



Vermont Vegetable and Berry News – January 12, 2016
compiled by Vern Grubinger, University of Vermont Extension
(802) 257-7967 ext. 303, vernon.grubinger@uvm.edu
www.uvm.edu/vtvegandberry

REPORTS FROM THE FIELD

(Burlington) I have to like the warm weather as much as I hate it. It's hard not to enjoy picking Brussels sprouts, kale and spinach out of the field in a t-shirt in mid-December. Not to mention a comfortable start to the farm construction season. On the other hand, the skiing has been rough and the aphids are going like gangbusters in the tunnels. Trying to keep a lid on them with beneficials but it seems likely too late. Concluding, as others have done before, that baby Pac Choi is an aphid magnet. Incredible butternut crop this year for yield and storage. Other roots, cabbage, and such seem to be holding well. Winter CSA signup a little slower this year; it is harder to interest people in coming out to the farm without our usual complement of warm-season intangibles like PYO crops, green surroundings, and places for their kids to run.

(Hinesburg) 2015 got off to a slow start. The long cold winter reduced March and April hoop house production. June and July rains slowed things down, but the rest of the summer and four months of fall more than made up for it. Ended the season with sales 10% above last year.

(S. Strafford) I have taken your advice and have removed turf at the edge of blueberry rows, expanding the space at the base of each bush, adding compost and mulch on two-thirds of my planting. I'll be interested to see whether I can tell a difference in 2016 productivity between those that got done in 2015 and those that won't be done until 2016.

(Williston) I have spinach and kale in hoophouse now. I harvested the kale back in November and markets were good. I am starting to get regrowth on the kale as the days are getting longer (9 hours) and we had the spell of warm weather. I was able to drag out hoses the week of x-mas and did some watering. I did get some splash back/dirt on the spinach leaves from watering. Insect damage is very minimal. The rabbits took advantage one night as I had left the hoophouse door open and the voles/field mice have not been too bad yet. I harvested some spinach last week during the warm spell and hope to harvest the rest on the next sunny warm day. After that I will be waiting for the spinach/kale to reach harvestable size and keep an eye out for increased insect population. I have only had to cover the plants with Agribon 19 several times when the temps dipped down below 20 and once with a double layer on a single digit night. I am able to keep the upper vents open to decrease the condensation unless the winds are too strong.

(White River Junction) Seems like we've picked a good year to get started with winter greens, given the relative warmth and lack of snow. We have four houses planted, each 17 x 96, with spinach, kale, salanova, mesclun, bok choy and Asian greens. All have been producing well, with significant regrowth in the warmth of December. Moisture management seems to be the trickiest issue, and we had some downy mildew in the early going. Better management and Actinovate have brought us back on track. We'll see what the darker days of January have in store.

(Proctorsville) 2015 growing season yields were plentiful. Tomatoes, peppers, potatoes, and chard were the best performers by far. Yields were magnificent! Our biggest crop loss was Brussels sprouts. The sprouts did not form until very late even with lower leaf removal. Once sprouts were beginning to size up they became infested with aphids- a sort of grayish color, unlike the green ones typically seen in the high tunnel- cabbage aphids? It was a tough year for lettuce heads in the field as well, bolting was prevalent in most plants. Considerably low rainfall was a large factor. Spinach, cilantro, claytonia, and kale are currently still producing in the unseated high tunnel. This is our first winter growing trial and the warm weather has been beneficial. We noticed a green moss forming in the beds, but cutting back on watering and scraping off regularly seems to keep it under control. Doesn't seem to bother the crops. With these fresh greens and our stored potatoes, onions and garlic we have been able to have a winter farm stand about once a month since closing in October. A good start in my opinion!

(Elmore) We had a lot of snow, almost enough to cover the base of trees and plants wintering over in trenches. this was just before it got really cold, so we were relieved. this snow coming down now ought to keep things cozy for all the fruit trees and berries, as they can take cold temperatures like 25 below zero, but only with good snow cover- this is why we can grow somethings in the north that they can't grow further south without reliable snow cover. Still harvesting collard greens and kale from our unheated and not very tight high tunnel. The catalogs are arriving all colorful and promising, but I am still looking forward to a couple of more months of hibernation. Our goal in 2016 is to bring back some "sitting around time" (remember the old guys playing checkers in the park when we were kids?) Can't do everything all the time, it is too tiring! We want to remember that we are human be-ings and not human do-ings. the fruit trees and nut trees are so happy that it was not too cold a December and so are we. I just figure that last year it was way too cold for November and December, so this year the universe had a little compassion on us growers who have to be outside then.

