



Vermont Vegetable and Berry News –April 1, 2019
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REPORTS FROM THE FELD

(Starksboro) Our snow finally started to melt this weekend! Spring CSA starts April 4, and the spinach is going gangbusters. We trialed a bunch of different early greens in unheated tunnels for this early CSA, all started in paper pots. They have done really well and we're loving the system for early greens (still unsure about it in the field). Tomatoes are getting planted out into the heated tunnel this week. Peaked in on overwintered Bridger onions and I'm cautiously optimistic that we can rely on the Bridgers for early season harvests, and plant summer onions later in the spring to try to avoid the maggots this year. Looking forward to a full snow melt to be able to do some tunnel repairs before things get nutty.

(Rochester) It's the last day of March and we have been unable to do a single task in the field yet. Snow throughout the blueberry planting is still about 12" deep in most places and even deeper where it has been blown into drifts. Our pruning window is bound to be narrower once we can get started so we will be aiming for speed from the outset. Speaking of speed, we have ordered a broadcast spreader with a side discharge deflector in the hope of spreading fertilizer faster and less messily than our current means, which is by hand.

(Burlington) Spring tunnel crops are booming. Much nicer transplanted spinach in the winter tunnels compared to last year. Went from 3 seeds/cell to 2 seeds/cell at 6" x 6" spacing, the only really significant difference. Variety trials are interesting, looking at lots of different DM resistant strains. 'Platypus' seems to be leading the pack, with the highest weight in both the transplanted and direct seeded trial. Dark green color, arrowhead shaped leaf, fairly smooth, quite upright. Curious to see when all the data is collected if we still agree.

Elsewhere, we are tightening up our tomato spacing quite a bit to 9" per leader from 12", based on data from last year's high tunnel nutrient management study coordinated by Vern. Still looking for that long-term, slow release source of organic-friendly potassium to keep our late season supply high without a lot of fertigating with soluble salts.

Cover crop survival looks pretty good, but the cool fall put a damper on our later season winter rye plantings, so they don't look like they'll provide nearly as much biomass as usual, and likely didn't soak up as much leftover N as I'd hoped, a reminder to get that rye planted sooner rather than later in the autumn!

(Dummerston) Everything down our way seems almost a week behind. Tried to dig into a compost pile to fertilize tunnels and it was like a concrete bunker. The thickest frozen crust we've ever had. Time to look into compost covers to keep the water out over the winter.

Late spinach growth and sales were strong but time to renovate greenhouses for tomatoes and bedding plants. Starting to get really well-parasitized oat aphids on the banker plants so troops are on the way. There was a shortage of banker plants earlier this year that put us behind in aphid control in the greenhouses for a while as biocontrols are in "high" demand with the cannabis growers. We're also adding more habitat plants to the mix to provide additional good bug barracks.

Lots of new varieties to try this year as we explore more finger food types of vegetables for those who can't chop up a head of lettuce or slice a tomato. Hit the lottery this fall when a good agricultural mechanic from California moved into town so equipment is smiling. Folks are calling to find out when we open. It must mean Spring is here. Looks like a good season. We're all going to be rich!

(Elmore) We have over 12 feet of snow in some places still. Trees and structures are down. Have not seen so much in quite a while in Elmore. Attempting to field graft some pears, I went down deep and the snow was up to my chest. Inside the high tunnel it was in the 80's. Not a lot of deer chewings this winter, or tracks. Maybe this is because I did not keep the deer fences up so they were not trying to prove their prowess. Weeds are up strong and green in the high tunnel. Everywhere else is quite dormant and all eyes are on the sun and the longer days.

(Westfield) It took a long time for the soil to thaw in the high tunnels but finally all beds are ready for transplanting and seeding. We started harvesting overwintering spinach and the direct seeding spinach is germinating. The nursery is full of seedling as this week we are starting to be in full swing, at least in the greenhouse. Still too much snow outside here in northern Vermont.

(Shrewsbury) This was our first winter heating the soil of one of the high tunnels we grow greens in, and we were happy with the faster growth rate through the winter keeping the soil at 45-50 degrees. The soil temperature has stayed in that range since the end of February without any supplemental heat, in total we used 4 tons of pellets to keep the soil temperature in that range for a 30' x 148' tunnel. When the greens harvest is finished I look forward to comparing harvest records for that tunnel and an unheated tunnel to see if it's worth the fuel expense.

