



Vermont Vegetable and Berry News – September 1, 2015
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REPORTS FROM THE FIELD

(Hinesburg) Bringing the onions into the barn to dry. Hooped and covered the onions with Protek net at transplanting. No sign of leek moth on onions. Garlic was uncovered all season. Garlic had some leek moth damage, but loss seemed negligible. Significantly more leek moth damage last year.

(New Haven) We're feeling a real shift in harvest this week. Cucumber season is coming to an end for us. Muskmelons are done. One variety of melon did really well, the other rotted in the field due to cracking, even before ripening. The last planting of our snow peas are starting to come to an end, it was a long and productive season with them. Beans are still going strong and third succession of beets and carrots are doing really well. We've had some success with trapping voles with snap traps baited with apples inside boxes. Keeping on top of weeds has also helped. Field tomatoes continue to ripen and some (especially elongated shapes) have blossom end rot, and we think either early blight or septoria. We haven't been treating. Cabbage loppers and flea beetle have slowed a bit but continue to be a problem even after spraying a second round of Entrust. Downy mildew is getting bad, it spread from our zucchini to our winter squash and we plan to treat for it this week. We'll also be prepping for the hot week ahead with shade cloth for our lettuce that is coming in nicely. For some reason our dill is doing really lousy. It's our second time planting and the plants are just tiny and starting to bolt already as they did early in the season. We plan to seed some more trays of spinach this week and direct sow arugula and radishes. We have started laying down wood mulch in our aisles and it seems to be a good solution for weed pressure so far.

(Brookfield) Potatoes have been a challenge with no beetles to begin with, then adults being blown in on the storms. (Editor's note: I found a paper saying adults can fly up to 100 km with favorable winds!) The potatoes are smaller and dying back early. Pumpkins and winter squash doing very well, but powdery mildew hit us real quick. Cucumbers have not done well, tomatoes good, summer squash very good and all other veggies doing okay, been a strange growing year so far.

(Starksboro) Downy mildew has gone through our Genovese basil, but has not taken out the Large Leaf yet. Also lost 10% of storage onions to DM last week. Hoping to get the rest out of the field with the winter squash this week. We got late blight on tomatoes a couple weeks ago but have managed to slow it enough to save the heirlooms. The dry weather has helped a lot. We tried two resistant varieties this year, Jasper (cherry) and Mountain Magic (saladette). We only did 5-10 plants of each, and planted them outdoors near some Amish Paste. The pastes came down with blight right away (not surprising), but the other two varieties don't have a speck on them. Their flavor is that of a standard red tomato, similar to New Girl. I'm excited to try them again next year for our wholesale accounts.

(Craftsbury) Blueberry season ended on August 22nd. Our earliest closure in many years. Our yield was less than 40% of last year. We had 25 picking days and over 1800 visitors. The first week of September will get gleaners into bushes and berries into local freezers. No evidence of SWD. Moving forward, we are cleaning up the orchard, pruning old growth, removing weeds and looking for wood chips. We got the leaf and soil sample information back to plan balancing fertilizer in the late fall.

(Jericho) Looking forward to the cool nights and sunny days of fall. Bulk harvests gearing up with onions, potatoes and the first pumpkins and winter squash. Glad to have the zucchinis and cucumbers slowing down. Hiring more fall crew to bring in the harvest. The worst year we've had yet for swede midge damage, even in the fall brassicas. Expect we'll have to rotate further away next year for any chance of success with these crops.

(Ange-Gardien, Quebec) We had a colder week last week which slowed maturation of the crops. Good thing I did not promise too much corn. Market is strong and prices are good. Bumper crop of organic seedless watermelon and Metro butternut. Canary got pollinated late and the yields are not as good. Sweet potatoes look great. There is a lot of foliage but that does not mean there is a lot of potatoes underground. I wish I did not put too much N and not enough K. Crows are still a problem. Germination of fall spinach in greenhouse is not 100% I will have to do something about it.

