



Vermont Vegetable and Berry News – February 3, 2020
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REPORTS FROM THE FIELD

(Charlotte) It's been a great winter so far for hoophouse greens. In spite of getting downy mildew on the spinach in November (first time in 6 years), we've had consistent and healthy growth on all four varieties, plus the healthiest mustard greens for a few years. Steady markets have cleaned out the hoophouses of all the kale, arugula and lettuce we planted, and now we're down to spinach, parsley and mustard greens. Seeing very few aphids. Had 2 rats move in for the first time ever, which our dog dispatched of. He's still the best rodent control device we have! Cut flower seeding starts in two weeks, and right now we're focusing on bed prep, cleanup and planting plans. Looking forward to a great 2020.

(Guildhall) Potato storage continues to be challenging but doable. We've been able to keep the barn at 37 or 38 degrees pretty consistently and haven't run any heat yet. That said, multiple nights below zero in a row have me wondering when heat will have to be run, as we can fluctuate 3 degrees downward with consistently low outdoor temps. Quality is high with very little weight loss, blessed little rot, and no sprouting; knock on wood. Retail sales are good but certainly more wholesale orders need to be made to get the crop sold. Sold about 200K lbs. and have 500K lbs. to go. Need any spuds call me, Matthew Linehan 207 323 4439. Crop planning, bookkeeping, and brainstorming how to lower operating costs take up the balance of the time these days.

(Shaftsbury). The days are feeling longer as we head into February. Winter market and sales to local groceries have been steady. Our winter farmers' market is every week, which really helps to keep customers in the groove of attending.

In the tunnels, Space and Kolibri spinach are performing the best. Lacianto and Winterbor kale and Flash collards also holding up to temperature swings. I use one row cover and sometimes two when single or negative digits are forecast, with venting daily. Greens seem to hold up nice. Seeding radishes, arugula, lettuce mix, brassica mix, and kale now for early spring.

Three people are on payroll each at about 25 hours per week for harvesting, wash, pack, and deliveries. New heated hand washing station has been a welcome addition to the pack house. Crop planning mostly complete. Applying for grants for solar install and new cold storage.

Been revising the farm mission statement, core values, and re-visiting some enterprise analyses to help steer business planning into this next decade. Applicants for field crew trickling in.

Greenhouse heaters will be serviced next week, and the first prop house will be set up for starting the alliums and early greens. We have our pre-season crew meeting on February 29th. Each team member gets the year's crop plans (GH start charts, rotation plans, etc.) the 2020 annual calendar of farm tasks (everything from truck inspections due, CSA dates, market dates, quarterly meeting dates), notes from our 2019 season review meeting last fall, and a few ideas for different production ideas which are open for discussion. It's a very helpful meeting that gets us all on the same page and excited for the upcoming season.

We will be participating in UVM Extension's high tunnel tomato research. I sent in my high tunnel soil samples to UMaine (you get these costs covered if you participate in the research for the 2020 growing season), waiting to get results back and get Becky and Vern's recommendations for amendments. Making a nutrient management plan for the fields using last fall's soil samples. Finalizing crop rotation and entering in fertilizer requirements for each crop in their specific field block.

The annual VVBGA meeting in Fairlee last week was inspirational and full of valuable information. Grower stories of their extensive careers plus hearing from newer startups provided insight on the future of vegetable production in Vermont and New England. Exhibitors at the trade show featured advancements in climate monitoring in greenhouses, cleaning tools for harvest containers, programs for soil conservation and water quality, new seed varieties for cold climate performance, helpful government programs, info on regulations and grants, 501c3's to support, and more.

I'm looking forward to attending one of the upcoming nutrient management workshops, which I also attended last year. They are a great opportunity to review some soil science, get in line with the state water quality regs. and think about production practices.

(Plainfield NH) As vexing as the weather patterns have been the past two summers, for the last month and a half they have been benevolent. We are not burning excessive propane in the stock plant house, and the plants themselves have profited from the abundance of sun and moderate temps. We finally pruned our 5 acres of blueberries, which puts us all in a good mood, as we go about cramming in the last seasonal vacations before bedding plant season begins.

Lack of ice and snow has allowed us to rebuild rotten, sagging doors on greenhouses, as well as get 3 new greenhouse frames up and a 4th partially moved. Would like more snow cover on the strawberries, but I may regret saying that as there is a lot of winter yet to go. Taking vegetative cuttings of ornamentals and beginning to seed perennials, herbs and long distance annuals. Trying to come up with a system of tracking the stratification of our annual seeds. We see more and more seed houses transferring the burden of stratification upon the grower, and even in some popular annuals like cleome. This is time consuming and complicates crop timing.

Warm as it has been, we thought we would start to see the awakening of some of the pests hiding in the nooks and crannies of the greenhouse but (knock on wood) we are not seeing anything alarming and we introduced our first predatory insect controls this past week.