I'm also happy with baby lettuce that was direct seeded in mid-October into beds of kale. The lettuce stayed small through the winter and is now ready to harvest as the kale flowers and is removed from the bed. Oversized onion sets planted in between spinach plants on November 1 are just ready to harvest as scallions as the spinach reaches maturity. In patches of our tunnel where we have a brief opening between winter green maturity and summer planting, we're seeding pea shoots directly in the soil to take advantage of a short window that wouldn't allow other greens to mature...this time of year the pea shoots can be seeded and harvested in about 3 weeks.

(Shelburne/S.Burlington) Finally the overwintered crops took off with the several weeks of strong, steady sun. Scallions look great, spinach is thriving, cilantro is great too. The overwintered Jake has rebounded but still is the weakest kale crop we've ever had. I think it's a variety of reasons, including the cold October and November, coupled with pests (symphylans and a few other critters), and some soil fertility issues. The newly seeded crops look strong and with focus on soil tests and a plan for this season and we hope to curb some of these challenges!

(Westminster West) April fools? Lost power last night, quickly arranged back up heat, of course it was in the basil house! Made it thru and we fixed the issue of a quirky circuit breaker that I couldn't deal with last night. Be prepared and instant payback on my Monnit temp sensor system! Finally used the long term high tunnel test with saturated media plus field soil test on my tunnels. Also did SMES on a bunch of potting mixes that we use. With Vern's help, put together a nice fertility package for two tunnels and gave myself confidence in the soil media we were using. Interesting that on a 2-year-old batch of compost based mix, the N amount was greatly reduced, even thought it was in a sealed bag.

We held a tomato grafting master class for my staff with old hand, Chance McNiff and the results have been stunning! We went from a 70% success rate last year to a 99% success rate this year! Attention to small details add up to big success!

Snow just left a few days ago from the garlic field and no sign yet of the garlic but maybe in a few days! Have a happy spring!

(Plainfield NH) Still too much mud and snow to initiate any field activities, but gratefully the driveways and greenhouse areas are clear. Two tomato houses planted and grafting continues, but with problems getting them to heal properly. About seven of us are full time planting perennials, transplanting ornamentals and field crops. Trying to rid the desk of food safety documentation as we ready for our upcoming inspection this summer.

Not a lot of interviews for folks looking to work in the field; the greenhouse and farmstand is covered by returning individuals. We are still working on providing housing for our H2A workers as we are adding two more for a total of 6 this year. Inventorying fertilizers, compost and pesticides on hand and organizing the areas where they should go. A partially rebuilt sprayer still sits in the shop from last October, but I am working my way through the overwintered projects and messes so that it is at least uncovered and visible.

(Argyle NY) Back in December we were prompted to buy a Farmers Friend high tunnel to help another farmer save on shipping. It went up last week to put transplants in like spinach and lettuce only because we were out of room in our 3 high tunnels. Due to the cloudy cool winter our crops are hanging in there longer, which has been great because the sales are there, but created a backlog for planting. Just when you think you have this down! So glad we bought the tunnel. Love having plan Bs.

White mold took out a bunch of lettuce in half of our 144' tunnel earlier but has stopped either because we applied Botrystop (active ingredient: *Ulocladium oudemansii*) or the weather has changed. It's a problem that is getting bigger every year. The disease was worse the half of the tunnel that doesn't get as hot when we steam the soil to control weeds. Apparently there are more soil pathogens where the soil did not get steamed as thoroughly.

Production from the tunnels has picked up tremendously compared to the doldrums of late January-early February. Aphids are the only insect pest so far. Ladybugs have been our best bet to manage those.

Storage crops are dwindling but a good variety keeps customers interested, hope to have a supply of the most popular ones until summer. The snow is gone and soils will dry this week to begin planting by midweek outside. Digging parsnips now...so sweet!

