A lot of growers have been asking how things look out there this year. I have to say that in the last two weeks, a lot of planting has gone on and things are looking pretty good. Most of the sweet corn and pumpkins have made it into the ground and transplanting of summer crops like tomatoes, peppers and eggplant has just about wrapped up with the exception of some late tomatoes. Tomato staking and tying is underway and in some locations, growers are on their second string. If you’ve never staked and tied your tomatoes, it is definitely worth it in my opinion. If you need someone to show you how to do it, please feel free to give one of us a call and we would be happy to give you a demonstration. Green and yellow summer squash has been picked now for a couple weeks in several locations with a lot more to come on line this weekend. Cucumbers have also found their way to the market in the last week or so. Growers also started picking peas last week. Early sweet corn under plastic and/or rowcovers is tasseling and in several locations starting to silk and shed pollen. I have seen a lot of sub-standard stands of early sweet corn. Later plantings are looking good. Early potatoes that I have seen were in full blossom and looking good. No late blight has been reported locally and, like you, I hope it stays that way. -CDB

Adult blueberry maggot emergence has begun and will continue through the summer. After emergence, female flies require 7 to 10 days to mature and mate, at which point they will begin laying eggs. Eggs are oviposited under the skin of ripening berries, one egg per fruit. Eggs hatch in about five days and the maggot begins feeding, completing its development within the same berry. At that point the larva drops to the ground, burrows into the soil and pupates. Most of the pupae will emerge the following season, although some may take several years before the pupae emerges.

Monitoring for adult blueberry maggot flies is not difficult. Yellow sticky boards baited with ammonium acetate do a good job attracting newly emerged females that are actively feeding right before egg laying. The traps are hung in upper branches of a blueberry bush in an outside row on the south facing side of the bushes. Hang traps with the yellow colored side down in a V-orientation. If you have never had a blueberry maggot problem, traps in the perimeter row will be more helpful as these flies will immigrate into the field from hedgerows. However, if you are monitoring known populations, put the trap in the area of the field that had the worst damage last year. Traps optimally should be checked several times a week until the first fly is caught, at which time you should begin to take action.
Cucurbit downy mildew update

More good news – as of today, we have not gotten any reports of Cucurbit Downy Mildew in the region or state. The bad news - on June 20, we received the first reports of CDM in commercial fields of cucumbers from North Carolina (Sampson and Hertford Counties, NC). Earlier in April, there was a CDM confirmation in South Carolina on zucchini and yellow squash. However, the forecast and outlooks report that transportation of spores to our region is unlikely. We will be watching closely to reports out of Michigan and Western NY and will let you know what’s going on. Traditionally our CDM rides storms coming up the coast from the south. But, the last 4 years has seen most of our CDM infections coming out of Michigan and Western NY. That is because there has been a new strain of CDM coming from large cucumber greenhouses in Canada and if they have infection and vents their greenhouses, those spores can ride a storm front and get deposited other places. This new strain is particularly destructive on cucumbers. Stay tuned as reports will be brought to you weekly. Also, it is worth mentioning that the Cucurbit Downy Mildew Forecasting program that we use allows anyone to receive announcements via email or text on cell phones if an outbreak is reported within however many miles you choose (I have mine set for 200 mile radius). It is very simple to set up this system. All you need is to create a user name and password. Then the system will allow you to load a location and what radius you would like and your contact information. The best thing is that it is FREE! To create your own alert, go to http://cdm.ipmpipe.org/ and look for “CDM Alert System” on the left hand side of the page (just below the “Home” link). Then follow the directions on the screen to create your login and password and then finally your location, how you want to receive the alert and what the radius you would like and hit the submit button. –CDB

