Vermont Vegetable and Berry News – September 4, 2024

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https://www.uvm.edu/extension/horticulture/commercial

REPORTS FROM THE FIELD

(Waterbury) On our cut flower farm tarnished plant bug and white fly populations have been very high. Dahlias are very late due to heat and rain Buds are finally starting to open. Zinnias are producing in good numbers. We have browns spot on some plants but they are able to grow out of it. Ours are on black landscape fabric to help limit disease.

(Westminster) In some ways, it's been a good growing season, at least in southern Vermont. Except for a few too-hot days and a few too many rainy days, it's been okay overall. One problem is some crops maturing too early – the sweet corn season, for instance, may end earlier than would be helpful. A bigger problem is with some storage crops maturing early. A few of our standard cabbage varieties weren't available and of the different ones we tried, some did well. But we are harvesting them already when we usually wait until October. Let's hope they keep well in storage.

Winter squash is ready ahead of time, too, which is good because we won't have to worry about frost. With luck, it will also hold up well in storage, unlike last year when it all rotted. And soon we'll start harvesting parsnips. By getting a fair amount of our winter crops in early, we'll be able to send most of our H2A workers home earlier than usual.

One benefit to us, although not to our northern fellow farmers, is that we're selling way more carrots than usual, making it hard to keep up with our regular accounts. Lettuce and kale are steady. After several weeks of poor lettuce, the crop is looking better with the cooler weather.

(Starksboro) Late blight on tunnel tomatoes, whomp whomp. Waiting to see if we get our first frost Monday night.

(Westminster West) Feels like fall with this morning's temperature of 42. Non-stop harvesting and patching a crew together however I can. Considering we were hit by hail a month ago, things aren't too bad. Two-thirds of winter squash is in the barn or tunnel for curing. Seed garlic all cured and selling well. Sweet onions did well, tomatoes are petering out.

Potatoes are about finished; we started digging a few weeks ago. Tried a couple new varieties, Magic Molly and Pinto Gold. Both have strong tops. I tried a new CPB regimen this year that was a great success! Hardly any CPB in the field at this point and no leafhoppers. Sprayed 3 times, first with Beauveria bassiana, trade name BioCeres WP, combined with Azera and Kinetic. Next two applications I added Entrust. After the last spray the field was 99% clean. Now my problem is the few weeds that the Treffler and Einbock weeder missed, and selling the crop.

(Plainfield NH) Fall is creeping into the Upper Valley; you can see it in the trees and flora. It is getting dry here once again as we have been missing nearby showers. Some very, very Hail Mary sweet corn planted in August is clearly not going to mature, so I likely will drill winter rye, vetch, and hog radish (my go-to fall cover crop) right over the top of it.

Potatoes are still to be burnt down. Although the Russets seemed to struggle this year there is a good crop of reds, whites and golds. Short on colored peppers because both eggplant and peppers dropped flowers in the heat of July. Carrots look good with the first of four plantings binned up in the cooler. Beets did very well as well, also in the cooler. So far the pumpkins and hard squash seem very disease free and though the set is modest, quality looks fine.

This summer's big learning experience came during our war with the deer, or as we say, rats with antlers. After hoovering up all the early zuke fruit, we put up an elaborate geometrical electric fence because deer are put off by a fence they can't get spatially comfortable enough to go through or jump. It's a lot of material to put up, but it worked well on beans and pumpkins. We found Trico deer repellant (lamb fat by-product) to be ineffective even at full strength, no more effective than the ammonium soap product Hinder.

The shorter days and cooler temps have revived most of the outside field crew who now are readying for the long, short-handed fall harvest. The farmstand crew has another month or so to grind it out, and they too are short-staffed because they have lost bodies to college.

(Little Compton RI) Winter squash is maturing quicker than expected. Learned not to put sugar pumpkins and acorn squash (that mature early) in a large field of butternut which likes to sleep in a bit more. Trying to keep the powdery mildew on the sugar pumpkins from jumping over to the butternut has been an extra chore I don’t need.

We used the 3-D electric tape fence from Wellscroft with a combo of Trico in the entrance areas to keep the deer successfully at bay. On the 3D fence it is very important that the second outside fence be at least 4 to 5 feet away to make the deer reluctant to jump over the combination. Too close doesn’t affect their fear or bad depth perception, which is the purpose of the exercise. We also bait the outer electric tape so they get that message loud and clear! Another factor affecting our success is that we had the most even moisture/rainfall in 40 years of farming. So the deer had many nice fields of clover, etc. to feed on without having to go after their usual crop favorites.