(Little Compton RI) We spent \$12k fencing in an 8-acre field to keep out deer. This winter we left parsnips and leeks in the fenced-in area for spring markets. Last week both crops were completely eaten down to the ground by over wintering geese! Next year, we will have to cover these crops with low tunnel hoops and some cheap bird netting. At this point deer and other large animals are causing 80% more losses than seasonal bug predation!

Two 18-year old tractors weren't running well last summer, and after exhausting all other causes, we finally pulled the fuel tanks and found large floating gobs of algae were causing problems when the fuel got low. Bottom line: if a diesel tractor is going to sit for five months put in a fuel-biocide that prevents algae growth. Another tip is to put in some "Power Service Diesel Fuel Supplement" every fill-up as an additive to help preserve your injectors and fuel pumps. The new low-sulfur diesel fuel doesn't have the same protective lubricants that the older fuel had.

Just got through Becky Sideman's research on potassium needs of GH tomatoes. Guess we have to up our potassium levels quite a bit.

UPDATE FROM THE UVM PLANT DIAGNOSTIC CLINIC

Ann Hazelrigg

Unless it is a root rot, most of the issues on young plants in tunnels this time of year are related to abiotic (non-infectious) issues. Root rot symptoms in the top part of the plant would include wilting during the day or falling over completely, poor stand establishment or leaf EDGE dieback. Root rots are quickly ruled out by looking the roots. They should be white and healthy with no sloughing off of outer root tissue. All the root rot pathogens like cool, wet conditions so using heat mats or keeping soils on the dry side, especially during cloudy cool weather is a good way to avoid the problem.

Common abiotic issues this time of year are: curling and twisting of young foliage, due to ethylene injury from a cracked or poorly ventilated heater, and white bleaching of leaves/whitish leaf spotting related to cold damage. When young transplants are put into cooler soils they often may show these types of bleaching/spotting symptoms even if the air temps have not been that cold. Either of these may have occurred when the affected leaves were just coming out, so if it looks like only one age of leaf is affected, it's likely an abiotic problem. With most abiotic problems, the plant should grow out of the damage pretty readily, especially with stronger sun and warmer temps. Always check out the new growth. If it looks good and vigorous, you don't have to worry. Fire off a picture if you are concerned and we can let you know if you should follow up with a sample. Send to ann.hazelrigg@uvm.edu

GREENHOUSE TOMATO COST OF PRODUCTION

In 2018, NOFA-VT worked with 9 organic farms in Vermont to track and analyze the cost of production of unheated greenhouse tomatoes. Results were aggregated and factsheets are now available that present the costs of production for slicing tomatoes and cherry tomatoes as well as an in-depth comparison of grafted vs. non-grafted tomato production. Visit the NOFA-VT website now to find these factsheets and to download a new workbook that can help you do your own analysis. And be sure to check back on Friday, April 5th to find the fourth and final factsheet focused on Rates of Work for producing unheated greenhouse tomatoes!
<https://nofavt.org/resources/cost-production-tomatoes>

WHEN TO UNCOVER STRAWBERRIES

Mary Conklin, University of Connecticut

Not yet...the time to uncover your strawberries is when you see new growth in the crown. That won't happen until the soil temperature is 45F or above. Check several locations in the field for newly emerging growth near the crown. Don't assume all varieties are going to begin growing at the same time. Early varieties may be growing while later ones aren't so they should have the mulch left on. Be prepared to recover if nights are going to be at or below freezing. Leaving the mulch on once plants are growing has the potential of reducing crop yield. Tunnel berries should have the mulch or row covers removed and the irrigation should be on, they are growing rapidly.

VERMONT PESTICIDE APPLICATOR TRAINING AND CORE EXAM

Review of the Northeast CORE Manual followed by the VT Applicator CORE Exam will be offered on April 23, White River Junction or April 24, Burlington, from 9-4 each day. This review is for anyone in Vermont who uses, supervises, recommends, or sells pesticides and/or trains workers. All farmers that apply pesticides of any kind and have employees should obtain their pesticide applicator license.

Registration fee is \$30; after April 9, Late Registration is \$40.

Register for WRJ at: <https://www.regonline.com/2019initialcertwhiteriverjct>

Register for Burlington at: <https://www.regonline.com/2019initialcertburlington>