Cucurbits: With last week’s cooler and slightly wetter conditions, I didn’t think it would be long before we found our first Angular Leaf Spot (ALS) lesions of the season on cucumbers. ALS is a bacteria that can survive for 2 years in soil or debris from diseased plants. Like many bacteria, it requires free moisture in the form of rainfall or relative humidity greater than 95 percent for several days for infection and disease development to occur. This bacterial disease can occur on most cucurbits, including cucumber, muskmelon, pumpkin, and winter squash. Leaf spots are variable in size but veins limit the expansion of leaf spots which gives it an angular look. Spots start as water soaked areas that turn brown/tan and eventually almost white. The lesions then usually dry up and tear away from the healthy tissue, producing irregular holes in the affected leaves. ALS can also infect fruit. If our weather turns warm and dry, the spread will probably be slowed down, but if you are overhead irrigating, this can help keep the disease moving. Dry weather for 2 weeks can arrest the disease. Because this is a disease, copper compounds are really our fungicide of choice. Adding mancozeb to copper applications can improve control because the mancozeb allows more copper to be available compared to using it alone. Champ 2F and Champ Dry Prill, Champion WP, Kocide 2000 and 3000, Nu-Cop 50 DF and HB, Cuprofix Disperse DF are just a few of the coppers labeled. Make sure they are labeled on the crop you are treating. Nu-Cop 50 DF, Champion WP and Kocide 2000 and 3000 are also OMRI approved coppers. -CBD

Angular leaf spot on cucurbits

Image: Angular leaf spot on entire leaf and then close up. Irregular, angular holes are typical.
New fungicides and label changes approved in New York

There are several new fungicide uses for vegetable crops since the 2010 season. **Presidio** is a new fungicide with targeted activity for oomycete pathogens. Labeled vegetable crops and diseases include downy mildew and Phytophthora blight in all cucurbits; late blight, buckeye fruit rot, and Phytophthora blight in fruiting vegetables (i.e. pepper, eggplant, tomato); and downy mildew and white rust in leafy vegetables. For managing diseases in cucurbits, **Presidio has an advantage over Curzate and Premicur Flex of also being effective for Phytophthora blight.** Both diseases are often of concern for most cucumber growers. Presidio was registered in the USA in 2008, which is important to know when managing a disease like cucumber downy mildew because the causal pathogen is prone to developing resistance to fungicides and it moves long distances during each growing season. Thus the pathogen occurring in NY in 2011 has been subjected to selection pressure for developing resistance in other states for three years. Presidio has a long rotational interval of 18 months for non-labeled crops, which can be a constraint on production. All cucurbits, fruiting vegetables, tuberous and corn vegetables (except potato), and leafy vegetables are now labeled; carrot, sugar beet, potato and rotational wheat will be labeled soon; and rotational field corn is expected in 2012.

**Manzate Pro-Stick** fungicide is now labeled for use on lettuce (head & leaf), broccoli, cabbage and peppers. Cucurbits are among the new uses on supplemental labels for Penncozeb 75DF and 4FL. Dithane also now has a supplemental label that includes pumpkin, winter squash and gourd.

Most recent crop additions to the **Quintec** label are for powdery mildew diseases that do not occur in NY; however, these are important because they increase the options of what can be planted within 12 months of the last application. These include pepper, strawberry, artichoke, and lettuce (head & leaf). -Meg McGrath, Long Island Fruit and Vegetable Update, No. 14, June 16, 2011

**Sweet Corn:** Some early plastic and rowcover sweet corn is starting to show silk and pollen shed. Crop stands have been all over the place this season. Now is a good time to note any particular early varieties that did not perform very well due to our crazy spring weather patterns. ECB numbers are down from last week, but are still sporadic. Lots of live larvae can be found at all different stages this week. Those fields I looked at recently that applied an insecticide when tassels first emerged and then several days later when the rest of the tassels emerged had a few larvae, but not as many as those that had done nothing. My concern is that they are moving into the stalk and tassel stalk which means they are going to be hard to get at with our insecticides. Warrior has been working well, but now that ECB is moving into the stalk, it might be time to consider one of the newer products called Coragen. This material recently was labeled in NY and has been reported to work well. The trans-laminar property or the ability of the product to move into the leaf tissues and it’s long residual (2 weeks) is why it might be time to add it to the toolbox. It is labeled at 3.5 – 5.0 fl ozs/acre and they recommend using a penetrating surfactant such as LI 700 or Dynamic to improve plant uptake.