(Westfield) It is good to have some dryer days as most of the summer was way too wet. We are seeding and planting for late fall and winter and getting ready to harvest the fall crop. Our onion got the downy mildew but they had time to size up, winter squash look very good starting to have some powdery mildew, weeds are happy as it was hard to do any cultivation in time and with the soil wet the dirt stick to the roots. I hate to said that but I waiting for the end of the summer season.

(Plainfield NH) We've been lucky to have low CEW and CB trap counts for our sweet corn this year. Alternaria showed up early in the fall curcubits and with the cool weather in June that really set the transplants back, the result is a diminished crop. Now the PM is starting to move in, and I am not sure I am willing to continue the battle. Elsewhere we are harvesting a great onion crop, we kept the blights minimal on our potatoes resulting in a nice crop of whites and golds, but our reds got too dry during tuber initiation and that evidently caused a nasty crop of scabby reds. Carrot crop has been good, with a bumper crop of fall carrots to look forward to. The trump card this year is the weather, again. We struggled trying to get early plantings in during a cold and droughty spring, dealing with irrigation and chilling stress. Succession plantings backed up in the greenhouse, and then strawberries came on and we never caught up. Weed control went out the window and we went into salvage mode after becoming overwhelmed by broken machinery, health and marketing issues. Our good crew is getting it done nonetheless and the important lesson is the dependence we have on the individuals we hire as well as how to factor in unforeseen weather events into our crop enterprises.

(Plainfield) Wow, September already. Liking the heat, but worried about how dry it has gotten. Lost my suction line foot valve in the last flood; a new is one on the way, but it will probably rain by the time I get the irrigation all set up again. Flood of greenhouse tomatoes. No corn earworm so far. Little pepper borer damage, but quite a lot of sunscald. Lots of nice kale going into the fall: Ripbor and Darikibor. Butternut squash finishing nicely, other varieties still pretty green. Root crops filling out. Looks like a busy fall. Pick, pick, pick.

(Proctorsville) Tomato harvests are abundant. Preventative measures taken to prevent blight and hornworm have paid off. Potatoes on the other hand were not so lucky. Had to cut all the tops down, but harvested potatoes look great. Large harvests of hot peppers and bell peppers. We have Mexican bean beetle for the first time, and while not much harm, the number of beetles is large. Swiss chard and kale have large harvests but we cannot seem to give it away! Cover crops are coming up nicely. Plans for putting the farm to bed for the winter are underway.

(Tunbridge) Less than three weeks without help is how long it takes for things to get totally out of control. Onions, winter squash need to start coming in, but there has been no time to harvest. I clipped some squash and boxed it up so it would not get sun scald. I bent the tops on the onions and there they will stay until we can find some strong folks who want to help bring them in. Missed a week of seeding. Did some emergency weeding, but all other weeding for sanity will not happen. Would love to have time to rip up plastic and till in finished beds, and maybe sow some buckwheat, but basically all we are doing is filling orders and picking for markets and CSA. No more making things look good. Peppers are turning red, still pulling in tons of eggplant. Tomatoes are good for making friends; lots of free seconds for the neighbors. The firsts are selling well.

Love the landscape fabric between the tomato rows this year. Of course I will not love rolling it up, since with no help that will be my November task. Late cukes are nice, but probably only another week till they fade away. Picking basil by the light of the full moon is not good, as you cannot see which patches got the wilt. (I know this crowd will see nothing romantic in that image.) We ran out of black plastic so I put basil on the ends of random rows all over the garden; good thing, as some have the wilt others do not, but these things need to be sorted out in the daylight. It has been dry, but that is saving us losing things to the weeds, and keeping the rot out of the greens. Basically the veggies all look good, just wondering if the two of us can get them all in so we can exchange them for something lighter, like green beans. At least we will save money by not needing a gym membership this fall. Deer are browsing early. Need to keep moving the ground netting around. They like to eat the greens the night after you weed them.

