Crop Conditions

December 2015 was almost 10 degrees warmer than 2014 (Table 1). This meant both good news and bad for vegetable growers. The good news was that late-planted cover crops had more time to produce more ground cover, and winter-killed cover crops like oats were still alive and protecting the soil. We had several 100 more growing degree days this year than last (Table 1), and combined with fairly dry weather, this was an excellent growing season with fewer plant diseases or losses due to flooding. Even while high tunnels and greenhouses were planted with greens, farmers continued to pick crops like lettuce and kale out of the field well into December.

Now for the bad news. As a general trend, we will be seeing increased frequency and size of storms in New England (Figure 1). Several storms bringing large amounts of rainfall in a short period of time occurred this season causing flare-ups of diseases like *Phytophthora capsici*. We will also continue to see warmer temperatures earlier in the spring and later in the fall, though sprinkled with enough hard frosts to make season extension a challenge for growers. Some growers planted garlic what turned out to be too early this season. We traditionally plant garlic 2-3 weeks after the first frost but before the ground freezes. That time is normally late October or early November in Massachusetts. We plant at this time because garlic needs 40 days at or below 40°F in order to differentiate their bulbs and make nice big heads. However, this year, temperatures remained warm after the first frost, and some garlic began to sprout. Garlic roots will grow as long as the ground is not frozen and the tops will grow when the temperature is above 40°F (which happened a lot this December). Garlic can withstand winter lows of minus 30°F, however if temperatures remain warm in the fall as they did this year, too much tender top growth happens making the plants more susceptible to freezing injury. Ideal conditions are to have garlic roots estab-

Table 1. Average December temperatures and total annual growing degree days 2014 and 2015. Many crops have a base growing temperature of 40°F, so that is the base temperature used to calculate GDD in the table below. Source: [http://newa.cornell.edu/index.php?page=all-weather-data](http://newa.cornell.edu/index.php?page=all-weather-data)

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<thead>
<tr>
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<tbody>
<tr>
<td>Pittsfield, MA</td>
<td>40.8</td>
<td>30.6</td>
<td>10.2</td>
<td>4424.5</td>
<td>3988</td>
<td>436.5</td>
</tr>
<tr>
<td>S. Deerfield, MA</td>
<td>40.6</td>
<td>32.9</td>
<td>7.7</td>
<td>4989.7</td>
<td>4676.1</td>
<td>313.6</td>
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<tr>
<td>Northboro, MA</td>
<td>44.4</td>
<td>33.5</td>
<td>10.9</td>
<td>5221.1</td>
<td>4612</td>
<td>609.1</td>
</tr>
<tr>
<td>Dracut, MA</td>
<td>42</td>
<td>34</td>
<td>8</td>
<td>5121.8</td>
<td>4754.1</td>
<td>367.7</td>
</tr>
<tr>
<td>Boston, MA</td>
<td>45.3</td>
<td>36.9</td>
<td>8.4</td>
<td>5450.4</td>
<td>4998.1</td>
<td>452.3</td>
</tr>
<tr>
<td>Sharon, MA</td>
<td>44.4</td>
<td>36.1</td>
<td>8.3</td>
<td>5391.9</td>
<td>4999.7</td>
<td>392.2</td>
</tr>
</tbody>
</table>
lish in the fall, but not have any shoot growth until the spring. Other bad news has to do with pests. We had several severe outbreaks of cabbage aphid this year early in the summer which is unusual for this pest that typically migrates north each winter. However, as more farmers produce winter brassicas in high tunnels, these aphids have an overwintering host and can continue to cause infestations year round. In warmer temperatures female aphids give birth to live nymphs which take 7-10 days to become adults, while in cold temperatures (below 40°F), females lay eggs that overwinter in plant debris. This year, farmers planted their tunnels while host crops were still in the field with temperatures warm enough for the cabbage aphid to survive and produce more nymphs. Be sure to scout tunnels this winter for cabbage aphid on brassica crops and keep an eye out for them early in the field next year too! Research from Cornell has shown that releasing lady beetles under row covers in tunnels can significantly and rapidly reduce aphid populations.

