

Vermont Vegetable and Berry News –April 3, 2018
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REPORTS FROM THE FIELD

(Burlington) After 15 year of unheated winter spinach, I haven't seen widespread frost damage before, but it looks like we are suffering that now. Nothing showed until a week ago. We've been leaving our spinach uncovered as much as possible, even during midwinter, but perhaps it is more important to cover during the wild swings of March, when we have zero degrees shortly on the heels of 60-70 degrees in the tunnels. Good news is zero downy mildew so far.

Had successful control of lettuce powdery mildew in our winter lettuce with only two applications of potassium bicarbonate late October and mid-November. Last spring PM I have ever seen in the tunnel.

I'm all in for dry autumns from here on out: our cabbage is still incredibly tidy out of storage, and our butternut was beautiful until we moved the last of it two weeks ago.

(Grand Isle) Island Blueberries. Started pruning. Rabbit damage appears more than previous years. Designing new net support system to allow switch over from bird net to insect exclusion netting.

(Orwell) Hard to believe it is April, with the snow just gone, leaving behind a sappy earth. However, our high tunnel crops are on schedule, although some look a little leggy from cloudy weather earlier in March. We are upgrading ventilation and heating systems, re-covering houses, grafting in small batches, and still trying to fit in a canoe trip while the rivers are high. Sent in high tunnel soil samples and we are amending soon to avoid problems we had last year of fertilizing too close to planting time.

We are knocking back winter aphids on our spinach with batches of lady bugs, which we will follow with *Aphidius* once the populations drop. Surprised to see that some greens we thought very dead from the early winter (kale and chard) are growing again, with tender sweet sideshoots. A yummy household harvest treat.

(Shrewsbury) We're making the transition from our fall-planted mustard greens to the first round of greens direct-seeded in early February. Cilantro isn't a high volume crop in our tunnel, but it's impressively productive harvesting bunches in the winter by picking leaves, and in March as a cut and come again crop. It pencils out to be our most profitable winter tunnel space.

Salanova and other 1-cut lettuces overwintered poorly from crown rot. Ann diagnosed Rhizoctonia and Thielaviopsis as a primary root infection, and Botrytis and Fusarium as secondary crown pathogens that infected already dead tissue. We harvested once in December, but then had about 70% mortality overwinter from disease. We saw higher disease mortality at the edges of tunnels, which suggests to me that preventing tissue damage from extreme cold may reduce secondary crown infection.

Spinach downy mildew was diagnosed on Escalade, but it is spreading very slowly and does not affect marketable yield. No sign of spinach DM on Scorpius, Violin, or spring-planted kohlrabi. Mustard greens stayed healthy overwinter with minimal disease pressure.

(Charlotte) Adam's Berry Farm. Now that all the snow has melted we have been able to start pruning blueberries. We are seeing a lot more winter damage and die back due to this year's extreme cold stretch and erratic temperatures. Summer and fall raspberries are all pruned. We will uncover strawberries this week as weath

Winter greens: keeping aphids at bay with spot delivery of ladybugs on weekly basis. White Rust is taking down our spinach. Next year I'll install Irrometer ground moisture probes to help us get a handle on winter soil moisture levels. We have let certain houses get way to dry and it's cost us growth, coloring and premature bolting issues.

Starting bok chois and Salanovas every month all winter has been a great production protocol. First Peas are in the ground. We now presoak our early peas at least for 7 hours and plant by hand. Pays back with more even stands.

(Craftsbury) Last year we had a lot of powdery mildew in greenhouse tomatoes. To manage it we now use a Maruyama gas powered mist duster. It seems to give a very fine coverage and enough power to spray 15 feet in the air. Sulfur (Microthiol Disperss) was by far the most effective organic control option, I did not find that the stylet oil worked very well (or anything else for that matter). Since we don't overhead irrigate in the greenhouses, the sulfur did not wash off and it remained an effective deterrent. The major downside of sulfur is leaving a residue on the fruits. I think in the future the best plan of management would be to spray the plants before fruiting if there's any sign of powdery mildew on the farm. Subsequently spraying the new growth only.

(Ange-Gardien, Quebec) Things grow well especially with that 10 days of sun we had (that's over 12000 joules/cm²). We had to reseed some crop because we had frost damage on March 17 on some crops that overwintered. It's interesting to see that the new growth was not as frost hardy than the rest of the planting. Trying to keep up with the winter/spring projects so they are functional asap. Produce easy to sell. We had issue with tip burn on spinach although we ventilated and irrigated as much as we can. but when humidity is high outside, you're done. Will need to keep calcium in stock all the time.

