



Vermont Vegetable and Berry News – June 6, 2017

compiled by Vern Grubinger, University of Vermont Extension

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REPORTS FROM THE FIELD

(Shrewsbury) Evening Song Farm. Flea beetle pressure has been unusually high on our earliest seeded brassicas under row cover. Having grown on this land for 5 years, it seems we've now built up a flea beetle population that warrants more intensive management of spring brassicas: higher standards for row cover quality, planting uncovered trap crops of brassica rapa to be sprayed regularly, and growing less brassicas to rotate more effectively.

After high spinach downy mildew pressure last fall, our overwintered Corvair spinach thrived until bolting in late April, and we have no signs of SDM in our winter seeded spinach or our outdoor plantings of Kolibri, resistant to SDM races 1-15. For the near future, variety selection may be an easy and effective way for us to manage SDM. Last summer we planted elderberries in large earth berms on a piece of our land too poorly drained for vegetable production. It's incredible to see how vigorous their growth is in a single year!

(Orwell) There is a surprising persistence that crops have this time of year. Despite cool, wet days, crops are able to harness long day lengths, converting every bit of solar radiation into vegetative growth. It seems that nothing can really stop the momentum of plants just before solstice. Well, nothing, that is, except a whopping hail storm. Fortunately, our hoop house plastic survived and the majority of our cash crops are under cover, but it is still shocking to see the damage to plants in the field. Our rhubarb looks like it went through a paper shredder, and our strawberries are badly bruised. Even the lowly burdock looks badly beaten, with fist sized holes throughout the leaves. We are glad neighboring orchards were spared, and grateful for the relative security of our own crops under covers.

(Charlotte) It is a wet and cool year so far. The strawberries and raspberries are a little too wet to get into. The blueberries are doing very well. The wet weather is allowing us to put up trellising that is much needed for the brambles.

(Waterbury Center) Its wet so plants are set back and some are struggling. Alliums planted in a wet part of the field seem to have stopped growing completely. Brassicas look healthy and green but are slow to come on; I was already selling kale and bunching broccoli this time last season where I am probably two more weeks out for those this season. Snap peas are way behind from last year. First round pelleted carrot seed barely germinated despite row cover and consistent moisture. Too many seedings with pelleted seed and I will probably move away from them next season.

Mixed greens and arugula are doing well as are the weeds in the beds. This is the second year from pasture and the grass couldn't be happier. Sorting mixed greens is much more laborious than last season. I had extensive vole/rodent damage in two of my houses and am still struggling to managing them. I will need to replant many peppers and many more cucumbers once I eradicate the rodents. It has been a very challenging spring but thankfully I maintain a smaller field and can get on it with small equipment so the rain has not prohibited me from staying on my planting schedule for the most part.

The positive: Hoop house tomatoes look very healthy and happy. Watering plants in has not been an issue ha! The garlic looks great and is benefiting from the precipitation. Farm sales began two weeks prior to schedule and from last season. First round radish shaped up very well. And I got married recently and my new wife helps at the farm occasionally. She is my first employee in four seasons and life is a little easier with quality help.

(Charlotte) The soil is wet. We had a small window mid-May that I got some ground prepped, but now we're just waiting for things to dry up again. The crops that are in the ground seem to be doing well. Just noticed evidence of the first flight of the leek moth on our garlic. Hope to hit it with Entrust soon. Asparagus produced well, and have lots of blossoms on strawberries. The first strawberries always bring customers back to the farm stand. Early season markets have been solid, neither outstanding nor a bummer. I'm hoping this season will be a reversal in the dip in farmers' market sales that happened last season. I've heard there was a statewide dip in farmers' market sales last season, and I'm curious why that was. Have we reached peak farmers' market in Vermont?

(Winchester NH) Picadilly Farm. Moisture patterns have been pretty good here, but just tipped to the "too much" side late last week. Thought we had some downy mildew in basil, but now think it was cold stress since the lab test showed nothing. Plenty of flea beetles, haven't seen a single cucumber beetle yet, and just removed ProTekNet covers we'd been using to thwart leafminer. We've hired in more people sooner, which has helped keep up with the weeding curve. Local CSA distributions just beginning, only one week later than planned, and we're happy to be sold out as of last week. Fingers crossed that we'll have enough wholesale success to round out the budget, since spending has been no problem.