Organic Nutrition Project for Vegetable Transplants and Herbs

There are many OMRI listed growing media and fertilizers commercially available, however there has been a lack of information for growing organic vegetable transplants and herbs in commercial greenhouses. For the past several years Dr. Douglas Cox of UMass Extension and Stockbridge School of Agriculture has evaluated the use of organic fertilizers in ornamental crops, and based on his results, he recommends Nature’s Source 3-1-1 liquid fertilizer and Sustane 8-4-4 granular slow release fertilizer. During the 2015 spring growing season, the UMass Extension Greenhouse Crops and Floriculture team invited growers to trial and evaluate Nature’s Source fertilizer on a greenhouse crop. Nature’s Source fertilizer and technical assistance was provided. Three growers participated. Here is a summary of the project at each greenhouse followed by tips for using organic fertilizers in transplant production from Doug Cox.

Grower one

Grower one is a retail grower that currently grows organic vegetable transplants certified by Bay State organic certifiers. They use primarily fish emulsion for fertility and are not satisfied with the quality of their plants. They decided to try Nature’s Source and Sustane plus two other slow release granular fertilizers; Plant Tone (5-3-3) and Pro Gro (5-3-4). All fertilizers were OMRI approved. They also decided to try four different substrates used for organic production: Fafard organic mix, Espoma organic soil, Moo Doo organic potting soil, and Ideal compost. The trial consisted of four sets of media/fertilizer combinations with eight combinations for each media type. Sustane, Plant Tone and Pro Gro slow release granular fertilizers were incorporated in the media using a small portable cement mixer before planting.

Red Brandywine tomato transplants were grown in 4 inch pots. Four plants were grown in each substrate media combination. Plants were fertilized with Nature’s Source using 250 ppm at every watering (constant feed). Plants were observed for 8 weeks. Soil tests were conducted during week 7 after planting and the results showed that there were differences in pH and electrical conductivity (EC) in the different growing substrates.

Observations on the quality of the plants, comparing the size and color of the plants showed that the best quality trans-
plants were produced using Fafard Organic mix with Sustane and Nature’s Source fertilizer combinations. Other combinations that produced good quality transplants were; Fafard Organic Mix with Pro Gro and Nature’s Source; Fafard Organic Mix with Pro Gro; Moo Doo Potting Soil with Nature’s Source and Pro Gro; and Moo Doo with Nature’s Source. Espoma soil worked best with Pro Gro and Nature’s Source, however plant quality was not acceptable.

**Grower two**

Grower two is a wholesale grower. They grow spring ornamental plants and an assortment of herbs conventionally with water soluble fertilizers through an injector. They were interested in growing herbs and vegetables organically to investigate expanding their market. They grew celery and basil in 4-inch pots using Fafard Organic Mix with Sustane and Nature’s Source. We compared the soil analysis of the organically grown celery with the celery grown using chemical fertilizers and found that the media pH was about the same. Soil pH of organically grown celery was 5.81 and the soil pH of celery with chemical fertilizers was 5.90. However the media EC was lower in celery grown using chemical fertilizers (organic EC was 1.01 and chemical fertilizer EC was 0.31). Observations on the quality of the plants comparing the size and color of the plants showed that the organically grown herbs were very good quality plants but they were slightly smaller than those grown using chemical fertilizers. Although the organic herbs were slightly smaller, they maintained their quality longer than those grown using chemical fertilizers. The grower felt that it was more expensive to grow the herbs organically than conventionally, and it was not economically feasible at this time.

**Grower three**

Grower three is a wholesale farm with a small greenhouse. They grow vegetable and herb transplants organically for their own use in the field. They currently grow transplants using fish emulsion and kelp as fertilizers in Ideal compost as a growing media. They mix up small batches of fertilizer and apply using a watering can or sub-irrigate by dipping the flats into a tray containing fertilizer.

