



Vermont Vegetable and Berry News –September 4, 2018
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REPORTS FROM THE FIELD

(Dummerston) The annual battle with the cabbage aphids is on. I had been using a combination of safer soap and Pyganic in previous years but lately I've been seeing a lot of ladybugs so have been trying just the soap. So far though, the aphids are getting ahead of the soap and ladybugs. I'm not sure what the long-term solution is, maybe just more plantings of fall brassicas and being prepared to lose a few. Other fall crops are doing well with the usual levels of mildew in the squash and *Cercospora* in the beets. I'm glad the constant rains have stopped even though the heat wave has returned. We're looking forward to harvesting tomatoes into the fall.

(Rochester) A successful blueberry year has come to an end. We managed to completely pick out three of our four varieties but the Patriots ripened and began to drop quite early this year, we think due to the hot conditions, and we did not get all of them. The fall raspberry fruit set looks good and we expect them to ripen up in sufficient numbers for PYO customers around mid-September and are hoping for cooler nights by then to slow down the life cycle of the SWD. At present we are able to pick the raspberries ahead of their damage.

(Orwell) Summerlike heat makes it hard to believe that we have turned the corner into shorter days and longer ripening periods. Our sales are still good and it's going to be hard to turn people away as the quality and quantity declines. Wrapping our heads around ripping tomatoes out to flip quickly for greens--it's easy to lose the window for direct seeding. We are reflecting on what we need to do to up our game next year, and number one on our list is fertigation. Also making note to aim for that perfectly timed late planting so we could have a fresh load of fruit right now.

(Burlington) Tunnel cucumber production seems to be all about spider mite control and potassium management. Figuring out the biocontrols this year, we added another month (and counting) of good production to our indoor cucumbers. Now we just have to find a good long-term reserve potassium source, as even following K soil test recommendations and fertigating weekly, our tomato and cucumber K isn't keeping pace with plant demands. Gearing up to shift to fall harvest for storage, but having a hard time finding the time with all of the summer crops continuing to produce late into the season. Fall cover crops are a disaster without any significant rainfall, weeks behind, with nothing in the ground. At least we have a cool night now and then.

(Westminster West) The ongoing roller coaster that is this season continues, although it looks like we will be ending earlier than ever. Winter squash almost all in except the last of the honeynuts. Our yields are lower than usual across the board due to almost no rain all spring until mid-July, then we received about 15" since, and a freak hail storm along with 80 mph winds. Leaves stripped from the squash, but with the rain and warmth, it regrew! Some scaring on butternuts but the Delicata squash look great.

Onion crop mostly normal but did suffer loss due to excessive rain. Garlic crop running large size-wise and shipping seed grade now so get your orders in soon! Cover crops seeded and up in half the acreage and rest will follow as soon as the plastic is off the beds. Sales overall are about equal to last year even with losing yields and cutting out some crops. Definitely looking forward to wrapping up this season.

(Plainfield NH) College kids gone and Labor Day behind us signals that a "farmer's fall" is here. Onions in the greenhouse are cured, waiting to be topped. Spraying for DM and PM in the fall vines and the crop looks good. Fall raspberry crop is good with good sales.

This is the first year I have monitored my own traps for SWD, and I have to say it's pretty hard to identify what may or may not be SWD. If you look at the U Michigan key the simple banding on the wings is not the only indication; there are subtle differences in the anatomy that differentiate the different fruit flies. I have spent enough time trying to sort out the messes in the traps to realize: 1) my eyes need more than a 20x loupe, 2) I have no confidence in what I actually am seeing, and, 3) I am paranoid after getting whacked with SWD last year so everything in question everything goes into the count. It is far more difficult than dumping out moths on the hood of a truck and counting up CEW moths.

I talked to another grower who gave up and went on a prophylactic spray schedule and I am going to do the same, though I am loath to do this because the materials that are 1 day PHI are spinosad based or synthetic pyrethroids which are hard on beneficials. Tough choices.

Beginning vine desiccation in the potatoes and will start harvesting fall cucurbits later this week. The blueberries are lost in in the weeds and need some attention before the pokeweed, bindweed, borage and buckthorn get a leg up on us. The summer raspberries have been cleaned up but would profit from a little detail pruning, but with the lack of bodies it will be hard to consider until after Columbus day when our farmstand traditionally closes.

(Argyle NY) Just when we thought the hot weather was behind us, another round. Beans and tomatoes are maturing fast but we hope that will slow down soon. Onion crop is dismal this year, probably due to the hot weather even though we had them on white plastic. The over-wintered onions did great and will carry us through the winter, and we just seeded onions to transplant in October.

Diseases and insects have been minimal which was a blessing since we got behind with the weeds at one point due to not enough help and time spent preparing for our daughter's wedding, which was last Sunday☺! Markets continue to be strong and we have kept up our greens production well with irrigation in-between the minimal rains. Sweet potato crop looking good and pumpkins/winter squash are maturing way early, as well as regular potatoes.

New London, NH- Farmstand sales were steady through the holiday weekend. We are still harvesting pretty much everything out of the fields. We are trying to keep up with picking while also training an almost all-new field crew for the fall. Sweet corn has been growing like crazy with the heat and we are hoping later plantings don't all catch up to each other. Day-neutral strawberry crop was off to a great start before the month of rain but the extended period of saturated heavy soils caused some root rot issues. Fall raspberries are now being harvested and it looks like we are in for a plentiful crop. Onions and shallots are pretty much all harvested at this point and bulbs are curing nicely.

