



Vermont Vegetable and Berry News – March 3, 2020
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VVBGA LISTSERV PURGE TO BEGIN

As of March 14, non-members will be removed from the VVBGA listserv. To renew for 2020, go to <https://2020vvbga.eventbrite.com>, or send a check for \$70 to VVBGA, PO Box 66, Barton, VT 05822-0066.

REPORTS FROM THE FIELD

(S. Burlington/Shelburne) Our tunnels are starting to pick up; putting down a lot of water (more than usual this year) has been the key to getting them going again. I hadn't realized how dry they had become, given it has been so relatively mild most of this winter.

We are gearing up with our spring/summer transplants and doing our annual soil testing and plans for how to maintain our tunnels for another year. We are challenged with rising pH in our high tunnels and not totally sure how to combat this issue.

Still dealing with repairing slashes in our plastic on two of our houses from that ice storm a while back. Thanks for all the suggestions about how you all fix double inflated tears! What a pain!

(Guildhall) Bulk potato sales start this week, prices will be \$10-\$15 cwt depending on grade out at the plant. Potatoes are storing well, no sprouting (knock on wood). We've had to heat the barn 3 times this past month with outdoor overnight temps going -20 to -26 degrees several times. 2020 crop plan is written. We're taking pre-orders for potatoes pumpkins and winter squash.

We had a visit from Deputy Secretary Alyson Eastman and Ag Development Section Chief Laura Ginsburg this month, toured the farm and discussed our packing facility plans. They had a lot of suggestions about available grants and loans to help get that project done. We've been filling out grant applications, but I've never done that kind of thing, so we'll see if it works.

(Huntington) A week or so out from firing up our propagation greenhouse, I hope the mild weather continues, as there's nothing like heating a GH when the nighttime air drops below 0. It's definitely been mild this winter, as one shallow waterline to an outbuilding almost always freezes up by February, yet has flowed freely this winter. Hoping to get that GH re-skinned later this week in anticipation.

To follow Jake Guest's lead in recommending general farm devices, I want to put in a plug for snow pushers, like you see on large wheel loaders in the parking lot at Home Depot (you can get ones small enough to work on a 40 hp tractor). They do not swivel side-to-side, and gather all the snow in front of the pusher rather than having it spill off to a side. If your primary snow plowing is a long driveway, then an angle plow, back blade, or snowblower is better, but if you have parking areas or a lot of open surfaces I can't recommend a snow pusher enough. We have ours on a front 3-point hitch, and the pusher's skids allow it to just float over the ground and not gouge downward. It's made plowing almost kind of fun.

(Shrewsbury) Our tunnel greens had a good winter and we've been delighted to have an additional tunnel this winter to help meet market demand. Our biggest challenges are grey mold on lettuce, and white mold that is beginning to pop up in one of our tunnels on mustard greens and spinach. The white mold isn't a big yield reducing problem right now, but I worry about it becoming a bigger factor over time.

Our part time winter crew is just about right for winter work, and our summer crew is now full. We're lucky to have enough employees for the summer, but it's only by patching together some folks who are able to work part time. It's not ideal for the increase in work on our end that goes into training, communication, and accounting, but it's far better than being shorthanded.

This time of year I'm excited to be planning some trial areas for no-till production using techniques including rolled and tarped cover crop mulches, weed-free compost as mulch, and tarping of quick-turnover crops. It's been inspiring to learn from farms who have had success managing these techniques well while reducing or eliminating tillage, and to see the results of improved soil structure and reduction in weed seedbank. After seeing declining soil structure and increased annual weed pressure from 8 years of tillage on our land, I'm looking forward to trying to manage some small areas well with significant tillage reduction, and getting some perspective on how we might improve and expand those practices.

(Shaftsbury) Spinach, collards, and kale putting on nice growth. Irrigated winter greens for the first time since November around Feb. 25. Direct seeded baby lettuce, kale, mustards, radishes, and turnips all up, looking AOK, and holding on through some cold nights. Keeping one direct seeded house heated at 35 degrees. One prop house going with flats of early greens and flowering bulbs. We start onions and leeks next week and a second round of tunnel spring greens for transplanting.

Loan and grant all set for two new walk-in coolers in the pack house. We've been running five cool-bot coolers for 12 years. An actual compressor and someone willing to come and fix it will be a welcome change.

Annual 'pre-season' crew meeting happened on Feb. 29. Crop plan summary was accepted and we talked about ideas to make things run smoother, with plans of action. Ideas ranged from better field grading on parsnips to more Facebook sponsored ads for CSA sign ups, and not being over-zealous with storage cabbage plantings ;).

