize the larvae of ladybugs since they don't look anything like the adults and are often mistaken for pests. When in doubt, you know who to call – any of us on the team!

Ladybug Larva (Univ. Kentucky Extension)

Ladybug Look– Alikes– NOT Beneficial:

Spotted cucumber beetle has black head, yellow section, then black spots in even rows. (U Minnesota Extension)

Mexican bean beetle resembles a ladybug but feeds only on legumes and its spots are arranged in even rows. (BugGuide.net)

Insecticide Treatment Options for Onion Thrips Management in Onion in 2017

Ashley Leach, Christy Hoepting, and Brian Nault, Cornell Veg Team

Onion thrips (*Thrips tabaci*) are beginning to colonize onion fields in New York, and many growers have begun their onion thrips management programs for 2017. The following flowchart (fig. 1) provides several different insecticide sequence options for controlling onion thrips this season.

Start with Movento

We suggest beginning onion thrips management with two sequential applications of Movento® (spirotetramat) at 5 fl oz per acre. **Movento® is unparalleled early in the season at controlling thrips because it kills larvae and eggs and as a systemic insecticide can often offer weeks of control**. Because Movento is not nearly as effective on larger onion plants that are bulbing (e.g., 1-2 inch bulbs), make sure that Movento is applied before this time. After Movento® applications are made, growers should consider following 'Option A' or 'Option B' for their remaining insecticide applications (fig. 1).

Option A – Minecto Pro for High Pressure

'Option A' features the recently registered Syngenta product, Minecto® Pro, which is a pre-mix of Agri-mek® SC (abamectin) and Exirel® (cyantraniliprole). While Minecto® Pro may be two to three times the price of Agri-mek®, Minecto Pro® can offer superior control of thrips. In a 2016 insecticide evaluation trial in Elba, NY, Minecto® Pro performed equivalently to Radiant® SC at 10 fl oz per acre (spinetoram) and reduced thrips by 80% when compared to the untreated control. Therefore, Minecto® Pro at 7-10 fl oz per acre can be a great option if onion thrips populations rebound with a vengeance after Movento® has run out of gas (fig. 1). However, **Minecto® Pro** should be applied early to mid-season because it **has a 30-day pre-harvest interval, just like Agri-Mek® SC**. Following the 'Option A' track, growers should use either two applications of Radiant® or a tank mix of Lannate® LV (methomyl) and Warrior® II with Zeon technology (lambda -cyhalothrin), depending on the onion thrips density. If densities remain high (above 2 thrips per leaf) after applications of Minecto® Pro, Radiant® should be applied at 8-10 fl oz per acre. If densities are low (1-2 thrips per leaf), growers may consider applying a tank mix of Lannate® LV and Warrior® II with Zeon technology (48 fl oz per acre and 1.9 fl oz per acre, respectively).

Option B – Agri-Mek for Low Pressure

'Option B' includes insecticide sequences that have been available for the past few years and have proven effective at controlling thrips. This option may be less expensive than 'Option A' and might be selected if onion thrips densities remain relatively low after the two applications of Movento®. In 'Option B', we suggest making two sequential applications of Agri-mek® SC at 3.5 fl. oz per acre after applying Movento® (fig. 1) (See 'Other variations' below). Some growers have experienced reduced performance of Agri-mek® SC in the past two years, thus **we recommend tank mixing Warrior® II with Zeon technology with Agri-mek® SC, but only if needed.** After two applications of Agri-mek® SC, either Radiant® SC or Exirel® should be applied depending on the onion thrips density. Exirel® at 13.5-20.5 fl oz per acre is recommended when onion thrips densities are 1-2 thrips per leaf. In insecticide efficacy trials conducted in 2016, two sequential applications of Exirel® reduced onion thrips densities of 4 thrips per leaf, but was not successful at higher densities. Thus, we still recommend Radiant® at 8-10 fl oz per acre when onion thrips densities are greater than 2 per leaf. If additional insecticide applications are needed, a tank mix of Lannate (48 fl oz per acre) and Warrior® II with Zeon technology (1.9 fl oz per acre) can be co-applied to prolong thrips control until harvest.