(Plainfield) I had my best blueberry year-ever; my crop was 50% better than two years ago. I have been cutting out the witches' broom rather than removing plants. I mark the plants with survey tape to monitor. I spray the cut ends with a chlorine solution, and spray my clippers between cuts. I bag up the virus-infected plants in the field-and spray the cut end of the plant in the garbage bag with chlorine, just in case it wants to spread any virus. I throw them away; very, very far from my place. I started removing witches' broom a couple of years ago-and so far, have

not seen anything come back on those plants. I changed my pricing structure this year, so 90% of the people helped me to keep the place weed-free-and paid less. It works great. I even have people who like to remove the old raspberry canes. I planted another 400 feet of summer raspberries. I am moving away from fall raspberries. No sign of drosophila this year. In the spring, I give every blueberry Pro-holly, and raspberries got Pro-gro. I encourage taste-testing. Another change is that for the last full week of August, I donate the proceeds to local senior center, food shelf, etc. It was a good year, new systems: happy pickers, full bellies, full freezer. I had people from further away this year because the lower elevations got a late frost when the plants were blooming, and higher elevations got a lot more winter-kill. At 1,400 feet, with a western slope, my place drains the frost well.

(Northfield) We were late to seed and transplant into high tunnel but December sun and relative warmth caught us part-way up. 5/7ths of our winter plantings are spinach and we note that whereas in the past we had a few plants impacted by crown mite which we selectively pulled, we now have widespread presence but the plants do not seem drastically impacted. Not sure if we should avoid transplanting out spinach in our next round of planting into affected tunnels or just continue now with an acceptance of crown mite. Dryer vent covers over our outside air intakes for high tunnels bubble inflation are making life easier in light fluffy snowfalls. Screens are now harder to dust off on the rarer heavy hoar frost events that block the intake but we think the vent covers are also lessening likelihood of hoar frost build up. Grateful for ventilation capacity or our tunnel with ridge vent but continue to be frustrated with its performance shedding snow. Soon to open doors one cold night on the hoop house currently in oat cover crop to prepare for mid-February plantings. First time experimenting in this way and plan to use paper pot transplanter to plant starts right into the (hopefully) otherwise prepared beds of dead oats.

(Little Compton RI) 2015 was one of the toughest years we have ever faced. Down in our region the drought was down-right biblical and if it weren't for the fall rains and extra warm weather we would have ended the year in the red! As it turned out the fall Brassica crops performed very well except for Brussels sprouts, which again felt pressure from our growing problem with winter aphids. Don't know if we will be able to continue growing organic Brussels sprouts without some means of controlling this pest. It can be a very profitable crop but also very heavy inputs demanding. We had over fifty percent loss thus little profit. We tried opening up in-row spacing and got a new sprayer but results are the same. The only way we partially won the battle this year was to divide the crop over five different fields. Very early scouting is the only way to stay on top of these pests and spot spraying with an intensive combo of Pyganic, Asa Direct and M-Ppede. Where we put in the time we got results. In 2016 we are working with JSS to get a perennial wildflower that attracts aphid predators. It works in CA, which may mean nothing back east! Winter markets were slow but are now picking up a bit. No record breaking sales anymore. Crazy warm fall ramped up the green peach aphid in certain greenhouses and now we are forced to shut them down.

(Ange-Gardien, Quebec) Very mild winter here so far. I would have used air heating to prevent too much stress on spinach and mesclun still in greenhouse as it went from -1C to -25C the next night. It seems like there is no damage. So we basically wait until February to see that stuff grow again and are preparing for new season (management books, machines upgrade, sleeping/resting). Went back to school for three days - very interesting visits of few farms in Burlington area. Thanks to our hosts!

(Argyle NY-Pleasant Valley Farm) Editor's Note: if you want to list your farm name just let me know in your report...2015 ended up being a better than average year for our farm with production yields up and markets also up; we did more wholesale of surplus through local restaurants and a small local store. Biggest crop loss was fall carrots to Alternaria. Winter markets have been average but carrots impacted that result. Our greens supply has been phenomenal due to the warm fall/winter temps with kale, chard, Asian greens (some bolting!), spinach, arugula, salad mix, parsley (doing great in 2nd year of trials in high tunnel), and mustards in full supply. We just sold the last of our full-size lettuce heads. We opted for the first time to run emergency heat in the tunnels when the temp dropped drastically from 30's to single digits, due to the how lush the plants were. Now they have acclimated and we have not seen much damage (large Asian greens had some). The successive plantings really pay off with the unusual weather though we have had some disease (white mold and others) down under in the baby lettuce due to the plants getting too big. Venting all the time and fans going have helped. We have thought the white mold may have come from beans 2 years ago in that tunnel. Ah...rotation, rotation!

