



Vermont Vegetable and Berry News – September 3, 2020
compiled by Vern Grubinger, University of Vermont Extension
(802) 257-7967 ext. 303, vernon.grubinger@uvm.edu
www.uvm.edu/vtvegandberry

2020 VERMONT VEGETABLE AND BERRY GROWER WEBINARS

Wednesdays from noon to 1:00 p.m. For details of upcoming topics and links to past presentations see: <http://www.uvm.edu/vtvegandberry/Webinars2020.html>

REPORTS FROM THE FIELD

(Marlboro) This year has been a better-than-average berry year as far as the impact of SWD on yield, whether it is management or pure luck, but here are some of the things we have done for spraying. I'm sending because this may be useful to others and because I will have forgotten most of this by next year anyway.

We have been using the same Spinosad-Spinosad-Pyganic rotation as in the past, but started earlier in order to control pest spread. As soon as the first SWD were seen in traps, before fruit was really even ripening, was the first spray. Our earlier patches got the first spray, then later patches started later so there were always berries to be picked allowing the required re-entry waiting period. Then a weekly application on each berry patch, alternating as above.

We also used a lot more water per acre or ounce of material, and sprayed more slowly and completely, to make sure that all bushes were sprayed well and the ground was covered as well. This takes time, a blueberry bush or a row of raspberries can become so dense during the growing season that they need to be thoroughly sprayed with fairly high pressure from both sides.

The first berries to be picked after a spray MAY have some SWD in them, and this does NOT mean that the spray was ineffective. Those berries were attacked before the spray and getting them picked and off the bushes will help further spread. The next pickings tend to be better berries with way less SWD damage.

Cool August weather has helped also, as it did last year. Our worst SWD came in late July and early August this year.

(S. Royalton) Watermelons were very early and have almost picked all of them, that has never happened this early. Cantaloupes winding down, huge. Toms loving life, but no fruit on peppers and eggplants probably due to blossom drop during the heat wave. Getting ready to top the storage yellow onions, which we have been drying in the field for years. Saves a ton of time. We pull and windrow them, let them dry, and then go through the field with the onion topper and haul them into the barn in boxes ready to sell.

(Plainfield) PYO blueberries started around July 20, as usual, and ended around August 20, also usual. Raspberries came in late for the early varieties, and early for the late varieties, so Nova and Encore and Latham and Taylor were all fruiting at the same time in late July. Elderberries came in early while raspberries were late overall and blueberries on time. Go figure!

Blueberry production was down. Lost about 50 gallons or more to mummyberry (down from 150-gallon loss in 2019). Almost no loss to SWD due to instituting sale price the first week of August to keep the place picked out, and also placed hummingbird feeders throughout patch. Work trade this year was placing mulch to drown out mummyberry. Next year will do physical mulch disturbance again and will also spray 50% urea on mulch when forsythia blooms. After learning how toxic both synthetic and organic fungicides are to pollinators I will do full spray of dilute soap spray and maybe hydrogen peroxide when blueberries are blooming and I need to spray to reduce mummyberry.

(Elmore) Big year for tasty crabapple harvests! Even though planted apple tree crops are low, wild apple trees are loaded. Go figure. We had so many blueberries, but because of the heat, they were small and light so it was challenging to fill orders. Northern kiwiberries are pumping out their strings of singing fruits, and we have never seen blackberry harvests so early, so heavy and for so long! About two weeks earlier ripening for everything this summer. seaberries and elderberries already at peak. A lot all at once.

Never seen it so dry. Even established trees and vines wilting a bit as they hold out for the morning dew or a dash of rain. Very grateful for drip irrigation and sprinklers this season. For our first 30 years we never needed it and over the last 12 we could not do without it.

Planted our first trees last week out of our gravel bed system we are testing. We will report on how they do and if this system is promising. After one year the trees look great and grow "bearded roots" with many feeder roots quickly, so transplanting success looks highly attainable without large inputs of bought-in soil mixes or plastic pot use. Time will tell if we can pull them up in summer and move them without them wilting.

Large Reliance peach crop in our unheated high tunnel this summer. Great quality. Shows what a thin layer of plastic with some warm earth and air mass can do to make it a zone or two warmer for those fruits we always wished we could grow in northern Vermont but knew it was just a dream.

(Westminster West) We have had a severe dry year in southern Vermont. I had our fire dept. bring us 3,000 gallons of water to fill storage tanks for irrigation. Of course it rained the next day, only an inch, but the crops loved it. Built a new huge irrigation pond, ready for next year!

Just finished squash harvest, about average. Fewer acorns, larger delicata, crazy amount of honey nuts, and bug damage on red kuri and green kabocha. Huge outbreak of both squash bug and beetle at the very end of the season, after keeping them away all summer.

Not happy with shin gang tomato rootstock. Carrot germination was horrible this year! Raspberries attacked by tarnished plant bug! Potatoes look great, fall tunnel beets look great! Seed garlic selling well. It's been a very interesting year!