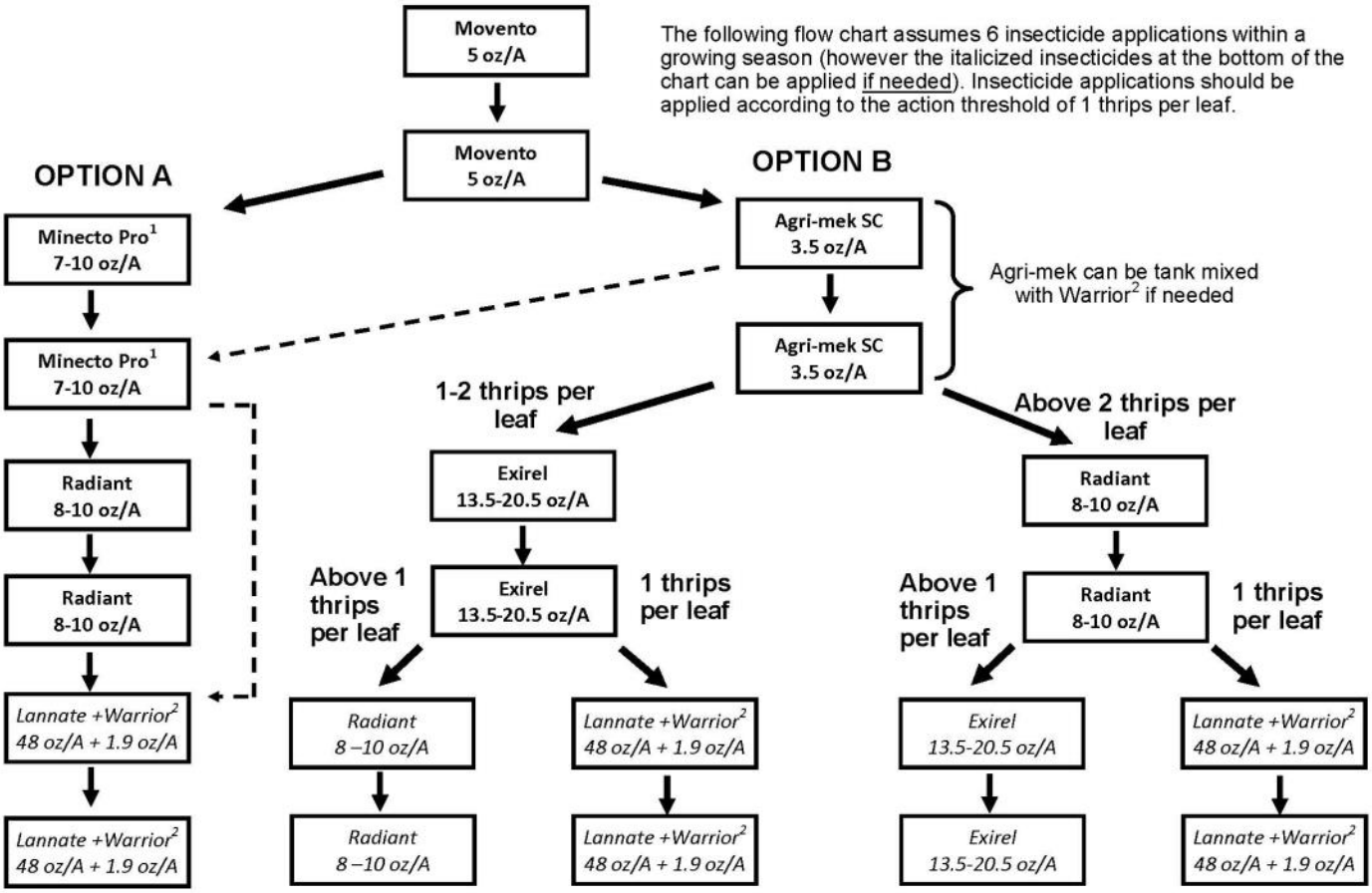
Other variations

The flowchart below is meant to aid growers in controlling onion thrips in 2017; however, it is not an exhaustive list of insecticide sequence options to control thrips. There are other sequences that are not listed and may be equally effective at controlling onion thrips. For example, if following 'Option B' and onion thrips densities increase after one application of Agri-mek®, growers may consider moving to the 'Option A' track and make an application of Minecto® Pro to decrease onion thrips densities (fig. 1, dotted line).

No more than two applications of abamectin per season

Whether you stick with 'Option A' or 'Option B' or end up jumping tracks, no more than two (sequential) applications of Agri-Mek®, either alone or as part of Minecto® Pro, may be made per season. Similarly, no more than two (sequential) applications of Exirel®, either alone or as a component of Minecto® Pro, may be made per season. For example, if you use Agri-Mek® followed by Minecto® Pro, you may not apply a second Minecto® Pro or a second Agri-Mek®. Instead, you may choose from either i) Exirel®, ii) Radiant®, or iii) Lannate® + Warrior® II with Zeon technology.

Guidelines for 2017 onion thrips management



1. Agri-mek and Exirel should not be used in sequence with Minecto Pro
2. Warrior II w/ Zeon technology

What is Your Farm's Strategy?

Elizabeth Higgins– ENYCHP

How do you make decisions about what to grow, what services to offer your customers, or what new markets to enter? Do you have a strategy?

A farm business strategy matches the farm's capabilities with the opportunities in the marketplace. It determines how a farm will compete with other farms for business and should inform the decisions that you make for investments and adding new products and services. Most farm business strategies will fall into one of these broad categories:

- **Cost differentiated/cost leadership** – Your farm provides a high-quality product or services (compared to competitors) at a low or competitive price. Most farms fall in this category. Farms in this category are successful by carefully managing costs and making very strategic decisions about what products and services they add. This strategy recognizes that what you produce on your farm is produced by many other farms, and how you distinguish your farm to a buyer is the quality, and service you offer at a reasonable price point – given what you are offering.
- **Product differentiated** – You offer unique products or services that appeal to your customers, and that they cannot get from other farms. These farms can often charge higher costs but they need to be able to keep customers who perceive that they offer a different product. Successful farms in this category take advantage of some barrier to entry that helps to keep competitors out. Examples are offering Halal or kosher certified local meat, raw milk, or organic production of crops where there are not a lot of organic producers. The various certification and legal barriers help to reduce competition to those farms who can meet the requirements.

continued on next page

Knowing your strategy can help you make better management decisions.