Projects besides picking include getting fall cover crops seeded, irrigating, summer raspberry pruning, miscellaneous weeding, mowing of field edges, fall fertilizing of June-bearing strawberries, and the usual pest control. Powdery mildew and downy mildew are starting to show up in older summer squash and cucumbers so we have switched to a preventative and curative fungicide program from here on out. Basil downy mildew is here in force, and Cercospora leaf spot became a serious problem in late-planted beets.

Tomato houses remain pretty clean in terms of insect and disease populations. Regular applications of Cease and Milstop have helped keep plants clean through the hot, humid weather. Corn earworm numbers have been high this season requiring frequent control but despite the long periods of wet weather and high pressure, control has been pretty effective. June bearing strawberry foliage remains very clean for this time of year with hardly any leaf spot or powdery mildew to be seen.

SOIL HEALTH REMINDERS FOR FALL

Becky Maden, vegetable nutrient management specialist, UVM Extension

Cover crops: As fall closes in, try to make the most of your investments in time and seed cost by sowing cover crops at the optimal times. Now that September is here, your best option for a winter cover is winter rye. Sow with hairy vetch for N fixation up until about September 15. Sow 15-25 lbs. vetch mixed with 60-80 lbs. rye per acre. If you haven't grown vetch before in a field remember to apply the correct legume inoculant to the seed. Cover crops are not only soil builders and erosion reducers, but they also scavenge soluble nutrients remaining in the soil after crop harvest, then these nutrients can be available to crops next year after the covers are incorporated.

Soil sampling: Before you plant your high tunnels into fall / winter greens, you may want to take a soil sample. We recommend the UMaine "Long term high tunnel package" for \$25/sample. <https://umaine.edu/soiltestinglab/wp-content/uploads/sites/227/2018/07/Soil-Info-Form-2018.pdf> Field samples you can do any time before the ground freezes, get soil test forms and send to the UVM lab for \$14/sample: https://pss.uvm.edu/ag_testing/?Page=soils.html

UPDATE FROM THE UVM PLANT DIAGNOSTIC CLINIC

Ann Hazelrigg, UVM Extension plant pathologist

Downy mildew on basil has appeared. The upper sides of the leaves are yellow and look nutritionally deficient while the undersides show the dirty looking sporulation. A Chittenden co. grower has tried the new basil cultivars from Rutgers and they remain uninfected next to infected plants. White mold on basil seen causing rot/collapse. This fluffy white mold (Sclerotinia) has a wide host range and in one week I also saw it in tomatoes and green beans, probably a result of the wet humid weather. Within the white mycelia, black sclerotia form. These are long term overwintering structures and will start new infections next year so clean up and destroy plants infected with this disease. Use good plant spacing to improve air circulation.

Brassicas-Brown beading and collapse of individual flower buds in broccoli was seen last week as a result of the hot dry weather with bacterial and fungal pathogens showing up as secondary organisms. Swede midge damage seen in fall broccoli.

Cucurbits-Everyone is seeing powdery mildew but I suspect there is now some downy mildew showing up, at least in southern Vermont, since it has been reported in Massachusetts in several cucurbits. Downy mildew <https://ag.umass.edu/vegetable/fact-sheets/cucurbits-downy-mildew> does not overwinter here but blows up on storm fronts, usually showing up in late summer. This disease can be hard to diagnose: lesions first show up on the upper leaf surface of older leaves as small, angular, slightly chlorotic areas. When conditions are favorable (100 percent humidity for at least six hours with temperatures between 59°F and 68°F) the pathogen produces fruiting bodies (sporangia) on the lower leaf surface, giving the undersides a light gray/purplish downy appearance. Lesions can coalesce resulting in large areas of dead tissue, exposing the fruit to sunscald. Quick and widespread defoliation can occur when conditions are favorable. Resistant cultivars and fungicides before detection are the best options for management.

Growers with pumpkin, melons or other squash growing in fields that been saturated with rain for several hours should be on the lookout for Phytophthora fruit rot. This soil borne pathogen causes a whitish yeast-like rot on the fruit, often seen first in low spots or poorly drained areas of a field. Growers should remove infected debris and diseased fruit from fields, improve soil drainage and use a good rotation. Phytophthora blight has a wide host range, so avoid susceptible host plants in the field rotation (snap and lima bean, cucurbits, peppers, eggplants and tomatoes). Implements can easily move the pathogen from field to field. <https://ag.umass.edu/vegetable/fact-sheets/phytophthora-blight>

Squash vine borer should be starting its second flight around now resulting in more damage to crowns of cucurbits. Look for wilting and frass (insect feces) at the base of infested plants. You can dig around and find the larvae tunneling in the stem.

<https://ento.psu.edu/extension/factsheets/squash-vine-borer>.

Leaving pumpkins or squash in the field after they have reached maturity can expose fruit to weather, chilling injury, diseases and insects. For a good article on harvesting squash go to https://ag.umass.edu/sites/ag.umass.edu/files/newsletters/august_30_2018_vegetable_notes.pdf

Tomatoes-Late blight still fairly far away and as long as the weather continues to be hot and dry, the pathogen won't likely come closer. Septoria has exploded as a result of recent rains causing small black leaf spots with gray centers starting on lower leaves and working their way up the plant. Fruit cracking from too much rain showing up.

As always, if you need help with a diagnosis, send a picture to ann.hazelrigg@uvm.edu, or mail a plant to the UVM Plant Diagnostic Clinic, Jeffords Hall, 63 Carrigan Drive, Burlington, 05405.

PRODUCE SAFETY ALLIANCE GROWER TRAINING COURSE

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