From Abby Seaman, NYS Vegetable IPM Specialist: “It’s time to start using scouting and thresholds in fields coming into tassel now and the next few weeks. Scout as soon as the tassel is emerged enough that you can examine it for frass and newly hatched larvae. The threshold at tassel emergence is 15% infested plants, and scouting at this stage is pretty quick and easy, especially for fields that have not yet been sprayed, as any damage found probably indicates a live larva. In fields that are over threshold, wait until 50% of the tassels have emerged before spraying. The trick is to kill larvae while they are exposed in the opening tassel but before they have a chance to bore into the plant, where they will again be protected from insecticide applications. Very uneven fields may need an additional application after all the tassels have emerged. Keep in mind that this may be less than 7 days from the first application.”

Believe it or not, there are already reports of Corn Earworm moths being caught in Long Island and even in Massachusetts! Our CEW traps will be going out this week along with Fall Armyworm and a new pest called Western Bean Cutworm. We will be posting more information about these pests in the next couple issues of the Weekly Update.
Potato update

Colorado Potato Beetle larvae are widespread in the area. There are several good materials to choose from. Agri Mek (8-16 ounces/acre), Coragen (3.5 – 5.0 fl oz/acre), Voliam Express (pre-mix of Coragen and Warrior at 6-9 fl oz/acre), Radiant (6-8 ounces/acre). If you did not use an imidacloprid material (Admire Pro, Advise, Gaucho, Cruiser, Widow etc.) at planting in the furrow you can also use Provado (3.75 fl oz/ acre) or Assail (1.5 – 4.0 ounces/acre). If you are going to use Coragen or Altacor (same active ingredient), the label is specific in stating you cannot make more than two applications of these products to the same generation of Potato Beetle or within a 30 day period before switching to a different product with a different mode of action. For organic control, Entrust (1-2 oz/acre) may be allowed (depending on your certifying agency). Please note, last week we accidentally included Avaunt in our list of organic controls. This is not an option—Entrust (spinosad) is by far the best organic option, but manage for resistance (CLS)

Also, there are reports of leafhoppers in Long Island and the Western part of the state so be on the lookout. You can use a sweep net for adults or check the undersides of the leaves for the brightly green colored nymphs. Leafhoppers can be very destructive, especially on early red skinned varieties and russet varieties. Several varieties such as Katahdin are fairly tolerant of leafhopper damage. Thresholds are 1 adult leafhopper per sweep or more then 15 nymphs per 50 leaves. Leafhopper damage usually appears as marginal burning on the leaves or almost like tipburn.

Keep an eye on your potatoes for European Cornborer damage which usually appears as a branch that is wilted. Upon inspection, you can usually find frass (sawdust looking material) and an entry hole where the larvae entered. Keep an eye on the ECB moth counts in the sweet corn section. When counts are high, your potatoes are at a greater chance then if we are between flights. Reports from Maine and some other areas say they are having good results with Coragen (3.5 – 5 fl ozs/acre) for ECB control.

Finally, now is a good time to start applying a preventative fungicide for late blight if you aren’t already. Bravo or other generic chlorothalonil (0.75 - 1.5 pints per acre) or Dithane (mancozeb, 1-2 lbs per acre) would be adequate.

-CDB

Cole crops update

Cole Crops: Cole crops have enjoyed the last week of cooler temperatures. We continue to find Diamondback and Imported Cabbageworm larvae feeding on the newer growth in cabbage and collards. Continue to scout and apply insecticides when necessary. Take a look at last weeks Weekly for more information on insecticide options. Please note that one option that is available is not listed in the table from last week:

Synapse, active ingredient flubendiamide, is labeled for control of lepidopteran insects. The rate is 2 oz/A, not to exceed 4 oz per season. PHI is one day. Also, Baythroid has been updated to Baythroid XL. The rates are the same as those noted in the table.