In the first trial the grower grew beet transplants and compared plants grown with Nature’s Source (100 ppm) vs fish emulsion. Plants were fertilized sporadically (not at every watering). At 3 weeks, the plants grown with Nature’s Source were chlorotic and small, showing symptoms of nutrient deficiency. Plants grown with fish emulsion were larger and darker green. The plants grown with Nature’s Source improved in size and color after one week of constant feed and increasing the rate of Nature’s Source fertilizer to 200 ppm.

In the second trial, the grower grew kale transplants and compared plants grown in Promix MP vs Ideal Compost. Plants grown in Promix MP and fertilized with Nature’s Source were compared with plants grown in Promix MP and fertilized with fish and kelp, both at 100 ppm. Plants grown in Ideal compost did not receive supplemental fertilizer. After 3 weeks, soil tests were conducted and plants evaluated. The pH of Promix MP growing media was 5.7 for both, Nature’s source and fish/kelp and EC was less than 100 for both. The ideal compost pH was 6.91 and EC was 3.5. Assessing size and color and root health, the following observations were made:

- **Promix MP with Nature’s Source** – Small plants, chlorotic lower leaves and excellent root systems.
- **Promix MP with fish emulsion/kelp** – Small plants, chlorotic lower leaves and good roots. Similar to Nature’s Source.
- **Ideal Compost** – Large leaves, large plants, weak stems (leggy) and very few roots.

Final Thoughts: More trials would need to be conducted using the Promix MP to adjust the fertilizer rate for better quality plants. All composts should be tested prior to use for EC and pH and rates of supplemental fertilizer adjusted as needed.

The grower did not want to use a fertilizer injector or use constant feed and expressed that the use of compost that contained nutrients

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**Week 7 Growing Media Test Results**

<table>
<thead>
<tr>
<th>Growing Media</th>
<th>pH</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Espoma organic soil</td>
<td>4.96</td>
<td>1.22</td>
</tr>
<tr>
<td>Fafard organic</td>
<td>5.70</td>
<td>1.73</td>
</tr>
<tr>
<td>Ideal Compost</td>
<td>6.39</td>
<td>3.63</td>
</tr>
<tr>
<td>Moo Doo</td>
<td>6.35</td>
<td>1.90</td>
</tr>
</tbody>
</table>

Geoffrey Njue, UMass Extension (2nd from right) discussing the organic nutrition project with growers Tracie, Ron and Rick of Russell’s Garden Center, Wayland MA.
was better suited for his purpose.

**Tips from Doug Cox for using organic fertilizers in greenhouse transplant production:**

**Mixing and application:** For a number of years I’ve studied the use of organic fertilizers for growing commercial greenhouse crops. My work has lead me to recommend using different organic fertilizers in combination rather than relying on one fertilizer. The best combination I found was to use Nature’s Source 3-1-1 beginning 4 weeks after planting, and mixing Sustain 8-4-4 into the growing media. Despite the low nutrient analysis, Nature’s Source is currently the best liquid organic fertilizer. It is made from oilseed extract. The container has dilution rates expressed in familiar terms for greenhouse growers. I have seen no foliar chlorosis yet with this fertilizer. Nature’s Source is widely available and a great improvement over its predecessor Pinnacle. Sustane is a granular slow-release fertilizer made from turkey litter, feather meal, and potassium sulfate. Release time is 45 days, but nutrients may run out a little sooner. It is an excellent fertilizer to combine with liquid organics especially those with no phosphorus or potassium. The fish fertilizers and plant extract fertilizers are sold as concentrates and they must be diluted in water to be safe for plants. Nature’s Source has a pleasant “beery” aroma as a concentrate, but within 7 days of being mixed with water it “spoils” and develops very unpleasant odors. The odor, however, is not as bad as fish fertilizer. The nutrient value of spoiled fertilizer is unknown and the colonies of bacteria which develop may plug irrigation lines, so diluted fertilizer solution should be used as soon as possible after mixing.