(Newburyport MA) Arrowhead Farm. Cool, late start. Only harvests coming from the field are lettuces, radishes, green onions, and Asian greens. Even the cole crops and alliums are running two weeks late. We're just now starting to transplant warm weather crops to the fields. Nice bulked up transplants this spring as we moved everything up one cell size. This is a good year to have tunnel and greenhouse vegetables and strawberries, and they are finding high demand at FMs. Will start picking tomatoes this week and that will bump up sales income fast. Flowering plant sales are a different story however, as they are moving out very slowly. Having a struggle to find anyone interested in pounding tomato stakes this season---even at \$16. Farmers work hard and take risks; don't be afraid to charge enough for what you produce.

(Plainfield NH) Wet, cold and damp. Just like everyone else. We have had more rain in the last month than we got in the five months following June last year. Pretty tired of putting a sweatshirt back on in the middle of a late spring day. Strawberries are easily 15 days behind normal for us. I am concerned that continued showers and damp conditions will foster Botrytis in the fields during ripening, and to that end we are using curatives as well as protectant fungicides. It has been great weather for transplanting out, but nothing really growing and early succession plantings are going to bunch up like mad if the weather breaks to clear and warm.

I suppose the cooler temps are somewhat responsible for the lack of insect pressure and our ability to keep up with the cultivating, but looking forward to that change for drier weather. Standing water in one part of our berry fields, making it look as though some rows are beyond repair. A first here: in an effort to reduce the water table level in that field we actually pumped water out of the ponds and back into the river, a new use for an irrigation system that I hadn't ever imagined. After a day of it, it seems to be helping. A lot more expensive than a good week of sunny dry weather.

(Hampton NY) The garden is finally complete. Beets and Swiss chard are popping up. Peppers are not liking these cold days/nights. I will be putting the hoops out and covering them to give them some much needed warmth. Gladiolus are coming up. Black cutworms have been active and resulted in having to replant 1/3 of my tomatoes. Spittle bugs are also popping up. It's with springs like this that we are thankful for well drained soils.

(Ange-Gardien, Quebec) Greenhouses are pretty weed free now as we have so much time to spend inside since it is very wet outside. I did have time to lay plastic in good soil conditions and did transplant cucurbits out but they are doing everything except growing. Acclimation was not a big deal this year since it is so cloudy. Greenhouse crops look good although it is a challenge to make them evapotranspire to power growth. Watching for tip burn is a full time job this spring. Trouble with grasshoppers in GH, can't wait to get the leafy crops out so I can get the chickens in. Market is slow as customers prefer hot dishes on 15C days instead of salad mix.

(Little Compton RI) Like so many rain soaked farms, we are fast running out of workable real estate to achieve our planting goals. Have no idea where 4 acres of winter squash is going. We start seeding them in plug trays today and will just have to hope the weather will turn.

Had an old farmer give me a tip we like: when your rye starts heading up and you are worried about getting it to plow under; try mowing it at 45 degrees to your plowing direction! This avoids the clumping that usually occurs with mowing rye and plowing. Obviously, you can't wait till the rye is 6 feet tall. We are starting some no-till and having problems getting the timing right; roll rye too early and it pops back and then lodges with the wind.

It was so chilly the last month that we see chick weed germinating in our early carrots! And that is after flaming! Don't know if I can afford four hours of hands and knees to get it out. We tried over wintering carrots the last two years and now feel (after visiting Brian O'Hara in CT) that it is better to just start the planting mid-January under low tunnels and avoid the vernalization issues. Plus, November-seeded carrots always have chickweed and dandelion problems.

Lots of issues in the GH tomatoes: powdery mildew and Fulvia leaf mold. Nothing a little sun won't fix but not too much of that around. Crop is two weeks behind normal.

LEEK MOTH UPDATE

Vic Izzo UVM Plant and Soil Science Dept.

Our team at UVM's Vermont Entomology and Participatory Action Research Team (VEPART) is again leading a leek moth monitoring effort in Vermont. Last season, due to the extreme dry weather, leek moth pressure was significantly low in comparison to previous years. Recent scouting in onion and garlic fields have already indicated higher amounts of damage so far this season.

The leek moth typically exhibits three distinct adult "flights" during the season. The first flight of adults ended close to three weeks ago in the Burlington region and a little later in cooler regions. Most populations, we hypothesize, are currently in the later stages of their larval feeding. Damage should be easy to recognize in garlic as the leaves look chewed and there is often a lot of frass (insect poop) near the feeding damage, usually around the center leaves of the plant. The second flight is likely to occur in late June to early July, depending upon the temperature.

We again have traps and lures available at no cost to commercial growers wanting to scout for leek moth and participate in the statewide monitoring effort. All we ask is for participants to follow our monitoring protocol and agree to collect dependable data. Once the traps are set up, monitoring the trap is a 10-minute weekly commitment. Simply (1) observe the trap, (2) place the trap card in a Ziploc bag, (3) date it, and (4) throw it in the freezer till the end of the season.