Garlic scape removal

Garlic scapes are already curling in most places, leading to the age-old question: to remove, or not to remove? The quick answer: remove. According to the available research, removing scapes can lead to up to a 15% yield increase. The increase in yield in this study was greater on a site with low organic matter than on a site with high organic matter. The high organic matter site only saw a 5% increase due to scape removal. However, there is more to the story than just yield increases. We must also consider bulb quality as well as the price that an entrepreneurial garlic grower can get by selling his or her scapes as a delicious early summer vegetable.

Dry matter increases from scape removal: on average, when scapes are removed, garlic bulbs will be larger. They will also contain more dry matter (as opposed to just getting larger due to water uptake). The less stressed garlic is, the less effect scape removal seems to have. However, even under ideal conditions, scape removal leads to slightly larger bulbs.

Selling your scapes: Prices for scapes vary widely. Often they are sold by the bunch not the pound. Bunches may be a medium handful and could retail for $2 to $4 each or more, depending on the market. Harvest scapes when tender—usually one loop will be okay, but woodiness varies by variety. Cut off the bottoms if they are too woody to snap. Scapes are often eaten like asparagus, and should have a similar texture. –CLS

WEEKLY UPDATE
Small Fruit Update

(Continued from page 1)

Dr. Rufus Isaccs, from Michigan State University, has this to say about blueberry maggot management strategy:

“Control of blueberry maggot has been achieved for many years using broad spectrum insecticides. These kill the adult fly on contact and prevent the insect surviving to the point of being able to lay eggs into the fruit. The organophosphates Guthion, Malathion and Imidan are highly active on blueberry maggot with the latter two products having shorter pre-harvest intervals and potential for use closer to harvest. Carbamates, such as Sevin, and the pyrethroids such as Danitol are also active on adult fruit flies. As a general rule, our trials in fruit crops against maggot flies have shown lower activity from the pyrethroid chemical class than from the organophosphates.

There are several newer insecticide products that include blueberry maggot on their labels. These include the neonicotinoids Provado and Assail that are also active on Japanese beetle and aphids. Small plot trials of these products have shown that they protect fruit from maggot infestation, and in large-scale trials over four years in Michigan blueberry farms, we found no blueberry maggot infestation in fields treated with Provado during July and early August. The spinosyn-containing compounds Delegate, SpinTor (non-organic formulation) and Entrust (organic formulation) are highly active on blueberry maggot adults when ingested. In field trials with high pest pressure and two week application intervals their performance has been rated as good (see table). Performance would be expected to be higher in fields with lower pressure and with less time between applications.

GF-120 NF Fruit Fly Bait (spinosad) is registered for control of the blueberry maggot and is listed by the Organic Materials Review Institute (OMRI) for use in organic production. Because the primary route of entry into the insect is through ingestion, applying this product during the fruit fly pre-oviposition period is important for optimal performance. GF120 must be applied with specialized equipment, and is designed for low-volume application by air. Field efficacy data is encouraging, but it is sensitive to wash-off. We have limited experience with this novel formulation in large-scale trials in Michigan.

The use of Surround WP for fruit fly control is based on creating a protective barrier between the plant and the pest that 1) reduces host recognition of the pest, and 2) prevents adult oviposition (i.e. egg laying). Because it is not toxic to adult flies like conventional insecticides, complete coverage of the plant is critical. Multiple applications are typically needed to attain initial coverage; further sprays may be necessary to respond to wash-off from rain or excessive wind. Field trials indicate that when adequate coverage is maintained that excellent fruit protection can be achieved, although the white residue makes this not suitable for fruit destined for the fresh market.”

See Table 1 below for effectiveness ratings for these pest control products. Please note that this information is from Michigan, and not all of the pesticides listed have DEC approval for use in NYS. Check the Cornell Pest Management guidelines before applying pesticides. For more information about the management of blueberry maggot, check out http://www.blueberries.msu.edu/ and http://www.fruit.cornell.edu/berry/index.htm.