(Argyle NY) It's been a good summer for most crops though irrigation has been critical in between the rain. We learned to not use Krehers in our greenhouse soil mix and have had great luck with the Cornell soil mix this season, which only costs about \$35 per yard to make. We battled leaf hoppers in potatoes and had Botrytis for the first time on the onions, which has been difficult to control, though yields are still going to be good (reds the worst). Sweet onions were huge and nice; the overwintered Bridger, Forum, and Desert Sunrise were amazing and we have been seeding for fall plantings of those, plus others that were successful in trials by Becky Sideman at UNH. We are still selling the Forums which store great. The overwintered red onions were a big hit in May and June as well; Desert Sunrise and Electric are the top choices. On carrots we have diseases we haven't had in years: Cercospora and Alternaria. Bolero is tolerant so looks OK but the purples are down completely. We question if it came in with seed so will research that. We are advocates of hot water treating seeds, and will do that again with spinach as we prepare to plant the high tunnels in September. Farmers' markets have been quite strong and we will soon be preparing for winter conferences!

(Salisbury NH) Hard to find good help but it is needed to keep up. Crabgrass is our bane; trying to weed to reduce seed bank for next year. Beets are way behind this year; and of course everyone wants beets early. Liked Hickcock beans but they didn't seem to have as many pickings as Provider. The inconsistent rains made the beans spongy. Tomatoes galore. Jetstars have bad yellow shoulders. Grew Jasper by mistake but they are very sweet and popular. Sungolds had a splitting problem even though they were in the hoop house and we didn't water. Like Wisconsin tomatoes but customers either want cherry tomatoes or huge slicers. Some customers wanted huge zucchini for stuffing or making relish so then we let some grow but they didn't come right off, so into the chickens the oversized zucchini go, then back come the customers! They don't understand there isn't a "stop button" to hold things from growing. Raspberries are wonderful but earlier ones were better; fall raspberries are attracting SWD. Superpik yellow squash really prolific. Sugar Cube melons are wonderfully sweet.

UPDATE FROM THE UVM PLANT DIAGNOSTIC CLINIC – Ann Hazelrigg

The UMass Veg Notes newsletter has good info on beneficials, downy mildew in brassicas, at: https://ag.umass.edu/sites/ag.umass.edu/files/newsletters/august_27th_2015_vegetable_notes_0.pdf

Spotted wing drosophila damage seems consistent throughout the state on blueberry and now fall raspberries. This pest will find your ripening fruit, so be prepared with netting or sprays! More info at: <http://www.uvm.edu/vtvegandberry/SWDInfo.html>

Brassicas: Cabbage aphids and onion thrips pressure remains high on some farms. In Windsor County. Lepidopteran pests (imported cabbage worm, and diamondback moth) were at threshold in multiple brassica crops. Also found in large numbers in Windsor County were the pupa of the imported cabbage worm parasitoid *Cotesia Rubecula*. This good guy is a little football shaped white fuzzy single pupae. Read more about identifying beneficials in this week's article in the UMASS Veg notes. Tip burn was observed in cauliflower in a field without irrigation. This disorder is caused by calcium deficiency, which is often a result of low soil moisture and high humidity. Some broccoli crops have suffered from buttoning caused by high temperatures during head formation. Suspected boron deficiency caused scarring of stems (sort of looked like swede midge damage.) and hollow stems on broccoli. Flea beetles are present and can limit yield and can spread diseases such as *Alternaria* leaf spot and black rot. Cabbage maggots remain a constant problem for some VT growers. <https://ag.umass.edu/fact-sheets/cabbage-root-maggot>. Row covers at setting of transplants is the best approach for avoiding the pest. They are killed at high temps, so they usually are a bigger problem in spring and fall.