**Nutrient disorders:** Plants may develop an overall light green or yellowed color caused by a general nutrient deficiency or, more likely, just N deficiency. For example, if Sustane is used alone the symptoms might occur about 45 days after planting, the end of its release time. This can be prevented by applying an organic liquid fertilizer supplement about 30 days after planting. Interverinal chlorosis sometimes occurs about halfway through cropping time if plants are fertilized with some liquid organic fertilizers alone starting at planting. This chlorosis is most likely caused by an accumulation of too much ammonium-nitrogen in the plant, so-called “ammonium toxicity”. Most greenhouse crops do best with a combination of ammonium and nitrate nitrogen. Unfortunately organic fertilizers generally don’t contain nitrate-nitrogen. The best approach is to rely on Sustane as the sole source of nutrients for the first month after planting and then start applying Nature’s Source or another liquid organic fertilizer.

**Organic fertilizer effects on growth medium soluble salts (EC):** Sustane is a slow-release fertilizer and its use results in low EC, and potentially a deficient level after 45 days. As for the liquid organics, at the same N level the lowest EC results from Nature’s Source (similar to chemical fertilizer) and then Bombardier. Espartan results in an EC significantly higher than the other liquid organic fertilizers which might be an aggravating factor in ammonium toxicity. In short, from the standpoint of EC, Nature’s Source is the best.

**Overcome reduced size caused by organic fertilizers:** Many growers who have used organic fertilizers have observed size reductions compared to what they are used to with chemical fertilizers. Some growers say “raise the rate (ppm)” of organics to compensate. If you have done this and it works, carry on! Otherwise give it a try starting with increases of 20% at a time. Increasing the rate in 20% increments is likely to be partially successful, but because of a nutrient imbalance, ammonium toxicity, or some unknown factor results may be disappointing or worse.

**Plant species-specific responses:** It seems that plants may respond differently to organic fertilizers. For example, marigolds and petunias grow as well fertilized with a combination of liquids and Sustane as they do with chemical fertilizer, but seed geraniums do not and are very prone to chlorosis from too much ammonium. At this point in the development of organic fertilizers for commercial greenhouse use, use them with caution on plants you know have exacting nutrient
requirements or those prone to foliar chlorosis. Fertilizers should always be tried first on a small number of plants.

**Best uses:** The fertilizers discussed in this article are probably best for short-term crops of less than 6 weeks duration when environmental conditions are most favorable for plant growth (e.g., April-September). Bedding plants, herbs, and vegetable transplants are good candidates for trying organics. Assuming the plants are of good quality and color, reduce or stop using the fertilizer within a week or two of planned marketing. This practice will reduce the chance of ammonium toxicity symptoms.

-by Geoffrey Njue and Tina Smith, UMass Extension, and Dr. Douglas Cox, UMass Extension and Stockbridge School of Agriculture

**CHOOSING THE RIGHT MARKET CHANNEL**

Diversified farming means we have to be experts in the production requirements for each of the products we produce. On top of that, we need to be able to have a market for each product. How we plan to sell our products is just as important as deciding how we will grow them.

“Simple” you say, “I’ll sell them at the farmers market or through my CSA”. Not so long ago, that option was a no-brainer, but today, many CSA’s struggle to fill shareholder slots and vendor spaces may be limited at the farmers markets. Fortunately, there are many more channels for reaching your potential customer these days. But, we need a way to evaluate those channels so we can assess which ones might be best for our business and our quality of life.

Marketing what we grow can take up to thirty percent of our time, which is time away from farming. We need to ask ourselves:

“What markets will give me the greatest return on my time and amount of product sold?”

“Am I the right person to be marketing my product?”

“If I’m not the right person, who is”?

If you decide that you are the right (or only) person to do the marketing, then you need a way to figure out how you can have a diverse marketing plan and still have time to grow your products.

The goal should be to have a marketing plan that is just as diverse as the farm products you are offering.

Let’s think about what channels you want to use to sell your products. Some market channels we pick because they appeal to us and others because they are a necessity. They aren’t our favorite market outlets, but we feel we have to do them. An example might be farmers markets. Some folks love being at the market and others do not. But, if your goal is to build up your CSA or pick your own operation, then selling at a farmers market could be a short term marketing solution to get your farm’s name out into the community. It is inexpensive advertising while selling your products as well.

