



## **Vermont Vegetable and Berry News – March 27, 2017**

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### **REPORTS FROM THE FIELD**

(Burlington) Brrr. We are burning lots of biomass and propane to keep things warm. The cracking firebox on our well-used LDJ biomass furnace was saved for more service with some firebrick, kiln shelf, and lots of refractory cement later last spring, and I'm appreciating we were able to repair it with how cold it has been. Also found out using a PAR (plant light) meter that our propagation house poly is overdue for a change, down to 60% of outdoor light transmission. Too late, alas, to change it for this year, but at least from here forward I can put it on my device calendar to remind me.

Otherwise, it is great to see the spinach and baby lettuce take off with increasing day length. Hoping snow will melt soon so I can get out to frost seed red clover into the winter rye plots we plan on holding in green manure for the year, though I'd like to get a bit more skiing in as well.

(Benson) Winter sales have been strong at our fantastic farmers' market at the Vermont Farmers Food Center in Rutland and wholesale has been good too. Winter greens production has been very good this winter with the radiant heat system helping to keep soil temps at or above 50 degrees most of the time. I learn so much every year about winter greens production. Every time I think I have it figured out, I am reminded how much I don't know.

The root cellar and walk-in-coolers look pretty empty these days; it seems to happen suddenly. We draw from them each week for the Saturday market and pull 20 or 30 lbs. of various roots for multiple wholesale accounts each week. It never seems like we're removing much then suddenly it seems everything is almost gone. We are mostly on schedule for March seeding, spending lots of time and money on tractor maintenance, and wishing for more sun.

(Orwell) We are fortunate to have a really kind propane dealer; when we checked our greenhouse tank at the beginning of the big storm, it had dropped to 15% due to frigid weekend temps.

We crossed our fingers and called Fyles Bros to see if they just might want to brave a steep hill, blinding snow, and a barely plowed 1/3 mile-long driveway. Turns out someone was up for the adventure, because they came and got us through the storm.

Tomato grafting is underway, although every year we struggle to time the scion and rootstock size perfectly. Staggering several seeding dates seems to be our best strategy. We will do some side grafting as we are losing the window for top grafting some of the plants. Hooked up a radiant system for the benches in our propagating house that has been one of those years-long unfinished projects, and it is working wonderfully. On the urgent/overdue list is taking hoophouse soil tests, ordering amendments, and getting them incorporated a couple of weeks before the plants are ready to go in the ground.

(Hinesburg) Harvesting overwintered spinach, kale, and now claytonia from hoop houses. So far we had better, more consistent yields in February than in March. Zero-degree temperatures damaged some spinach this month. In other years the spinach has been undamaged in colder weather. I think the difference is the plant was dormant during those colder periods, but warm February temps this year stimulated some fresh lush growth that wasn't ready for the cold snap. Beet and spinach seedlings germinating in unheated seedling hoop house.

(Rochester) Our efforts to knock back Fusicoccum and Phomopsis in the Jersey and Blue Crop blueberries last spring seem to have succeeded, with excellent new growth and bud formation in those varieties.

(Brookfield) At 1400 ft. elevation we still have 12 inches of snow still on fields. We are direct seeding and transplanting into unheated hoop houses.

(Elmore) Thought we would begin planting the high tunnel, grafting and propagating cuttings last Friday, instead it was like we were inside one of those shakeup snow domes. I cannot believe we still have 3 to 4 foot drifts in our fields. On the other hand, lilacs are showing green swelling buds due to strong sunlight and some warm days. We have banked our potted perennials with spelt straw and hope they will fare better than after last winter. For the first time we wintered-over peach trees and quince trees in pots in our high tunnel using mounds of potting mix rather than outside in trenches, and their twigs and buds look a lot better than usual. Now the trick is not to cook them on these new sunny warm days. Being a grower is being a dancer.

(Westfield) Greenhouses are ready to get some seeding and planting just waiting for a little warmer, hopefully this coming week. A lot of seeding done in flats for the bedding plants. Plans for the season are done just hope everything will fall in place.