We will ramp up our efforts at getting local labor in this month, an arduous process that consumes time and energy. Today's employee tends to want less hours of course with increasing wage. Last year our kitchen manager set the bar, saying that for the wages we pay and the benefits we offer she would not interview anyone who would not commit to at least 30 hours a week. It actually worked. She got a few good folks and reduced the management of a large herd of employees. Scheduling on our farm is a big-time drain. Correspondingly, we have petitioned for the return of our 6 H2-A Jamaicans on the field crew; they are willing to work as many hours as possible.

(Argyle NY) The mild winter certainly makes growing in the winter easier, and more sun sure makes it better, too. Sales at winter farmers' market are right on target, even with moving to a new winter location. In the tunnels, we have a few diseases like Cladosporium on the spinach but keeping covers off more aggressively has helped, and we are trying a new product called Prestop that we will let you know if it is effective. Repeat applications of Oxidate have helped control some downy and powdery mildews in our lettuce. Regrowth in all tunnels is coming along and expecting more as February unfolds. Monitoring for aphids and we will be ready to buy ladybugs as every year.

Already transplanting more lettuce and mustards in the tunnels that were started in strip trays on the radiant heated GH benches. Forum onion sets are being grown on for scallions. Overwintered onions were checked and those in the low tunnel are great but many outside under rowcover had been pushed out of the ground by earthworms (and some in tunnels), so we replanted them.

GREENHOUSE HEATING SYSTEM MAINTENANCE TIPS

Adapted from John Bartok, Univ. of Connecticut agricultural engineer emeritus

For some growers, the winter heating season has started while for others it won't start until late winter or early spring. Whatever your heating schedule, you should find time to maintain your heating systems for optimum performance which will save on fuel costs and avoid potential problems.

Protect your fuel tanks; 20% of all service calls result from dirty fuel or problems related to the flow of the fuel. Tanks should be located away from dusty locations and water tight fittings should be used. Outdoor tanks should be protected from harsh winter weather with an enclosure.

Have all heating units serviced; the efficiency of most greenhouse heating systems can be improved by at least 5% by having a competent service person clean and adjust all furnaces and boilers. This should include changing the fuel filter on oil furnaces.

It is surprising how much sludge and dirt collects in the fuel. Replace the nozzle: wear increases the nozzle orifice opening increasing fuel usage. Select a nozzle with the correct spray angle to fit the firebox. Follow the manufacturers' recommendations. Replace and adjust electrodes. Inspect safety controls including cad cell sensor, transformer, limit switch and fan control.

On propane units check gas regulators for proper pressure settings and to be certain the regulator and gas port vents are not plugged. Tank relief valves should be replaced every 5 to 10 years. On larger systems an evaporator or vaporizer converts the liquid propane into the gaseous state. These heaters with safety valves and flame supervisor need to be checked and maintained. The mixer, a valve which combines propane gas with atmospheric air should be serviced and tested to manufacturers' recommendations. It is best to operate the furnace on a monthly basis during the year to check for problems.

Soot should be removed from heat exchanger surfaces. A 1/8-inch soot deposit can increase fuel consumption by as much as 10%. Brush and vacuum surfaces or clean them with special cleaning compounds. Exterior heat exchange surfaces, such as tubes, fins and radiators collect considerable dust and dirt in a greenhouse atmosphere. Brush and vacuum these surfaces to increase heat output. Clean blowers for efficient air movement. Drain off dirty water in steam and hot water systems. Analyze boiler water periodically to determine if treatment is needed.

Efficiency testing of a furnace or boiler is a 10-minute procedure that can indicate when problems begin to occur. It is key to saving money on your heating bill. Increasing efficiency by one or two percent can significantly reduce fuel consumption over the year. For example, a 2% increase in efficiency of a million Btu/hr. burner operating 3300 hours from September to May will save about 650 gallons of fuel oil.

The combustion process combines the carbon in the fuel with the oxygen in the air. The lack of adequate oxygen results in incomplete combustion and carbon buildup. A 400,000 Btu/hr. furnace will require about 100 cu. ft. of air/minute to operate efficiently. In tight poly and glass greenhouses, a makeup air supply of 1 sq. in. of intake area/2000 Btu/hr. burner input should be available from a pipe or louver through the endwall unless a separated-combustion heater is installed. These are installed with a direct connection to outside air.

Flue pipe connections should be tight and the chimney should extend at least 2 feet above the ridge of the greenhouse. The top of the chimney should be at least 8 feet above the combustion chamber and have a cap to prevent backdrafts and possible air pollution injury to plants.

Accurate controls are important to achieve high efficiency. The payback of replacing an old mechanical thermostat with a new electronic thermostats having a +/- 1-degree F differential is very short. The sensor should be shielded and aspirated with a small fan to quickly sense changes in the environment.

Air circulation will reduce temperature stratification in the greenhouse. Installing horizontal air flow (HAF) fans that move air at 50 to 100 feet/min can limit temperature differences to no more than 2 degrees at any point in the growing area. Use 1/10 horsepower circulating fans located 40 to 50 feet apart to create a circular flow pattern.