Let’s take a look at an exercise borrowed from the “Guide to Marketing Channel Selection” written by Matthew LeRoux, Agricultural Marketing Specialist, Cornell Cooperative Extension of Tompkins County NY. This exercise can help you make some decisions about your marketing channels. On the left hand side of the chart we have the marketing channels our example farm is planning to use. We want to rank the channels against each other. “1” is the best criteria and “5” being the least favorable. Channels you feel are equal for a certain criteria are given the same number and the next number is skipped. After you rank the market channels, you can total up the scores, and give each channel a final ranking. The channel with a final ranking of “1” is the most favorable.

<table>
<thead>
<tr>
<th>Marketing Channel</th>
<th>Volume</th>
<th>Price</th>
<th>Risk</th>
<th>Labor Required</th>
<th>Assoc. costs</th>
<th>Total Score</th>
<th>Final Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-farm Stand</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Farmers Market</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Restaurants</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Wholesale Distribution</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>3</td>
</tr>
</tbody>
</table>
For our example farm, it looks like restaurants would be the preferable marketing channel. Over time, these rankings can change. For instance, if the volume of product sold increases for their on-farm sales then that channel may replace restaurants as the top ranking channel. We can also see that Wholesale Distribution ranks higher then Farmers Markets largely because of the labor associated with farmers markets, which can also change over time.

Finally, consider how each of the market channels will affect you personally. What is the perceived level of stress involved with supplying those market channels? What will it do to your (and your family’s) quality of life? If need be, add that as a column to this exercise. It is just as important as the rest for a profitable and happy farming life.

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Originally printed in: Vegetable and Small Fruit Gazette, Penn State Extension newsletter for vegetable and small fruit producers, September 30, 2015

NEWS

VEGETABLE PROGRAM SURVEY

I have been traveling the state this winter visiting with many of you at meetings (CRAFT, MFBF, NEVBGA, NOFA, SEMAP) to give an annual update of the Vegetable Program and to gather your input on our priorities via this survey. Your responses will help us adapt the UMass Extension Vegetable Program to better suit your needs. The survey should take you about 5 minutes to complete.

Click here to access the survey: https://www.surveymonkey.com/r/UMassVeg

Click here to read our annual report: 2015 UMass Vegetable Program Annual Report

Thanks!
Katie Campbell-Nelson

DEADLINE TO OBTAIN DISASTER COVERAGE FOR SPRING-SEEDED CROPS IS MARCH 15TH

Vegetable growers can purchase Federal Crop Insurance on potatoes and sweet corn from an authorized Federal Crop Insurance sales agent. These policies protect growers from losses due to natural disasters.

Growers of all other spring-seeded vegetable crops can obtain coverage under the Non-insured Crop Disaster Assistance Program (NAP) administered by the USDA - Farm Service Agency (FSA). Producers can obtain catastrophic coverage which provides protection for losses exceeding 50% of the crops historical yield paid out at 55% of the established price for the crop. “Buy-Up” coverage is available in 5% increments for losses exceeding between 35 - 50% of the crops historical yield paid out at 100% of the established price for the crop. An added incentive for Beginning, Historically Underserved and Limited Resource Producers includes a waiver of NAP administrative fees and a 50% reduction in NAP premiums for coverage over the 50% catastrophic level. Interested growers are encouraged to contact the USDA-FSA Office that serves their farm.

Another program that vegetable growers should take a close look at is the Whole Farm Revenue Protection (WFRP) program. WFRP provides a risk management safety net for all commodities on the farm under one insurance policy. WFRP is tailored to any farm with up to $8.5 million in insured revenue including farms with specialty or organic crops and those marketing to local, regional, specialty or direct markets. Coverage levels range from 50-85% of your farms historic
average revenue and there are adjustments allowed for expanding operations. WFRP is available through authorized Federal Crop insurance sales agents.

Now is a great time for vegetable growers to take a closer look at all of these programs to see which programs may afford them with a vital level of risk protection. More information is available through the UMass Extension Crop Insurance/Risk Management Education Program at https://ag.umass.edu/risk-management. The website contains information on all the programs. Don’t delay, March 15th will be here before you know it!

