



Vermont Vegetable and Berry News –March 12, 2018
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REPORTS FROM THE FIELD

(Shrewsbury) This has been a good year for overwintering greens in our unheated tunnels, with the lowest mortality we've seen from cold, and the absence of significant pest and disease pressure. We added a 4th layer of row cover to make it through the early January cold, a mix of AG-30 and Typar 158. We're pleased with an experiment in which we planted oversize onion sets November 1 in between rows of high tunnel spinach. Right now they're not quite scallion size, we'll plan to harvest scallions in 2-3 weeks and hopefully finish right around the time that our spinach is done in mid-April.

We recently purchased a used pellet boiler and are looking forward to getting one of our tunnels set up with air heat and in-ground heat...it will take a little learning to see how winter production can be maximized with some extra heat in the soil.

(Proctorsville) Here at Little Village Farm in Southernish VT, our tunnels are starting to wake up! The louvers have even opened a few times over the past couple of weeks, which means it reached ~70F in there! Bed prep has begun and weeds have already been pulled. Our baby dinosaur kale in one bed survived the subzero temperatures, thanks to an extra row cover. The fields, however, are covered in snow and we're looking at getting another 8" this week! Gotta love winter in New England. Additionally, our seedlings are growing tall and strong and it's been nice to play in the dirt during the past few wintery weeks.

(Saratoga Springs NY) Green Jeans Market Farm. Seeding spinach, kale and other greens. Getting prepared for my first season and trying to think of everything! Will transplant what I can as soon as I can in my tunnel. If there's a thaw and my tarps get some heat, I'll plant outside some frost tolerant crops too. Seeding in unheated greenhouse using heat mats and row covers to start what I can for transplanting as early as possible, hoping to have a good variety of offerings for this May's farmers' markets.

(Plainfield NH) Like everybody else, we were hit with the storm this past week, 18" of heavy wet stuff. We opted to turn the furnaces on to melt falling snow off the covered houses, and we were glad we did when we got up the next morning. The day before the storm a contractor arrived with lumber to start our new storage and wash barn. They wallowed around the yard, and trucks with rooted cuttings for the ornamental greenhouses also arrived, adding to the mess. The upside of the storm is that it covered the strawberries back up and insures dormancy, as we were at bare ground before the storm.

It has been inordinately grey here and greenhouse plants definitely respond when the sun does come out. We are busy seeding onions, which is a pretty good crop for us. We are hoping to move towards singulated transplants that will be transplanted directly into the soil and move away from plastic. The weak link-and a real concern for us is timely cultivation. Being conventional, we do have herbicides as a back-up, but we are trying to reduce their use, improve nutrient supply with the ability to sidedress, and we believe that we can literally cut our transplant time by 80-90% on our 1.5 - 2 acres by avoiding the waterwheel transplanter and plastic.

Tomatoes will go into ground in the greenhouses this week, and peppers for pak sales as well as the field will be seeded end of the week. Getting the pest pressure under control in the propagation houses using beneficial insects. No whiteflies or thrips, a couple of foxglove aphids hiding about, and hopefully the curve is downward on two spotted mites. If not controlled, the stronger sun and warming temps later in March and April will bring them out.

(Newburyport MA) Arrowhead Farm. Peas, fava beans, and spinach direct seeded in field February 28, earliest planting date ever. Dry soil tilled up very nicely for seeding, but now under 6" heavy, wet snow. They'll be fine though. Cherry tomato, celery, chard, head lettuce, beet, snap peas, green, yellow and purple bean mix, and cucumber transplants coming along nicely for planting into heated greenhouses next week.

Seeding this week: cabbage, kohlrabi, cauliflower, onion, beet, lettuce, sugar snap peas, and leek transplants for April field planting. Finishing up rooting herb plant cuttings for 4" pots. Planting Albion strawberries in 36-count plug trays for field transplanting next month. Cleaning up aphids in spinach houses with ladybugs. Running on generator these past few days after massive power outage north of Boston during storm.

Farmers' markets very busy and strong sales. CSA signups coming in although we plan to cap memberships earlier this year as we are continuing to downsize our farming operations. Getting ready to start feeder pigs for sausages, one of our highest-margin enterprises. Wishing everyone a profitable and enjoyable growing season.