(Westminster) The recent rains and cooler weather have been a welcome relief after a hot, dry summer. That has really straightened out the lettuce crop, although our markets in more southern states have once again copped out and we'll be harrowing under a lot of lettuce like we did early in the season.

Harvest of winter squash is underway with yields looking fairly good. Other storage crops like beets, carrots, and rutabagas have all had their layby: the final cultivation before the canopy covers the soil.

One positive effect of Covid-19 is that a fair number of our local workers who would be returning to college now will be staying on to work through the fall.

(Rochester) Blueberry picking came to an end August 30, though there were only gleanings left the last week. It was our best blueberry harvest since the arrival of SWD in our area. The very dry weather was helpful: the wild brambles and honeysuckle on the farm boundaries mostly shriveled up, depriving SWD of its first place to start breeding; we ran our drip irrigation continually, by zones, giving the plants about 12 hours of watering every fourth day; and there was plenty of heat and far less insect and weed pressure. Our pruning was much more aggressive this year and we left little cover inside the plants for the insect to be comfortable.

We also sprayed the entire planting, including the boundary, with Entrust and then closed for a day rather than spraying just some of the planting and leaving part of it open for picking, and we were not prevented from choosing the ideal time due to rain. We used organic Erythritol as a spray adjuvant this year, informed by a talk given by Rich Cowles of the Connecticut Ag Experiment Station. He explained that this type of sugar cannot be processed by *Drosophila*, turning the fly into the equivalent of a diabetic and interfering with its ability to reproduce.

We caught many SWD in our traps before we sprayed and before the fruit had ripened so they were certainly present and these captures were earlier than usual by a day or two. But SWD damage this season was almost non-existent. Even overripe fruit that was not picked promptly, and that we would have expected to be infested with larvae and with adult flies congregating on the outside, were mostly unaffected. I am sure the dry conditions were a part of this as was our pruning and spray-the-whole-farm protocol, but I have to think Erythritol was a contributing factor. Certainly nothing is to be lost by using this simple sugar as an adjuvant. For those who do not wish to spray pesticides at all, perhaps just applying this benign sugar will keep SWD numbers from multiplying exponentially. It would be an interesting experiment.

Growers should note that the pre-harvest interval for Entrust is one day for blueberries according to the label on the bottle, just as it is for raspberries. It used to be three days and there are zombie labels online that still say three. It makes all the difference.

(Salisbury NH) It has been the busiest season sales-wise. Just wish we weren't in a major drought as we normally would have so much to sell. Lots of new customers coming. Some things have survived; field tomatoes look fabulous. Other things like beets and carrots would not germinate unless we hand watered. With no irrigation we just did the best we could. Practically no rain all summer but finally got 1.5 inches last Saturday.

This was the worst year ever for CPB. They decimated most of our potatoes. Corn was not bothered by any animals (raccoons, porcupines, or bears - oh my). Cucumber beetles were non-stop. So far only a small amount of downy mildew. Like every farmer we are already thinking about next year.

(Germantown OH) We've been dry here in Ohio. Hurricane Laura's rain never materialized like it was expected to. Cover crop cocktail is approaching a solid 5-foot high. I put too much millet in it and sunflowers/cowpeas aren't as predominate as we wanted. Our test vegetable fields are looking okay; when the herbicide from decades of no-till wear off the weed explosion is real.

(Plainfield NH) Our summer drought ended this past week with thunderstorms and a frontal system that brought cooler temperatures and a couple of inches of much needed rain. Ripening is slowing down so we are sourcing some things for our farmstand from others as we wait for new blocks to mature. Blueberries finished up about two weeks early this year and were able to get the crop off without any significant SWD injury, and now we are turning to spray fall raspberries as the Autumn Britten and Carolines are almost ready. SWD are everywhere in the pokeweed and wild blackberries.

We are trying to get two acres of onions pulled and onto greenhouses benches for the tops to dry down. Is it me or were the weeds on steroids this summer? We had good weed control in our onions up until about two weeks and now we need a whole-tree harvester to deal with them so we can find the onions. The strawberries are OK for the moment, but I know that the remaining weed escapes will be large by the time frost takes them down. As some workers go back to college, there is no extra labor to spare on the niceties of weed control, just full bore harvest and packing.

Fall crops look good at this point. Hoping to finish getting onions in this week, in-between harvests, wholesaling and CSA, and then start digging some white and red spuds. Carrots and crucifers look good, winter squash a bust due to some bad management on my part. We are on a spray program due to the arrival of foliar diseases and fall fog here along the river. The field tomatoes are clean so far, but the DM is on the late vines, and despite rotating materials, we seem to have limited success in staving it off for very long.

Sales remain strong, but they have been influenced by the pandemic. Not planning on this year being the norm. Interesting factoid: I talked to a local clothing store owner about the effect on his business. He said they tracked gross sales as well as # of people coming through the doors in their 4 stores. By August 1 his stores were off 31,000 visits, but the total gross sales were on track with last year.