Our farm marketing meeting is this week, we'll cover changes for our farmers' market booth displays, collaborating with other local businesses for mutual advertising, and local wholesale outreach. The crew seems to like these meetings and it gets them thinking about all aspects of the farm business. One more interview this week and field crew will be full for the season.

The wind last week was brutal. I've been using 70# bags of tube sand (\$6 each at a hardware store) to weigh the ends of the roll-up edges that stick out. Works like a charm. Since the intensity of wind storms is increasing, I am planning on planting wind breaks this spring. Lots of great information on wind-breaks on extension websites in the mid-west, like:

<https://mdc.mo.gov/property/agriculture/windbreaks>

(Westminster) You can never tell, of course, but we're looking forward to an early spring, or at least an early start in the fields: not much snow and not much frost in the ground. Our Winter Market is doing great. We're still cutting plenty of greens from our hoopouses, although our winter kale crop was dismal. We're also looking forward to a new wash/pack line for root crops, which will make us more efficient, help us meet FSMA standards and can be available for other area farms, as well.

On another, less optimistic note, this year's 8 percent increase in mandated wages for our H-2A workers (and therefore for all our workers) means it will be ever more difficult to make it profitable to grow food.

(Orwell) Harvesting a nice flush of winter greens, suddenly in a bit of a hurry to get tunnels prepared for summer crops. Interestingly, salanova fared better in an unheated tunnel with a single layer of row cover than in a minimally heated tunnel in raised beds; lost less to bottom rot.

Meetings with local buyers get us excited and nervous about possibilities and commitments for the coming season. We are worried about labor this season with the closing of Green Mountain College, which has supplied a steady stream of young farmers excited to learn. Not sure if we should lean more heavily on the local high school population, or piece together with part time adults (or just work harder ourselves!).

Fired up the propagation house after a month of lights and racks inside our house. Realizing how much space we'd really need to get everything started indoors--is it worth investing in more lights to stretch our time indoors another few weeks, or just heat the prop house while it is still cold out? In either case, it's nice to smell the soil, plant the seeds, and feel the tug of attentive vigilance to keep things alive, healthy, and growing.

(Burlington) Mild and sunny winters sure show up in the tunnel crops. Spinach is fast approaching runaway growth, and the lettuce came through the winter with very little cold damage. Things are actually green again. I'm really looking forward to our second cut red Russian kale this spring, complete with delicate and delicious flower buds; our CSA members will be so happy.

The paperpot transplanter seems like it has some real benefits in getting lots of spinach transplants closer together than we'd ever consider hand transplanting; we are thinking about going to a 2" x 6" spacing next year, after hand transplanting on a 6" x 6" grid.

Storage crops are holding well, reminding me that all of our investments in high quality storage infrastructure really do make a difference, and also reinforcing that a warmer, drier autumn also makes a huge difference, excellent storage notwithstanding.

After having poor establishment of our tunnel cucumber transplants the second week of May we are going to try to raise the soil temps with clear poly laid on the soil surface a couple of week prior to planting, with the hope that higher soil temperatures will reduce our problems.

I am really appreciating the good work of breeders out there working on high performing and delicious tunnel tomatoes; one of these days I am going to love growing and eating the same tomato cultivar!

(Dummerston) Still lots of carrots and parsnips in the root cellar, hoping to sell them soon. The carrots don't seem to be holding up as well as usual, though, and require a lot of sorting. Maybe they were too wet going into the bags.

In the high tunnels it's been a good winter for greens but I'm starting to see the same problems as usual this time of year. Spinach is running out of N, pathways filling with water due to rain and snowmelt, cyclamen mites in the spinach, rodents eating spinach. So far it's all manageable with neem, snap traps and fertilizer but I am wondering about ways to prevent these things. Of course, it would help to keep the water out but that's easier said than done.

CSA sign ups a little slow for the beginning of March but hopefully will pick up as the weather warms. I'm excited to be starting seedlings for the coming growing season and for our upcoming spring greens CSA.

(Pownal) Has been too cold for us to do blackberry pruning, that still needs attention. With warmer temperatures, and if wind stops, we will get on this. Also need to plow and till a spot for 200 new raspberries for spring planting. Planted 100 last spring, so will have raspberries for sale in another year or so. Will make the new rows wide enough for spreading mulch/chops with JD Gator, no more wheelbarrow.