(Little Compton RI) Nothing like a good Nor'easter to sharpen one's focus on greenhouse issues! Eight days ago we got 85 mph gusts and sustained winds over 55 mph. With trees toppling everywhere power went out early in the storm. Our gutter-connect greenhouse had one bay split right down the fold seam on both layers! This is the second time in two years we have lost a greenhouse cover for this reason. If you ever need to ask for credit don't forget to save the ends of your greenhouse plastic shipping boxes with the manufacturers production date and production run number. The last piece we did lose was made by Klerks. (Significant? Don't know.)

Another lesson learned is that wiggle wire can cause failure in high wind situations. Nolt's Produce recommends double-wiring the end corners and a few extra across the middle of long runs. Without this procedure, we have had the wiggle wire cut a saw-tooth rip in the plastic! This last storm we had an end corner piece cut out about 7 feet in a saw tooth manner. We made the mistake of screwing in the wiggle wire base with galvanized drywall screws. A whole rollup side of one house the drywall screws snapped off from the wind. Lesson learned: drywall screws are brittle and are not made for focused stress like holding wiggle wire base down.

On the grafting front, we find that starting rootstocks after starting the scions is very important for matching up when it's time to graft. DRO and Estamino we start the day after, Maxifort the second day after, and Arnold we start three days later. We had a huge flush of aphids from all these dark rainy weeks. Bought in ladybugs and had tremendous success with control!

(Argyle NY) Pleasant Valley Farm. Temperatures over the past two weeks have been conducive for growth in our high tunnels, but the lack of sun has been holding some plants back. Spinach and Asian greens have had explosive growth but the lettuce is lagging, maybe also due to lingering damage from the cold snap. We have transplanted and seeded lettuce and mustards to fill in the gaps so we'll have high production when warmer weather draws out many people to buy.

Some Asian greens are going to flower, which the restaurants want, then we are replacing them with transplanted broccoli raab which will give our customers something new to buy. Farmers' market sales have been picking up nicely. Overwintered onions look great and we have weeded and fertilized them, watering is next. Greenhouse is full, onion transplants look good. We dug parsnips for the first time ever in February. Plowing snow in between everything else.

(Winchester NH) Picadilly Farm. 2017 was our first year using a Rinse Conveyor from AZS Brusher, like the one Andrew Chamberlin reviewed in the last newsletter. Like the model he reviewed, ours has produce moving through a long box, being washed either by a first pump with re-circulating water, or a second pump with higher pressure fresh water rinse, or both. Unlike Andy's, ours has no final brush clean as the produce transfers to a sorting table -- we either let roots tumble into bulb crates on a table, or transfer bunches by hand into crates on a table.

At the beginning, we transfer pre-dunked or sprayed roots onto the belt by pouring them on in a single layer, or transfer bunches by hand from the harvest barrels. Overall, we've improved for speed and organization, and would buy this again. We've also been able to add sanitizer in the re-circulating tank, which works well for the bunches. Because the pressure rinse keeps a fresh supply of water washing through the tank, we don't use sanitizer for crops that are rinsed that way. We used to wash the bunches in barrels on the floor, so ergonomics and speed are better in the conveyor, especially for bunches of beets, carrots, scallions, and onions. We used to wash roots in a barrel washer from Gindstone Farm, which did do a better job. The root washer we have needs to be re-built or replaced, and we're waiting on FSMA news to see what we want to do for that.

Here are a few more details. The unit requires 240V electricity supply. AZS set us up with a quick connect fitting in the pressure rinse line, so we can switch from running the pressure rinse to running a power washer nozzle, which is great for washing crates, or washing the conveyor when we're finished each day. There can be gallons of mud to clean out at the end of a roots wash. We use it to wash black bulb crates sometimes, just by running them through empty. We bought ours used, which came with a more expensive conveyor chain than AZS normally was including, and I'm not sure what difference that may make for something like sensitive summer squash skins.