(Argyle NY) Finally, cooler temperatures so we are now using tarps to keep things dry instead of irrigation being key. A steady work force has been a challenge but we are catching up on the weeds in the fall crops. Germination of crops like spinach and carrots was difficult due to the heat but we now have a nice stand of fall spinach with about 10 varieties. Our most-asked customer question is “When will you have spinach?”

The heavy rain events have made us realize how great a storm drainage system is, so we will have another one installed this fall by the barns where the slope causes wash outs. Some areas of our Brassica field developed Rhizoctonia in lower areas with wet soils, and stressed transplants (mostly cabbage). Fall crops look good including sweet potatoes, leeks (now harvesting), broccoli (just starting), and winter squash (maturing early). Late-planted potatoes will be a wildcard but interestingly, no leafhoppers and the plants look wonderful.

Still undecided about the best path for winter marketing but keeping markets and home delivery options open. Markets and online sales remain strong. We are seeding and preparing for winter production in our three large high tunnels, as well as several smaller tunnels for season extension. Nice to have cooler and shorter days, and to see the flea beetle mostly go away!

SOIL HEALTH UPDATE

Becky Maden, UVM Extension

Fall Cover Cropping: Now is a perfect time to seed winter rye and hairy vetch into fields that will go into summer cash crops next year. For fields that you expect to plant early next spring, skip the vetch and seed straight oats or winter rye. Depending on the weather and where you are in the state, after about 9/15, your opportunity to seed anything other than winter rye declines rapidly. The earlier you seed it, though, the more biomass you'll have next spring.

For more information and resources on cover crop seeding, check out the slides or the recording from our most recent VVBGA Webinar at:

<http://www.uvm.edu/vtvegandberry/Webinars2020.html>

Soil Sampling: Fall is also a perfect time for soil testing. You can find soil test forms and sampling instructions at the UVM Ag Testing Lab web site:

https://pss.uvm.edu/ag_testing/?Page=soils.html. If you would like help sampling your fields, or assistance with soil health planning in general, please reach out: rebecca.maden@uvm.edu

UPDATE FROM THE UVM PLANT DIAGNOSTIC CLINIC

Ann Hazelrigg

Downy mildew was found in cucumbers in southern Vermont. Symptoms include small brown spotting on the upper leaf surface limited by the veins (so it looks sort of angular). Brown dirty spores are sometimes visible on the leaf undersides. The disease starts on the older leaves first and leafspots can coalesce and cause defoliation when conditions are favorable.

The pathogen does not attack the fruit. Downy mildew infects cucumber, melon, squash, pumpkin, watermelons and other cucurbits.

This is not the same pathogen that causes downy mildew in basil. The good news is that it does not overwinter here, but blows in on storm fronts. Although it can appear anytime in the season, it usually doesn't show up until late in the season. You can track presence and predict risk of the disease in the state on this national website <http://cdm.ipmpipe.org/>

To manage, use good plant spacing and avoid overhead irrigation. Choose resistant cultivars-many cucumber cultivars have good levels of resistance to downy mildew. Watermelon and melon cultivars are available with low levels of resistance. Squash and pumpkin cultivars are resistant to some races of the fungus but are very susceptible to others. Protectant fungicides should be applied when the risk is high. For more info on the disease, symptoms, resistant cultivars and a discussion of the products available check out <http://vegetablemndonline.ppath.cornell.edu/NewsArticles/Cucurbit%20Downy%20Mildew%20MGT%202019-NY-McGrath.pdf> More information is available here. <https://ag.umass.edu/vegetable/fact-sheets/cucurbits-downy-mildew>

If you need help with identification of a disease or pest, send pictures to ann.hazelrigg@uvm.edu. Samples can be sent or dropped off at my home address: 206 Walker Hill Rd, Williston VT 05495.

TECH TIPS FROM THE UVM EXTENSION AG ENGINEERING TEAM

Andy Chamberlin

Project Planning for Postharvest Efficiency, Profitability and Food Safety (Free 8-Part Packshed Webinar). This video series focuses on postharvest upgrades for your farm. Whether your project is organizing a relatively simple outside wash station or building a full packshed from scratch, we share the principles and practice with examples to help you make the most of it. <http://go.uvm.edu/phwebinar>

The Ag Engineering Podcast. This is being produced with funding from Northeast SARE Partnership Grant. This series of podcasts shares tools, tips and techniques to improve sustainability on your farm. This blog post shares about the project, what we talk about, who is on the show and info on how to listen. <http://go.uvm.edu/aep>

Safe and Efficient Drying and Curing of CBD Hemp. We teamed up with the Resource Innovation Institute, Efficiency Vermont, and VT Division of Fire Safety recently teamed up to provide a webinar as part of the UVM Extension NW Crops and Soils Team Hemp and UVM Extension New Farmer Project series. This session focused on safely and efficiently drying and curing hemp to support customer quality needs. <http://go.uvm.edu/dryingcbd>

A Visit to Market Farm Implement. Last winter I made a side trip to Market Farm Implement in the south western part of Pennsylvania. They are a popular manufacturer, importer and dealer for small scale vegetable crop machinery. I visited to see behind the curtain and check out what they have going on at their facility. <http://go.uvm.edu/mfi>