USDA CONSERVATION PROGRAMS ANNOUNCED FOR 2016

The U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS) now has 2016 federal conservation program funds available for Massachusetts farmers and forest land owners. The agency is also starting a new application ranking process designed to reduce the time that applicants must wait to receive funding for their projects. Farmers and forest land owners may apply for funding under the Environmental Quality Incentives Program (EQIP) and the Agricultural Management Assistance (AMA) program at any time throughout the year by visiting their local NRCS field office. Beginning December 18, 2015, funding decisions will be made monthly and will continue until funds are exhausted. A total of $3.9 million in EQIP funds and $120,000 in AMA funds are available for Massachusetts projects in federal fiscal year 2016.

Both programs were authorized under the 2014 Farm Bill. EQIP provides financial and technical assistance to agricultural producers and forest land owners to address natural resource concerns and deliver environmental benefits such as improved water quality, water conservation, reduced soil erosion and sedimentation, and improvements in soil health, wildlife habitat, plant and animal communities and energy conservation. AMA is designed to mitigate crop loss due to drought and offers irrigation practices.

A conservation plan must be completed before an application can be considered for funding, so farmers are encouraged to call or stop by their local NRCS field office as soon as possible. USDA Service Center locations are listed on-line at http://offices.usda.gov or in the phone book under Federal Government, U.S. Department of Agriculture. General program information is available on the NRCS Massachusetts website at www.ma.nrcs.usda.gov.

Program applicants can choose to compete in any of the various funding pools, including:

Land use pools - cropland, pasture and hayland, farmsteads, forestland, and wildlife habitat

Special initiative pools - aerial cover crops, high tunnel systems, certified or transitioning organic production, on-farm energy conservation, New England Cottontail habitat, the Palmer River Watershed water quality initiative, and third-party written Conservation Activity Plans

Historically underserved farmer pools – Indian tribes, beginning farmers, socially disadvantaged farmers, limited resource farmers

EQIP can provide eligible applicants up to $450,000 over the six-year life of the Farm Bill; AMA has an annual payment limit of $50,000.

NRCS is a federal agency that works hand-in-hand with the people of Massachusetts to improve and protect soil, water and other natural resources. The agency has offices in USDA Service Centers in Greenfield, Hadley, Holden, Pittsfield, Westford, West Wareham and West Yarmouth, which work with local conservation districts and other partners to serve farmers and landowners in their area.
**MASSACHUSETTS HONEY BEE HIVE SURVEY - 2015**

This survey was created by the Massachusetts Department of Agricultural Resources (MDAR) to serve as a tool for Massachusetts honey beekeepers to share data on hive losses that occurred during the 2015 season. Participation in this survey is voluntary. Responses will be analyzed by MDAR Apiary Program staff, who will then provide a summary of results to the beekeeping community this winter.

Beekeepers willing to submit photos documenting 2015 hive health issues should send them via email to: massapiaryprogram@gmail.com. Photos will be reviewed and responses provided in a timely manner. If you have specific questions that you want addressed, please include that information in the email.

https://docs.google.com/forms/d/11-FPM0K9F0zKLG9tNhCmPRh4m9qVqN1Jxbg2nPeKF-8M/viewform?c=0&w=1

Thank you for taking the time to complete the survey and provide feedback on the health of your hives!

Happy Beekeeping,
-The MDAR Apiary Program

**DO YOU GROW BASIL?**

Would you be interested in providing data for a multistate basil research project with Jim Simon from Rutgers and Rob Wick from UMass? One of the objectives is to learn more about the basil industry which pretty much flies under the radar of produce statistics. If you are interested in providing more detailed information about your basil production, please let us know: https://www.surveymonkey.com/r/29MSHTT

**EVENTS**

**NOFA-Mass Winter Conference**

**When:** Saturday, January 16, 2016 from 7:30 am to 7:30 pm

**Where:** Worcester State University, 486 Chandler St, Worcester, MA 01602

This annual one-day conference features 70 workshops and exhibitors; an all-day seminar and keynote speeches with Ben Burkett, family farmer and coordinator of the Federation of Southern Cooperatives; children’s conference and more. All workshops are approved for AOLCP accreditation.