Spring blueberry work will be re-mulching all 500 bushes with fresh mulch/chips that has been setting for over a year. This is a pretty big task and lots of labor hours. Then on to the pumpkins and flower gardens along with corn and potatoes. So hoping the weather breaks.

(Argyle NY) Winter tunnels are picking up in production finally, and the first Asian greens are starting to bolt, so we will pick all leaves and begin selling the tops as florets. Irrigation is becoming more frequent, and there is no sign of aphids yet. New crops are being transplanted in.

More parsnips will be harvested out of the field this week and a few of our 30+ root crops have varying amounts left, with cabbage, potatoes, radishes, and carrots still very plentiful and storing well. We will start on the Burgundy sweet potatoes in less than 2 weeks, with Covington waning.

Our greenhouse was just renovated with a cement floor, 2 new shed bays are under construction, and a cool room is being planned next.

Our farm is blessed with a stable crew due to our decision to go year-round in 2006. As we strive to continue teaching and training new young farmers, and reduce our work load, we are searching for the right candidates to join our team this year.

(Little Compton RI) One is never too old to learn a big lesson in farming. We bought a cab tractor and some mice got into the flooring electrical raceway under the seat and ate a \$5,000 wire harness! We have since heard of other mice damage from other farmers. This is also a big problem in the RV industry and they recommended two items we are using: Cheap fabric softener sheets (Vanilla/Lavender from the supermarket) and Fresh Cab Botanical Rodent Repellent (from Amazon), pouches you can put in the electrical raceways.

Another suggestion is to disconnect batteries for winter storage. This gives you an opportunity to put a desulfator/charger on the battery to keep it healthy, and we have heard mice are attracted to wires that have an electrical charge! So, disconnecting batteries helps.

On the vegetable front, grafting is going well. Looking to figure out how to keep winter squash longer into the winter. One farm at our winter market has the best looking butternut I have ever seen; he washes them clean after curing and then sends them through a spray of Oxidate.

Aphids showing up in hot spots in tunnels but manageable. Just planted moveable tunnels with spring carrots. Canada geese ate three acres of beautiful cover crops when we took a trip south. Now applying for Federal permit to hunt them.

LAST CALL TO JOIN HIGH TUNNEL TOMATO SOIL FERTILITY PROJECT

We invite growers in Vermont and nearby states to participate in a 2-year study to improve our understanding of the fertility needs of high tunnel tomatoes grown in the ground.

The project will pay for soil tests at the UMaine lab and provide customized fertilizer recommendations for your tunnel(s). Growers must agree to grow at least one bed of red, indeterminate slicing tomatoes, follow the soil test recommendations, and track yields. If interested, please contact Becky Maden with questions or to sign up (802) 773.3349 x 277 or rebecca.maden@uvm.edu.

TUNNEL SPINACH UPDATES

Ann Hazelrigg, UVM Plant Diagnostic Clinic

We're seeing a lot of leaf edge scorch on high tunnel/row covered spinach. Anytime you see a clear definition between brown/dead tissue right next to green and healthy, it is usually abiotic. We chalk it up to either earlier cold damage, or a scorch issue with bright sun/warm temps. The older leaves were likely the cold injury; new leaves would probably be the latter.

Several samples of spinach crown mite have come in. These teeny arthropods feed way down in the center of the crown and are very hard to see without a dissecting scope. They cause stunting and leaf curl typically in late winter/early spring. We don't see them much when the weather is warmer or if the plants are outside because the spinach is growing faster and can 'outrun' the damage. The damage is generally associated with soils that are high in organic matter and cool, wet conditions. Cleaning up the crop when it is finished may help reduce mite populations. Effectiveness of rotations with non-host crops is unknown. Spot treating with azadirachtin should work. See <https://plant-pest-advisory.rutgers.edu/might-be-mites/>

Also saw one symphylan in a spinach sample that had crown mite. Mature symphylans are white, slightly less than 1/4-inch in length, with 12 pairs of legs and a pair of long-beaded antennae. Their entire life is spent in the soil. Their life span is probably 1 to 2 years. <https://ento.psu.edu/extension/factsheets/garden-symphylan-as-a-pest-of-field-crops>

These pests can build up in high organic matter soils and feed mainly on decaying organic matter but they can feed on roots and cause damage and stunting of plants. Not sure if this will work in tunnels, but the Penn State info said to test for symphylans in the field by turning over at least 10 shovels of soil with the threshold for a problem would be 1 symphylan/shovel. An Oregon State study cited here suggested baiting with potato slices, covering and checking 24-36 hrs later and counting symphylans. A total of 75/slice would indicate substantial damage. This was used in garden soils. <https://www2.ipm.ucanr.edu/agriculture/lettuce/Garden-Symphylans/>

Saw Cladosporium on Flamingo spinach at a Midwest vegetable meeting. This fungus starts out as small tan leaf spots then develops a greenish sporulation in the center of the spot. We usually see it at the end of winter when temps are cool and row covers are going on and off and condensation builds up. Usually, reducing humidity is the best thing to reduce the disease. The disease can be seed borne so hot water seed treatment may help. Fungicides are usually not that effective.