Tough year for GH tomatoes; going down with grey mold etc. I bought a 50 gallon GH sprayer with 150’ hose to give them a prophylactic brew of Double Nickel and Cuervo/copper every week next season. I put in five cucumber crops because there’s no good organic downy mildew control; almost ready to try a mid~summer greenhouse for cukes.

It’s taken us two years but now fully in love with our ‘Wizard’ vacuum seeder. Even got it to plant bean seeds super accurate! Interseeding our late brassicas today with oat/red crimson clover mix. Alternaria is our biggest disease issue now our farm.

(Argyle NY) Tunnel tomatoes, eggplant and peppers have recovered from excessive heat and cranking out more than we need! Weekly fertilizing this year has helped. Saw the largest number of tomato hornworms ever (hundreds). Lowest levels of cucumber beetles and squash bugs! Peppers had mites on some plants. Unusual but easy to control with Neem. Cucumbers fading due to diseases and age.

Pole bean trial production has been outstanding. Seychelles (green) Northeaster for Romano, and Monte Gusto for yellow are the best. Planted too close together as too thick though so harvesting is harder. Spacing should be 6-8" likely. Celery has been an issue for first time ever with Aster Yellows brought in by leafhoppers. Second planting just starting but still a loss of production; another crop to consider netting.

First winter plantings soon in the tunnels. Working on getting a steamer for our local group. Our old one is not usable anymore, will sell for parts. We have not steamed in 3 years but feel it's valuable to do again.

Field production: leeks been covered for a month with Protek netting for exclusion of allium leaf miner. We had great losses uncovered the last few years. Started harvesting smaller leeks. A few slow weeks of lettuce in August due to germination issues in the GH.

We switched to buying Chandler plugs for our annual bed strawberries instead of growing from purchased tips, for the first time in 15 years. Will plant them next week. Have a great crew but still never catch up. Working on a 5-year plan to retire or reduce the hours worked!

UPDATES FROM THE UVM PLANT DIAGNOSTIC CLINIC
Ann Hazelrigg, Extension Plant Pathologist

Late blight (Phytophthora infestans) has appeared high tunnel and garden tomatoes around the state (Underhill, Williston, Starksboro, Fairlee). Cornell testing of a sample identified it as "US-23, mefenoxam/ridomil sensitive, potato and tomato pathogen, A1 mating type." This strain also attack potato. To protect against the disease in fields or high tunnels, keep crops protected with a copper product or conventional fungicides (avoiding the two mentioned above that the strain is resistant to) to try to ride out the rest of the season. Luckily the coming week looks dry and sunny but morning dew can also wet leaves. For images of the disease on tomatoes see: https://blogs.cornell.edu/livegpath/gallery/tomato/tomato-late-blight/

Phytophthora fruit rot of pumpkins (Phytophthora infestans, a different genus of Phytophthora than late blight) attacks cucurbits, pepper, eggplant, and tomato. It is causing widespread meltdown in mature pumpkin fields that had rain-saturated soils last week. The soil-borne pathogen becomes active when the soil is saturated for 24 hours. The motile spores attack fruit that is in contact with the soil, causing water-soaked spots to appear on the fruit, eventually producing sporangia that look like yeast or powdered sugar. The sporangia on the fruit are airborne and can spread the disease throughout the field. Seemingly healthy pumpkins can disintegrate in bins after harvest. From Cornell, "Asymptomatic affected fruit should develop symptoms within a week. It is especially important to harvest before rain. Growers have asked about disinfectants to protect pumpkin fruit. None are registered for this use. Furthermore,

applying a disinfectant to fruit will only kill spores on the fruit at the time; it will not stop the fungus if it has already started to infect the fruit and it will not affect spores that land on the fruit after treatment."

If caught early in a limited part of a field, infected plants plus a healthy border row can be tilled under to protect the rest of the crop. The pathogen is easily moved on equipment, so power wash between fields. Improving drainage, long rotations with corn or other non-susceptible crops and use of protectant fungicides will all help minimize the disease in the future. For more details and pictures see this information from Cornell: https://www.vegetables.cornell.edu/pest-management/disease-factsheets/phytophthora-blight-of-cucurbits/ and from UMass: https://ag.umass.edu/vegetable/fact-sheets/phytophthora-blight

Soft rot in carrot suspected (Erwinia carotovora) in YaYa carrots and other cultivars due to heavy clay soils and wet conditions. When the carrots were harvested, only the core came out intact while the outer portions of the carrot were left in the ground as a slimy mess.