UPDATE FROM THE PLANT DIAGNOSTIC CLINIC – Ann Hazelrigg

The main veg problems we have been seeing in the Clinic are fungal (and fungal-like) diseases in spinach. Cladosporium, Stemphyllium and downy mildew all like cool, moist conditions so anything you can do to warm things up and dry them out will help. Dense plantings promote these diseases. Hot water treat spinach seeds for 25 min. in water at 122°F to be sure your seed starts free of all three diseases. After harvest, clean up all crop debris, incorporate residues and volunteer spinach into the soil to reduce the risk of inoculum overwintering on volunteers and infested residues. There are some fungicides available to help with management; check the current NE VEG Guide <https://nevegetable.org/crops/disease-control-21>.

Cladosporium causes small tan distinct leafspots. For pictures of the diseases see http://mtvernon.wsu.edu/path_team/spinach.htm. Although the most conducive environment for disease development is between 59° - 68°F and RH > 80%, the fungus can grow from 41° - 86°F. Spinach seeds carry the fungus, but it has not been determined whether the disease is transmitted via contaminated seed to soil or seedlings.

Cladosporium has been recovered from dried leaves and seed stocks up to eight years old. Cultural controls rely mainly on sanitation-the removal of infected plants, spinach debris and spinach volunteers. Start with certified, disease free seed or treat seed with hot water or bleach to reduce seed born inoculum. There are differences in cultivar susceptibility with 'Winter Bloomsdale' more resistant than 'Fall Green' and 'Ozarka'. Stemphyllium causes more diffuse lesions than Cladosporium, but you may often see both diseases present at the same time.

Details on the pathogen's life cycle are lacking, although the pathogen is seed borne. Cultural controls rely mainly on sanitation-the removal of infected plants, spinach debris, spinach volunteers, and unused seed. Start with certified, disease free seed or treat seed with hot water or bleach to reduce seedborne inoculum.

Downy mildew overwinters on dead spinach plants, old plant debris, and volunteer spinach and can be seedborne. There are lots of races of this pathogen so it is difficult to stay ahead of the disease through resistant cultivars although they are out there, it just depends on the race you have in your gh. Infections are systemic. Symptoms include pale yellowish spots with a gray to purple downy growth on leaf undersurfaces. Infections often grow together. Severely infected plants are stunted and can die. Downy mildew leaf infections can cause rot of infected leaves packed in bags.

If you are noticing stunted plants with curled/twisted leaves at the growing point, check for spinach crown mites. See <http://ipm.uconn.edu/documents/raw2/html/754.php?aid=754> for some good pictures and more info. Spot treating with Neem has worked for some growers. If you are in doubt with any of these spinach problems, we are happy to look at samples at the PDC, Jeffords Hall, 63 Carrigan Drive, UVM, Burlington, VT 05405.

BLUEBERRY GROWER IPM SURVEY

Heather Faubert at the Univ. of RI is working on a project to identify key pest management practices and needs of blueberry growers in the region. You can help by taking this IPM survey, which will take about 15 minutes: <https://survey.ncsu.edu/IPM/NEsmallfruit/>. Questions? Contact Heather at hfh@uri.edu or 401-874-2967.

SOIL FERTILITY MANAGEMENT FOR VEGETABLE GROWERS – TOMORROW!

Wednesday, January 13, Southwest Vermont Career Development Center, Bennington, 9:30am-3:00pm. Presenters: Becky Maden, UVM Extension & Singing Cedars Farmstead and Lisa MacDougall, Mighty Food Farm. Cost: \$25. Good soil fertility stewardship is a key aspect of profitable, environmentally sound vegetable farming. This practical workshop will cover how to interpret soil test results, calculate nutrient inputs and costs, source and apply amendments, and incorporate cover crops into your nutrient management plan.

Please bring your most recent soil tests so you can begin writing your own nutrient management plan! This workshop will be hands-on with plenty of time for questions and should be helpful to growers of all experience levels. Last minute registration contact Jen Miller, jen@rutlandfarmandfood.org.

VERMONT VEGETABLE AND BERRY GROWERS ASSOCIATION ANNUAL MEETING

Monday, Jan. 25 at Lake Morey Inn, Fairlee, VT. Register for the annual meeting by Jan. 22 and/or pay VVBGA membership dues on-line at: <http://2016vvbga.eventbrite.com>. Note that the VVBGA annual dues will increase from \$35 to \$45 per farm after Jan. 31.

NOFA-VT WINTER CONFERENCE

Feb. 13-15, 2016 at the University of Vermont, Burlington. Program and registration information is at: <http://nofavt.org/annual-events/winter-conference>.