I have a few sticky cards out in blueberry plantings and will report if I see these pests, but their distribution is extremely localized, so it would be most helpful if you place these easy monitoring devices in your own field. Check most ag supply companies including Gemplers (http://www.gemplers.com/) for the sticky traps. -LGM

<table>
<thead>
<tr>
<th>Compound trade name</th>
<th>Chemical class</th>
<th>Optimal spray timing for blueberry maggot</th>
<th>Residual activity</th>
<th>Effectiveness rating**</th>
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<tr>
<td>Guthion, Imidan</td>
<td>Organophosphates</td>
<td>Within 7 days of the first fly being captured</td>
<td>14+ days</td>
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<tr>
<td>Malathion</td>
<td>Organophosphates</td>
<td>Within 7 days of the first fly being captured</td>
<td>5-7 days</td>
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<td>Lannate, Sevin</td>
<td>Carbamates</td>
<td>Within 7 days of the first fly being captured</td>
<td>5-7 days</td>
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<tr>
<td>Asana, Danitol, Mustard Max</td>
<td>Pyrethroid</td>
<td>Within 7 days of the first fly being captured</td>
<td>7-10 days</td>
<td>G</td>
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<tr>
<td>Delegate, Entrust*, SpinTor, GF120NF*</td>
<td>Spinosyns</td>
<td>Immediately after the first fly has been captured</td>
<td>7-10 days</td>
<td>F-G</td>
</tr>
<tr>
<td>Provado, Assail</td>
<td>Neonicotinoid</td>
<td>Within 7 days of the first fly being captured</td>
<td>10-14 days</td>
<td>G-E</td>
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<tr>
<td>Surround WP*</td>
<td>Particle Film Protectant</td>
<td>Multiple applications before fly emergence</td>
<td>As long as thorough coverage of the canopy is maintained</td>
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* OMRI approved for organic production
## Weekly and Seasonal Weather Information

<table>
<thead>
<tr>
<th>Site</th>
<th>Growing Degree Information Base 50°F</th>
<th>Rainfall Accumulations</th>
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<td>Weekly Total 6/13—6/19/11</td>
<td>2010 Total 4/1—6/19/2010</td>
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<td></td>
<td>Season Total 4/1 - 6/19/11</td>
<td>2011 Weekly Rainfall 6/13—6/19 (inches)</td>
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<td>2011 Season Rainfall 4/1—6/19 (inches)</td>
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<td>2010 Total Rainfall 4/1—6/19 (inches)</td>
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<td>Guilderland</td>
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<td>Granville</td>
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<tr>
<td>Valatie</td>
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<td>758.4</td>
</tr>
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</table>

NA1—The Granville weather station was established this year (2011) so there will be no 2010 data reported as we have no records.

2 The Hudson site has been removed from the NEWA network. No more data will be reported for this site.

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### Summer Meeting Schedule

**Summer Update with Dr. Tom Zitter**

**Wednesday, July 13th, two locations:**
Join Dr. Zitter and learn about disease trends so far this summer, and hear what the best options are for control. Feel free to bring questions and even samples—just make sure they are in sealed Zip-Loc bags!

**10 a.m.-noon: Montgomery County** - 463 Argersinger Road, Fultonville, NY 12072
Tour Amos Yoder’s diversified vegetable farm with Tom and the team.

2nd location in central Capital District area to be determined, but meeting will be in the early evening.

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**Websites of Interest**

- Diagnose pest and disease problems using color pictures: [http://vegetablemdonline.ppath.cornell.edu/](http://vegetablemdonline.ppath.cornell.edu/)
- Cornell Guidelines for fruit and vegetables: [http://www.nysaes.cornell.edu/recommends/](http://www.nysaes.cornell.edu/recommends/)
- USDA Fruit and Vegetable Market News: [www.marketnews.usda.gov/portal/fv](http://www.marketnews.usda.gov/portal/fv)

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