Anthracnose (Colletotrichum coccodes) diagnosed on pepper fruit. The pathogen causes sunken black spots on the sides of the fruit and are often accompanied by orange spores. Rotations, fungicides and controlling Mother Nature help minimize the disease.

Broccoli brown beading seen. Hot temperatures may have caused the initial damage, but Alternaria was also found in the brown damaged buds. Brown bead occurs most commonly during warm temperatures. The optimum temperature for the growth of broccoli is between 60 and 65°F, and brown bead becomes more common as temperatures rise above 75°F. Temperatures during the five days before harvest are especially important. There appears to be an association of brown bead with low levels of calcium (Ca) and high levels of magnesium (Mg) and potassium (K).

Downy mildew diagnosed in horseradish, but the fungal-like pathogen can attack any brassica crop. Symptoms include small angular leaf-spotting on the upper leaf surface with dirty spores associated with the lesions on the undersides. Heavy sporulation gives leaf undersides a gray to purple, downy appearance. https://ag.umass.edu/vegetable/fact-sheets/brassicas-downy-mildew

As always, send a photo first or a sample to ann.hazelrigg@uvm.edu or the Plant Diagnostic Clinic, 63 Carrigan Drive, Burlington, VT 05405.

POLLINATOR SUPPORT REPORT
Laura Johnson, UVM Extension

Throughout August, ten farms in north-central Vermont monitored and submitted reports of insect pollinators visiting blooms of buckwheat, mustard, and pea cover crops. On buckwheat the average number of insects observed visiting blossoms in 10 minutes were: 19 honey bees, 2 bumble bees, 4 other bees or wasps, 25 flies, 1 moth or butterfly, and 1 beetle. On mustard the averages were: 71 honey bees, 2 bumble bees, 3 other bees or wasps, 10 flies, 4 moth or butterfly, and 2 beetle. On pea blossoms the averages were 1 honey bee, 4 bumble bees, 2 other bees or wasps, 0 flies, 0 moths or butterflies, and 0 beetles.

Stay tuned for more information from this on-farm project that is assessing the cover crop sequences for supporting pollinators, funded by the Northeast Risk Management Education program.

UPDATES FROM UVM EXTENSION AG ENGINEERING
Andy Chamberlin, UVM Extension

Our latest blog post "A Guide to Preparing High Tunnels for Extreme Weather" is now available at https://go.uvm.edu/extremetunnels. High tunnels and greenhouses provide protection for crops, extend the growing season, and improve yield and quality. However, climate change brings both a higher frequency and increased intensity of extreme weather events. It is important to think about how high tunnel structures can best be built and modified to endure the extremes. The blog post summarizes specific practices to consider and as well as experiences shared by the VVBGA growers, including individual grower comments.

HIGH TUNNEL NEWSLETTER – ISSUE 3

The latest Northern New England Hugh Tunnel Newsletter is available. In this issue:
Spider mite and cucumber beetle management strategies, summer diseases, costs/benefits of exclusion netting, tissue testing, and report from Quebec tour. Use this link or click Resources on the High Tunnel Production Toolkit webpage at https://www.uvm.edu/~htunnel/

UPCOMING EVENTS

Today! Wednesday September 4, 4:00-6:00 pm. COVER CROP SEQUENCES TO SUPPORT POLLINATORS AND SOIL HEALTH. UVM Horticultural Research and Education Center, 65 Green Mountain Dr., South Burlington VT

Monday, September 16, 4-6 pm. HIGH TUNNEL TOMATOES, PUMPKINS AND SWEET CORN PRODUCTION. Drinkwine Produce, 1512 Street Rd, Ticonderoga, NY

Wednesday, September 18, 3:30-5:30 pm. BEST PRACTICES FOR ON-FARM MARKETS Walker Farm, 1190 US-5, East Dummerston, VT

Tuesday September 24, 4-6 pm. CLIMATE ADAPTATION AND SOIL HEALTH PRACTICES Evening Song Farm, 680 Shunpike Rd, Shrewsbury, VT

Complete listing with event details is at https://go.uvm.edu/2024farmworkshops