Initially, we found that leaves from lettuce heads and arugula bunch leaves were getting bruised. So we installed a 2" ball valve in the circulation run, which allowed us to restrict flow enough to prevent the bruising but not enough to damage the pump. We also find that the pressure nozzles throw out a lot of mist, so about half our crew wears goggles for that (along with ear protection for the noise). We have more trials to do, to see if a different nozzle size or operating pressure can either reduce the mist or provide an even better scrub wash for the roots, without damaging the skins.

CHECK YOUR WINTER GREENS FOR MILDEW DISEASES

Meg McGrath, Cornell University, mtm3@cornell.edu

Downy mildew was confirmed on spinach last week in Massachusetts and Long Island. This is one of several powdery mildew and downy mildew diseases that have been plaguing lettuce and kale in addition to spinach growing in winter tunnels in the Northeast. There have been a few observations of these diseases in outdoor plantings in late fall and early spring.

Information about these diseases and their management plus photographs is posted at:

<http://vegetablemdonline.ppath.cornell.edu/NewsArticles/winter-greens.html>

Surprisingly, these diseases, with the exception of brassica downy mildew, have not been reported recently in field plantings during the more traditional growing period from spring to fall. I am trying to figure out what are the conditions enabling these diseases to develop in winter crops, and I would appreciate hearing your experiences. Hopefully increased knowledge will improve management recommendations. To gain a better understanding the occurrence of these diseases, I have set up a survey for growers with winter greens at:

<https://goo.gl/forms/VgRaLJAYJw3Endkv1>

PESTICIDE APPLICATOR TRAINING AND EXAM APRIL 25 OR 26

This meeting is for anyone wishing to obtain a Vermont Pesticide Applicator license: landscapers, nursery employees, school custodial staff, farmers, agricultural employers (for WPS compliance), garden center employees, etc. For current pesticide applicators, this program will provide 4 Vermont recertification credits.

The program will review Vermont pesticide regulations and the information covered in the CORE manual that is necessary to pass the CORE exam, which will be given after this training in the afternoon from 2-4pm. No category exams will be given but they can be taken at a later date. You must study the CORE manual BEFORE the review to have the knowledge to pass the exam; manuals cost \$41 and must be obtained in advance from http://agriculture.vermont.gov/pesticide_regulation/applicator_dealer_resources

Registration is on-line only, see: <http://pss.uvm.edu/pesp/?Page=trainingCORE.html>. Registration fee is \$30. After April 11, late registration is \$40. There are two location/date options. 1) White River Junction, April 25, VFW Post 2571, 97 South Main Street. 2) Burlington, April 26, Robert Miller Community Center, 130 Gosse Court. Contact Sarah Kingsley-Richards at (802) 656-0475 or sarah.kingsley@uvm.edu with questions, or visit <http://pss.uvm.edu/pesp/>

SWEDE MIDGE SURVEY TO GUIDE UVM RESEARCH

Swede midge, now present in several states and provinces in the U.S. and Canada, causes deformed leaves, scarred stems, and lack of head formation in broccoli, kale, cabbage, Brussels sprouts, and related crops. Researchers at UVM are conducting a survey to inform their studies of new management strategies for Swede midge. They would like to know about your experience with this new pest, and about your pest management strategies. Please complete a short online survey, and you'll be entered into a drawing to win an 8" 32 GB Amazon Fire tablet! Go to: <https://survey.uvm.edu/index.php/865119?lang=en>

FARMER ADVICE SOUGHT TO GUIDE RECYCLED URINE STUDIES

The Rich Earth Institute in Brattleboro is engaged in a research project with the University of Michigan investigating the potential of diverting human urine from the waste stream and using it as an agricultural resource. Urine is being captured for use in various places around the world (and in a pilot project in Brattleboro) and could be an abundant source of a local fertilizer. Moving forward, it's critical to ensure that urine-derived fertilizers are effective, useful, and meet the needs of farmers.

Ideas are sought from all types of farmers at two 90-minute listening sessions, on March 15 and again March 21 from 3:00-4:30 at the UVM Extension Brattleboro office. Coffee, snacks, and a \$35 gift card will be provided. Please reply to Tatiana Schrieber at: tatiana@richearthinstitute or call (802) 387-2781 if you can attend, noting your preferred date.