(Shelburne/South Burlington) Here at Bread & Butter Farm the challenge has not been a cold winter, but the wildly swinging temperatures throughout February and March. This can really hit the overwintered crops hard. Our spinach and kales/brassicas have actually held up well despite those swings. The salanova (we didn't have too much planted) didn't like it as well. Our rainbow chard overwintered the best it has in 7 years! And now, with steady sunny days, is coming back strong.

We are direct seeding and beginning transplanting this week. We have had to hold off on transplanting longer than we like because of the random dips down to the single digits over the last few weeks, despite the rest of the week being easily warm enough for transplants. Hardening off the Jan/Feb seeded transplants always is the toughest. Our farm crew is locked in and ready for the season to begin and we are just soaking up a few last weeks of relative calm before the busy-ness of the growing and grazing season is upon us!

(Argyle NY) Pleasant Valley Farm. The wild swings in temperature have made it a challenge but the abundant sunshine has mitigated the problems and our greens production in the three tunnels have been amazingly high this whole winter. We have not seen any new problems with downy mildew on the spinach since spraying Double Nickel and Actinovate, but we had a disease issue on some arugula with small spots which we have never seen before; however, we cut it down and the new leaves are fine. The crew has been pruning blueberries and the orchard on the warmer days.

We are starting to run out of some root cellar crops as markets have been strong. Overwintered onion plants in the small tunnel (14'x100') are the largest we have seen this time of year and all tunnels need constant irrigating. Many new transplants have been set in the tunnels as arugula and Asian greens have gone by: salanova lettuces, head lettuce, spinach, broccoli raab, and broccolini (Happy Rich). Direct seedings of radishes and arugula have been done over the past few weeks and we hope we can get on the fields by April 1st to plant peas!

(Plainfield NH) Greenhouse tomatoes going in the ground and seeding things for the field. Ornamental houses in full swing. Pest numbers in our year round prop house in check (for the moment) but that may have as much to do with the grey and cold weather. Some aphids, whiteflies and thrips being imported from other nurseries.

We find it annoying to find them on incoming cuttings, but I think that we have to give these bigger propagators some slack, because most now are really trying to utilize biological control in their systems, and those of us that practice it know that it is not perfect.

Bitter cold has curtailed doing anything outside recently such as pruning blueberries and peaches or cutting firewood. I had diesel fuel actually gel up last Wednesday, a first ever for me in March. Still wrestling with crop planning and interviewing for the upcoming season.

(Little Compton RI) Transitioning from winter greens to GH tomatoes. In most cases it was Brassicas going to seed that started the transition decisions, but when we got deep and personal with plant removal we found we were on the verge of a massive aphid explosion. Think we got them all but will have to be vigilant with the new tomatoes. Our goal is to use 80% vegetable forms of nitrogen going forward. We are using alfalfa meal and a starter touch of blood meal under plants, in the hole.

Tough year with timing of Maxiforts rootstocks and scions. Next go round may work less vigorous root stocks as many Maxifort trays seemed to get too large to use overnight! I suspect that leaving them on bottom heat too long after their second true leaf may set in motion a growth that just won't slow after bottom heat is removed.

Winter markets still good and rewarding for those that have greens of any kind. We tried seedling kale in late November into mid-December hoping for a great late-spring flush of kale but it all started going to seed about two weeks ago, and now we can't get rid of it fast enough as the stems are getting inedible. Overwintering English bunching broccoli is looking good. The stems of these guys don't seem to be prone to kale's lignin problem.

(Stanfordville NY) I don't do much farm-wise during the winter, so here's to really getting going soon! The greenhouse space I'm borrowing is filling up and I'm going to fill up my cold frames with trays to harden off this week while there's still 5 to 6 inches of snow on the ground. I'm hoping the sun breaks out and gets things melted, or else I'll be out there with a shovel clearing out beds. Thank goodness for permanent beds; I have a couple that are ready to plant in!