Celeriac: *Cercospora* leaf spot diagnosed in a large field of celeriac that went down quickly. Look for small round tan spots that enlarge, turn brown and die. The disease can be seedborne or soilborne and is rapidly spread by rain, wind, machinery. *Septoria* leaf spot can cause same type of symptoms but you would see little black dots (pycnidia) within the leaf spots on mainly older or outer leaves. <http://www.omafra.gov.on.ca/english/crops/facts/00-093.htm>

Cucurbits: Cucurbit downy mildew was newly confirmed in VT this week and is now found throughout New England. Growers who want to continue harvesting their cucumbers into the fall will want to use materials with short re-entry while still rotating between active ingredients for resistance management. See the New England Vegetable Management Guide for specific fungicide recommendations: <https://nevegetable.org/crops>. Organic control options include copper fungicides. Powdery mildew pressure is variable in fields scouted this week. Scab suspected in yellow squash in Chittenden County. Look for round lesions with olive-green fungi. This disease gets harder to control with cool fall weather and fogs. http://vegetablemndonline.ppath.cornell.edu/factsheets/Cucurbit_Scab.htm

Solanaceous: Potato foliage is going down quickly on many organic farms. It can be hard to tell if this is caused by disease or by potato leafhopper 'hopper burn'. Another case of bacterial canker caused by *Clavibacter michiganensis* on pepper was confirmed in MA this week. If you have peppers wilting and dying rapidly, the UVM Plant Diagnostic Clinic can test using a rapid assay from Agdia. It would be nice to know if this is showing up anywhere else in Vermont. It may serve as a source of inoculum for tomatoes, which are very susceptible to the disease but so far in the single VT case, the grower has not seen the disease spread into tomatoes. Seeing more and more leaf mold on field tomatoes in gardens and farms. Not sure if this is due to inoculum buildup from high tunnels. Late blight still poking up around the state on both potato and tomato. Watch for hot spots of two spotted spider mites in high tunnel tomatoes after the high temperatures.

Sometimes a picture is the quickest way to get a disease/insect question answered. Be aware that UVM email does not accept several big pictures at once, so you may need to send one at a time!
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Today: VEGETABLE TUNNEL PRODUCTION Sept. 1, Intervale Community Farm, Burlington

Join farmer Andy Jones from 5-7pm to discuss a vegetable tunnel production. Topics include new house selection, small house and big house tomato production, pepper production, soil fertility and greenhouse insect management. \$20 for VVBGA / NOFA members, \$30 others. See: <http://nofavt.org/events/vegetable-tunnel-production-andy-jones>

Tomorrow: SWD EXCLUSION NETTING WORKSHOP Sept. 2, the Berry Patch, Stephentown NY

This meeting will focus on the second year of an SWD exclusion netting project; a SARE Farmer grant fund project, and its efficacy on eliminating SWD from blueberries and smaller crops. There is also a high tunnel raspberry planting that has three years of data on a fixed spray system used to control SWD. At this event you will learn and see how to do a simple salt flotation test for early detection of SWD larvae, research results comparing commercial lures for early detection of SWD adults, what clean picking, sanitation, and immediate refrigeration accomplished despite infestation. There is no fee but please register in advance by calling Marcie at 518-272-4210. If you get a machine, please leave your name, phone, and number attending. If you have questions on the event, please contact Laura McDermott at 518-791-5038. More info at: <http://ulster.cce.cornell.edu/events/2015/09/02/exclusion-netting-workshop-and-swd-management-open-house#sthash.XyBTV0a0.dpuf>

LEEK MOTH WORKSHOPS Sept. 14 and 15, Saratoga Springs NY or Burlington VT

Leek moth is a pest of onions, leeks, garlic, chives and shallots that showed up in Ontario in 1993 and northern NY in 2009. It has since spread through northern Vermont and is likely to be found statewide in the future. Leek moth damage stunts plant growth, introduces rot, and compromises crop storage life. (See <http://web.entomology.cornell.edu/shelton/leek-moth>). A free workshop designed to help growers better understand this pest and its management will be offered from 6 to 8:30 pm on September 14 at the Holiday Inn, Saratoga Springs, NY and again on September 15 at the DoubleTree Hotel in Burlington, VT. The programs include a free buffet dinner! Register by September 8, 2015 with Marcie at 518-272-4210 or mmp74@cornell.edu. For more information, contact Amy Ivy at 518-570-5991 or adi2@cornell.edu .