- **Who are our most important customers, and how can we be competitive and deliver value to them?** Even within price differentiated farms some farms excel in quality of their produce, some excel in the service they provide and some excel in price. What do your customers value?
- **What substitute products exist in the marketplace, and how do they differ from our product in terms of features, price, cost, and quality?** For product differentiated farms, this will help you see when you may need to switch your overall strategy to being cost differentiated. You see this in organic production, where as more and more growers become organic certified, their products are less differentiated to consumers.
- **What is our farm's most critical capability?** Is it reputation/brand, production capacity, or marketing? How can we leverage it for new strategic initiatives? Does your capacity match the needs of your market?

Ag. Business Tuesdays: Are you a farmer in Eastern New York with a question about the management side of your farm business? The Cornell Cooperative Extension Eastern NY Commercial Horticulture Team, in collaboration with CCE County offices, is offering free farm business technical assistance appointments this summer on Tuesdays at various locations in our service region. Please Contact Liz Higgins to schedule an appointment, emh56@cornell.edu or 518-949-3772

Clinton County, July 11th: 9-5
Warren County, July 25th: 9-4

Sweet Corn Trap Catches 6/27-7/5

County	Corn Earworm	European Corn Borer-Z (Iowa)	European Corn Borer-E (New York)	Fall Armyworm	Western Bean Cutworm	Year to Date Growing Degree Days
Orange	2	0	0	0	1	886.0
S. Ulster	0	0	0	0	0	789.5
N. Ulster	1	0	0	na	na	789.5
N. Dutchess	1	0	2	0	0	839.1
Columbia	na	na	na	na	na	842.2
Greene	na	na	na	na	na	902.0
Albany	1	0	0	0	0	774.6
Schoharie	0	0	0	0	1	774.6
Fulton	na	na	na	na	na	846.1
Saratoga	0	0	0	0	0	846.1
S. Washington	1	0	0	0	0	773.5
N. Rensselaer	0	0	0	0	0	773.5
S. Clinton	0	0	0	0	0	719.8
C. Clinton	0	0	0	1	0	714.0

Irrigation Pipe for Sale

5" Racebuilt 30 foot total 2,040'
5" Surerain 20 foot total 1,220'
4"Surerain 20 foot toatal 3,060'
4" Miller Posten total 500"
4" Wade Rain 20 foot total 1,160"
4" Rain Way total 260'
3" Sure Rain total 1,280'
98 Rainbird Sprinklers Primarily #30 Some #20

Call John Weed 845-464-6020
845-236-0237

High Tunnel Field Meeting

Join us for a discussion of ongoing high tunnel fertility management for summer tomato crops, high tunnel soil health, as well as other summer high tunnel crop options including cucumbers and basil.

In addition there will be an update on leek moth in allium crops, a discussion of downy mildew in basil, and a demonstration of an in-row flame weeder.

Speakers include:
Judson Reid, CVP
Andy Fellenz, NOFA-NY
Amy Ivy, ENYCHP

Light refreshments will be provided.
Pre-registration is encouraged.

Date: Wednesday July 12

Time: 5:00pm-7:00pm

Location: Slack Hollow Farm
177 Gilchrist Road
Argyle, NY

Cost: $15/ person
$25/ farm
(2 or more people)

Registration online at:
https://www.nofany.org/events-news/events/2017-on-farm-field-days

Or call NOFA at (585) 271-1979

Cornell University
Cooperative Extension
Eastern New York Commercial Horticulture

NOFA-NY
NORTHEAST ORGANIC FARMING ASSOCIATION OF NEW YORK

NY farm viability INSTITUTE

This event is a collaboration of Cornell Cooperative Extension and NOFA-NY and part of a project funded by the Farm Viability Institute, "Best Management Practices for Long Term Profitable High Tunnel Soil Fertility and Health"

Vegetable Specialists

Chuck Bornt
Cell: 518-859-6213
Email: cdb13@cornell.edu

Amy Ivy
Phone: 518-561-7450
Email: adi2@cornell.edu

Teresa Rusinek
Phone: 845-340-3990 x315
Email: tr28@cornell.edu

Crystal Stewart
Cell: 518-775-0018
Email: cls263@cornell.edu

Maire Ullrich
Phone: 845-344-1234
Email: mru2@cornell.edu

Ethan Grundberg
Phone: 617-455-1893
Email: eg572@cornell.edu

Business Specialist

Liz Higgins
Cell:518-949-3722
Email:emh56@cornell.edu

Food Safety Specialist

Erik Schellenberg
Phone: 845-344-1234
Email: jk2642@cornell.edu

Find us on Facebook