I've discovered I have to up my anti-algae game in the GH. Slow germinating seeds and bare soil don't go well together, must cover everything lightly with vermiculite. I'm trying some new herbs and edible flowers: papalo, hyacinth beans, lemon mint. So far the papalo is germinating much better than I was led to believe.

Farm neighbor down the road has discovered first aphids of this season in hoophouse spinach. He's planning on pulling them all (they were just about done anyway), flaming the beds and putting in the tomatoes, etc. in a few weeks. This week my tasks are to move the mountains of wood chips, and to construct at least 10 vole trap boxes. I'm guessing there are whole villages of hungry voles hiding under my ground cloth covered areas.

## **PRECOOLING AND CURING PROJECT**

Ever wonder...why does winter squash get moldy even when kept at the right storage conditions? Why does garlic dry out in storage? Can the storage life of onions be improved with curing? Can the shelf life of greens be better with precooling? How can produce on the inside of the harvest bin be cooled more quickly?

Chris Callahan (UVM) and Robert Hadad (Cornell) have a Northeast SARE grant to work with farmers to improve post-harvest practices through research, collection and demonstration of best practices for precooling and curing vegetable crops. (See: <http://go.uvm.edu/precoolcure>) Growers will be actively involved in designing and testing new and improved systems, and they want to hear from you. The first step is a survey to help understand current practices and challenges, please provide your perspective at: <https://goo.gl/forms/cA7wQwtSA3n6Dqug2> Thanks, in advance, for your help. Chris at [Chris.Callahan@uvm.edu](mailto:Chris.Callahan@uvm.edu), 802-447-7582 x256.

## **NUTRIENT MANAGEMENT UPDATES**

New nutrient management resources are available on the Vermont Vegetable and Berry Growers website, including a worksheet detailing fertilizer nutrient content and the cost per pound of nutrients, a fertilizer calculator you can use to input your soil test results then create a whole farm amendment plan, and a list of sources for purchasing soil amendments locally. Check out this page: <http://www.uvm.edu/vtvegandberry/NMPlinks.html>. If you'd like support using these resources, or if you have feedback, please contact [Rebecca.Maden@uvm.edu](mailto:Rebecca.Maden@uvm.edu).

**SUMMARY OF WHAT THE NEW 'RAPS' REGULATION MEANS FOR VEGETABLE GROWERS:**  
[http://www.uvm.edu/vtvegandberry/factsheets/RAPs\\_Summary\\_Vegetable\\_Growers3-1-17.pdf](http://www.uvm.edu/vtvegandberry/factsheets/RAPs_Summary_Vegetable_Growers3-1-17.pdf)

**TECHNICAL TIP: USE HIGH QUALITY THERMOSTATS IN YOUR GREENHOUSES:**  
<http://blog.uvm.edu/cwcallah/2016/05/03/thermostats-for-agriculture/>

## **TECHNICAL TIP: TESTING GREENHOUSE/TUNNEL SOILS**

In established tunnels with relatively high organic matter (compared to the field) it is helpful to use the Saturated Media Extract (SME) test, as well as the regular field soil test (modified Morgan's extract.) The SME test measures water-soluble, immediately available nutrients and the field soil test measures nutrients in reserve. Both tests measure soil pH, but the SME test results also include soluble salts and available N which are important measures for greenhouse soils and potting mixes.

To do the SME test make sure your mix or soil has been moist and warm (room temperature) for at least a week. Send a pint (not a cup as for field soil test) to the soil test lab. The UMaine soil test lab runs both these tests for \$22, calling it the "long-term high tunnel test." See: <http://anlab.umesci.maine.edu/>

UMass offers the SME (soilless media) test for \$15 but be sure to request organic matter for \$6 more.

<https://ag.umass.edu/services/soil-plant-nutrient-testing-laboratory/ordering-information-forms>.

Other labs offer the SME and modified Morgan's field test, too. I can help you with interpreting the results but please don't wait till the last minute :)

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<http://www.uvm.edu/vtvegandberry/newsletter/datenavbar.htm>