SOIL HEALTH AND HIGH TUNNEL NUTRIENT MANAGEMENT WORKSHOPS

UVM Extension and the VVBGA are hosting free workshops for commercial growers of all types and scales aimed at improving soil health practices both in the field and in high tunnels. Choose one of the following dates and locations. All workshops are from 9-12:30 with one-on-one technical assistance available from 1-3 pm. Coffee, refreshments, and a light lunch provided. This workshop is free, but please register at: <https://2020vegnutrientclass.eventbrite.com>.

February 12. Intervale Center, Burlington

February 21. Winston Prouty Center, Brattleboro

February 25. The Bakery Annex, Rutland

February 28. Lake Moree Resort, Fairlee

Questions? Contact Becky Maden (802) 773.3349 x 277 or Rebecca.maden@uvm.edu

VVBGA ANNUAL MEETING SLIDES POSTED

We had over 200 attendees and 30 exhibitors at the meeting. If you missed it or just want to reminisce, the presentations from Jan. 27 are available for viewing at:

<http://www.uvm.edu/vtvegandberry/VVBGAMeeting2020Presentations.html>

If you haven't renewed your membership please do so soon, before you get removed from the VVBGA listserv. The fee is \$70 per farm. You can also enroll in CAPS and make a donation to the research and extension fund. Go to: <http://2020vvbga.eventbrite.com/> or mail a check and all your contact info to: VVBGA, P.O. Box 66, Barton, VT 05822

Thanks again to our Annual Meeting sponsors: High Mowing Organic Seeds, Johnny's Selected Seeds, Vermont Compost Company, the Vermont Agency of Agriculture, Vitalis Organic Seeds, and UVM Extension for helping to keep the meeting fees low.

HIGH TUNNEL TOMATO PROJECT SEEKS GROWERS

We are inviting 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 review the participant agreement for details: https://drive.google.com/file/d/1BeBYeFeritaO4GWWBtoI-9u_FecKbfN4/view and then contact Becky Maden with questions or to sign up, ideally by the end of the month at (802) 773.3349 x 277 or rebecca.maden@uvm.edu.

FARM SUCCESSION PLANNING SEMINARS FEB. 4 OR 5

February 4, Billings Farm, Woodstock VT, 9am-3pm

February 5, Yankee Farm Credit, Williston VT, 9am-3pm

This seminar is for all generations, whether family or non-family members, that play a role in your farm's future. Topics to be covered: 1) Why succession planning is important! 2) Retirement and estate planning 3) Addressing tax issues in a transfer 4) Legal entities and tools you can use to transfer farm assets 5) Determining your goals for transfer planning & business transition. Registration is required, the fee is \$25 with lunch. Scholarships are available through Yankee Farm Credit. Free to Young, Beginning, Small, Veteran (YBSV) farmers. Email kcoombs@yankeefarmcredit.com or call 800-639-3053 to register.

DISCOUNT FOR VVBGA AT NOFA-VT WINTER CONFERENCE FEB 16-17

Members of VVBGA can register at the discounted rate of \$70/day. Use this special invitation link to register, <http://www.cvent.com/d/nhqyhk/4W> and enter the code: NOFA-VVBGA2020. Full conference schedule and details are at www.nofavt.org/conference

Growers are also invited to intensive workshops on 2/17: Demystifying the Wholesale Market for Farmers with Rose Wilson, and Commercial Herbs from Seed to Sale co-taught by Free Verse Farm & Foster Farm Botanicals. \$70 for members/\$85 for non-members, lunch included. See full descriptions: <https://nofavt.org/conference/workshops/monday-intensives>

TAKE THE ANNUAL SURVEY OF VT (RETAIL) PRODUCERS

Take the survey and be entered to win entry to the NOFA-VT Winter Conference! If you are a producer with a farm stand, CSA, or who sells at farmers' market, please take this Producer Survey conducted by NOFA-VT and the Vermont Agency of Agriculture. By participating, your farm listing will be updated in statewide farm directories, and you will us identify how better to provide services. The winner will be drawn Feb. 10 for a single-day ticket and lunch at the NOFA Winter Conference! Go to: <https://www.surveymonkey.com/r/Q6TQNK7>

MARCH 15 DEADLINE TO SIGN UP FOR SOME CROP INSURANCE

Whole Farm Revenue Protection insures income, and has an extensive list of eligible crops and includes conventional, specialty or organic production selling to a variety of markets. Certified organic producers can use organic prices. The Noninsured Crop Disaster Assistance Program provides financial assistance when eligible crops are affected by natural weather events resulting in lower yield or complete crop loss. It covers most vegetables, small fruits, some tree fruits, grains, and perennials. These policies must be purchased through a crop insurance agent. For more info: jake.jacobs@uvm.edu, 802-656-7356 or see: <http://go.uvm.edu/ag-risk>