One grower sent pics of downy mildew infected spinach, cultivar Verdil. Yellowing on the tops of the leaves with brown/purple sporulation under the leaf. Be sure to look at both sides of the leaf when you suspect a problem. <https://ag.umass.edu/vegetable/fact-sheets/spinach-downy-mildew>. A sample is being sent to be race typed. Let us know if you see any more and we can report it to Meg McGrath, Cornell, since she is keeping track. Also, send pics or samples to the Plant Diagnostic Clinic or ann.hazelrigg@uvm.edu <https://www.uvm.edu/extension/pdc>

UVM EXTENSION AG ENGINEERING UPDATE

We've published a new blog post titled: Planning an Efficient and Safe Wash/Pack Area. This post summarizes the things to consider when thinking about your wash/pack design. <http://go.uvm.edu/washpackplan>

Listen on your phone, or from your computer, to the latest episodes of the Ag Engineering Podcast at <https://www.agengpodcast.com>

- No-Till, Hillside, Off-grid, Market Farming
- Success in Adding Hemp to a Diversified Vegetable & Berry Farm
- DIY Cat Tunnels and Use in the Winter
- Greenhouse Sensors on the Cheap

SAFFRON PRODUCTION AND MARKETING WORKSHOP

Thursday, March 12, 2020 in Burlington, VT

The North American Center for Saffron Research and Development at the University of Vermont (UVM) is hosting the 4th annual workshop on Saffron production and marketing on Saffron is the most expensive spice in the world, with a retail price of over \$5,000/lb. It is made from the stigmas of a fall-blooming crocus flower (*Crocus sativus*), and is used as a culinary spice, coloring agent and medicinal herb. Saffron is a high-value crop that could significantly strengthen sustainable agriculture, and preserve the rural working landscapes of North America.

Since 2015, UVM scientists have been studying the cultivation of saffron in protected environments and in open fields. They have obtained yields greater than what is reported in traditional saffron-growing areas of Asia and Europe. Hundreds of farmers across the US are now growing saffron with great success, and they are eager to learn more.

Saffron experts from Vermont and Rhode Island, and growers from Vermont and Maine will share their knowledge on production. Specialists will speak about post-harvest handling regulations and a cancer specialist will discuss saffron medicinal properties. Both on-site and on-line registration options are available. To learn more about the workshop and to register, go to the UVM saffron website at: <https://www.uvm.edu/~saffron/> or contact Margaret Skinner: 802-656-5440, miskinner@uvm.edu

CLEANING, SANITIZING AND HYGIENE DESIGN WORKSHOP

April 15, Troy, NY

The Institute for Food Safety at Cornell University, the University of Vermont and Cornell Cooperative Extension's Eastern NY Commercial Horticulture Program are hosting a workshop on Cleaning, Sanitizing and Hygienic Design at Engel's Acres (445 Brunswick Rd) in Troy, NY. This one-day workshop will include: A brief review of produce safety; Presentations focused on cleaning, sanitizing and drying best practices; An introduction to hygienic design principles; Several hands on exercises to reinforce cleaning, sanitizing and hygienic design concepts.

The course is subsidized by several state and federal grants and is being offered at a reduced cost of \$50 per participant. We will provide lunch as well as several resources related to the topics reviewed during the workshop. Registration is limited to 30 participants. The deadline to register for the course is April 8. Register online at <https://enych.cce.cornell.edu/event.php?id=1386>

UVM GRADUATE STUDENT RESEARCH ON FARMING VS. GARDENING

Do you have experience producing vegetables both commercially and non-commercially? A research project comparing market and non-market vegetable production is looking for individuals who have experience in both, and are willing to be interviewed about it. Maybe you used to garden and now work on a farm, or vice versa. The idea is to learn about how practices and values differ in these two types of systems, from people who have grown in both. If you are interested in participating, have questions, or want to learn more about this study, contact Sam Bliss at sambliss@gmail.com or (206) 280-3194.