*Look for these talks from UMass Extension personnel:*

- **Plant Disease Update: 2015 Year in Review, 9am** - Susan Scheufele, UMass Extension Vegetable Program
- **Biosticides: How, When and Why to Use Them, 1:30pm** – Susan Scheufele, UMass Extension Vegetable Program
- **Assessing and Managing Agricultural Risks on Your Farm, 9am** – Tom Smiarowski and Paul Russell, UMass Extension Risk Management Specialists

**Vermont Vegetable & Berry Growers Association Annual Meeting**

**When:** Wednesday, January 25, 2016

**Where:** Lake Morey Inn, 1 Clubhouse Rd, Fairlee, VT 05045

This all-day program will feature presentations on a wide variety of topics, including community accreditation for produce safety, writing a nutrient management plan, bed-steaming tunnel soils for weed and disease management, pests to look for in 2016, vegetable variety trials, and more.

**Sponsored by:** USDA, Risk Management Agency and Farm Service Agency, Vermont Compost Company, Vermont Agricultural Credit Corporation, University of Vermont Extension, and the VVBGA.

Registration is $40 for VVBGA members, $50 for non-members and includes morning coffee break and a hot lunch buffet. Pre-register by January 22! Add $10 for walk-in registration.

**New England Vegetable & Berry Growers Winter Meeting**
**When:** Saturday, February 6, 2016 from 9:30 am to 3:30 pm  
**Where:** location in Eastern MA, to be determined

This is the 591st meeting of the NEVBGA, and the second of two winter meetings hosted by NEVBGA and the Cooperative Extension programs of New England, and co-sponsored by UMass Extension Risk Management/Crop Insurance Program.

This all-day program will feature presentations on:
- Growing No-spray Blueberries in the Age of Spotted Wing Drosophila by Dale-Ila Riggs, The Berry Patch
- Research update on Organic Fertilizers and Tissue Testing for High Tunnel Tomatoes by Andy Radin, URI Extension
- The Buzz on Massachusetts’ Apiary Program from the new MA Apiary Inspector, Kim Skyrm
- Update on the new New England Small Fruit Guide by Sonia Schloemann, UMass Extension

Open to all! There is a $20.00 registration fee. This fee is waived for members of NEVBGA.  
**2 pesticide recertification credits have been approved for this meeting.**  
Contact Lisa McKeag at 917-573-5558 or secretary@nevbga.org to register and request lunch.

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**Plant Nutrition for Greenhouse Crops: On-site Media Testing**  
**When:** Tuesday, February 16, 2016 from 12:30 pm to 4:00 pm  
**Where:** Publick House, Rte 131, 277 Main St, Sturbridge, MA 01566  
Presented by the UMass Extension Greenhouse Crops & Floriculture Program.  
Cost: $30 (Includes refreshments and handouts)  
- Taking Soil Samples & Media Testing Demonstration  
- Learning to Identify Nutrient Disorders  
- Sorting Through Different Types of Meters  
- Interpreting Soil Test Result  
- Checking and Calibrating Meters – Bring your meter to be calibrated!

**For more information contact:**  
Tina Smith, Univ. of Mass, Amherst 413-545-5306, tsmithatumext.umass.edu  
Geoffrey Njue, Univ. of Mass, Cranberry Exp. Station 508-295-2212 ext. 47, gnjueatumext.umass.edu

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**9th Annual SEMAP Ag & Food Conference**  
**When:** Sunday, February 28, 2016 from 9:00 am to 5:00 pm  
**Where:** Bristol County Agricultural High School, 135 Center St, Dighton, MA 02715  
The lineup will include workshops for the general public as well as info-packed sessions for farmers and gardeners of all experience levels. Details and registration coming soon!  
Look for these talks from UMass Extension personnel:  
- Compost Analysis & Interpretation – Katie Campbell-Nelson, Vegetable Program  
- 2015 Disease Update – Susan Scheufele, Vegetable Program  
- Growing Strawberries – Sonia Schloemann, Small Fruit Program

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