(Saratoga Springs NY) Green Jeans Market Farm. Have a lot of lettuce that needs to go into the ground. Direct seeded some into the tunnel hoping to have on the market table in a month. Filling up my 14' cold frame very quickly and hoping my tarps can thaw out my ground soon. Temp is a little low yet though so I'll be waiting until my soil warms before I plant anything outside the tunnel. It's my first season and planting into what was perennial grass last fall, so in my cold frame it's a job trying to stay ahead of the weeds. Forum sets in the cold frame range between 4-8 inch leaves. Same seeding outside shows no growth yet.

(Argyle NY) Pleasant Valley Farm. The lack of sun is still holding good growth back from all the lettuce transplants in the high and low tunnels, and newly seeded crops, but our weekly harvests have been good for markets, with about 350# of greens (salad mix, braising, kale, chard, spinach, arugula, Asian greens, etc.) harvested this past week, in addition to a 500# spinach wholesale order. The parsley has also been producing well this winter as well as a small patch of cilantro.

There has been no sign of any mildews on any greens, and the little bit of crown spinach mite we had was eliminated awhile back by a neem product (Azadirect) and we have distributed lady bugs several times over the past month and there are no/few aphids. The biggest disease issue was Alternaria on the arugula, and we thought maybe it was coming on the seed, as we have never had it before, so we attempted to hot water treat the seed. It was a complete failure so don't try that! They turn into a jelly mass! We are not sure if they could be steam treated but would be just nice to know that we can get dQu.u, ae

I am guessing the damage was from cold or other abiotic issue. New growth was good in the live sample I saw which is a clue that the damage is caused by something non-infectious.

Salinova lettuce was diagnosed with collapse caused by a root and crown rot due to tow soil borne fungi- Rhizoctonia and Theilaviopsis. These are in all soils and become a problem when conditions are cold and wet. The grower may try a little more heat to dry soil. It is tough to get all the covers on and off to regulate/minimize humidity and wetness with fluctuating temps in the spring.

Stored Rutabaga samples were exhibiting hollow centers most likely a result of Boron deficiency. <https://ag.umass.edu/vegetable/fact-sheets/boron-deficiency>
<https://pnwhandbooks.org/plantdisease/host-disease/turnip-rutabaga-brassica-sp-boron-deficiency>

Be sure your soil tests are current and you add enough Boron in your brassica crops. Turnip, cauliflower and rutabaga are very sensitive.

As always, we are happy to look at pictures or samples. <https://www.uvm.edu/extension/pdc>

Anyone wanting their VT Pesticide Applicator License: we are having 2 workshops on April 25 (White River Junction) and April 26 (Burlington). We will go over Core manual materials in the morning and offer the test after lunch. <http://pss.uvm.edu/pesp/?Page=trainingCORE.html>

GOLDEBERRY ON-FARM RESEARCH PROJECT

Would you like to grow goldenberries this summer? You are invited to participate in a USDA Northeast SARE (Sustainable Agriculture Research and Education) project aimed at promoting Goldenberries as a new fruit for CSAs and farmers' markets. Goldenberries are related to tomatillos and are similar to ground cherries. They grow to 5 feet and produce many cherry-size golden fruit with a tropical flavor combination of pineapple, strawberry and cherry. They need a long growing season to mature, so they are planted at the same time as tomatoes or peppers and benefit from mulched, raised beds. They can be trellised much like tomatoes, but it is not required. While ground cherries fall from the plant when ripe, making them difficult to harvest, goldenberries do not.

As a project participant you will receive: 25 seeds each of two superior goldenberry selections for evaluation, detailed instructions on germination, transplanting and field care and access to a MOOC (Massive Open Online Course) course beginning December 2018 which includes unlimited e-mail support for production related questions. Participation in this project is free, all we ask is that you provide feedback regarding your experience with this new fruit. If you wish to participate, please send me your farm phone, email and mailing contact information, and feel free to ask questions. Edward Durner, RutgersUniversity. Call 848-932-6366 or email durner@sebs.rutgers.edu

VT AGENCY OF AGRICULTURE DIRECT MARKETING SURVEY

The Vermont Agency of Agriculture is partnering with NOFA-VT to conduct our annual Direct-to-Consumer Market Survey for Vermont Producers. Your voluntary participation will help us