If possible, you can upload a high resolution photo of the trap to an online retrieval application we have set up. This can be done easily with a smartphone.

For more information on leek moth or to request a trap/lure contact Scott Lewins slewins@smcvt.edu or Vic Izzo vizzo@uvm.edu

WELCOME RACHEL SCHATTMAN

I'm pleased to welcome Dr. Rachel Schattman to the UVM Extension vegetable and berry team as a Produce Safety Specialist focused on pre-harvest operations. She will be providing technical information and individual consultations aimed at helping Vermont's produce farmers reduce microbial risks on their farms in ways that fit with their diverse cropping systems. Her assignment includes conducting applied research on farms. She recently established a field study that will examine levels of generic E.coli, soil nitrate, and greenhouse gas emissions in response to different fertilization practices. Exciting stuff! Rachel earned her PhD from UVM in the Dept. of Plant and Soil Science and she also has experience as a commercial vegetable farmer. Her contact information is at the end of the article below.

MANAGING E. COLI IN VEGETABLE WASH WATER

Rachel Schattman, UVM Extension

Using a sanitizer when washing fresh produce lowers the number of microbes (such as E. coli) on the crops prior to sale. This has three benefits: it decreases the chance that your produce will make someone sick, it helps prevent cross-contamination of produce when washing, and it can extend the shelf life of your produce. Use of sanitizers is especially important for produce typically eaten raw, such as lettuce and other leafy greens, that are washed in a dunk-tank system. An on-farm by UVM Extension several years ago found that multiple rinsing reduced E. coli in leafy greens wash water, and the use of wash water sanitizer was even more effective, see: <https://www.uvm.edu/vtvegandberry/factsheets/LeafyGreensWashWater2-14.pdf>

There are several types of sanitizers available to growers, including chlorine (bleach), and PAA (a combination of acetic acid and hydrogen peroxide). Either material must be in a form that is labeled for use when washing fresh produce. Though it costs a bit more, PAA is a good choice for many growers compared to chlorine because it works over a wide range of water pH, and it is less affected by organic matter in the wash water. PAA sanitizers that are OMRI-listed for organic production include Sanidate 5.0, Vigorox 15 F&V, and Tsunami 100. See this excellent fact sheet from UMass with a table showing sources, rates and costs of sanitizers in 2015: <https://ag.umass.edu/vegetable/fact-sheets/produce-wash-water-sanitizers-chlorine-paa>

Growers who opt to use chlorine as a sanitizer may find this guide from Cornell Cooperative Extension helpful: https://rvpadmin.cce.cornell.edu/uploads/doc_452.pdf. It describes how to calculate the amount of chlorine needed in your dunk tank or sink, and when to change your wash water. Caution should be exercised when you or your employees handle sanitizers. This guide will help you and your employees stay safe.

It is also important to test the water source you use for washing produce, to make sure it is potable. Testing should be done at least annually, early in the season. Request the “NU” test kit from the Vermont Department of Health Laboratories to get counts of coliform and generic E. coli. To order kits call 802-338-4736 or see <http://www.healthvermont.gov/lab/forms>. (Note, the same test can be used to monitor levels of E.coli in water after produce is washed.) Remember that water samples must be received by the lab within 30 hours of sampling or they will not be tested. For more information contact Rachel at rschattm@uvm.edu or 802-476-2003, x212.

VEGETABLE NUTRIENT MANAGEMENT UPDATE

Becky Maden, UVM Extension

Nutrient application records are now required for all farms with over 4 acres in production, or over \$2000 in annual gross income, under Vermont’s new Required Agricultural Practices (RAPs). Records kept should include: date of application, field location, application rate, source of nutrients applied, and weather and field conditions at the time of application. Although this is a busy time of the season, growers should keep track of all applications of compost, manure, and bagged fertilizer. The RAPs also require vegetable farms with 50 acres or more in production to register as a Certified Small Farm Operation (CSFO) beginning July 1, 2017.

For questions about the RAPs, visit <http://agriculture.vermont.gov/water-quality/regulations/rap> or contact Ryan Patch at the Vermont Agency of Agriculture, Food, and Markets. Ryan.Patch@vermont.gov or 802-272-0323. If you have questions or want help with vegetable nutrient management, email Rebecca.Maden@uvm.edu or call 802-773-3349. For links to planning and record keeping templates see: <http://www.uvm.edu/vtvegandberry/NMPlinks.html>