

Vermont Vegetable and Berry News – July 11, 2017

compiled by Vern Grubinger, University of Vermont Extension

(802) 257-7967 ext. 303, vernon.grubinger@uvm.edu

www.uvm.edu/vtvegandberry

UPCOMING EVENTS

July 11 (today, rain or shine) 5-7 pm. VVBGA Strawberry Production Workshop. Four Corners Farm, Route 5, S. Newbury VT. No registration or fee just show up if you can.

July 12, 5-7 pm. Cornell/NOFA-NY High Tunnel Workshop, Slack Hollow Farm, Argyle NY.

See: <https://enych.cce.cornell.edu/event.php?id=781>

July 19, 4-6 pm. NOFA-VT Leek Moth Workshop. UVM Catamount Farm, S. Burlington. See:

<http://nofavt.org/events/organic-pest-control-leek-moth>

July 26, 3-6 pm. NOFA-VT onion and potato workshop, Hurricane Flats, S. Royalton, See:

<http://nofavt.org/events/farm-smarter-not-harder-production-efficiency-onion-potato-crops>

July 27, 10-4. UVM Crops and Soils Field Day. Borderview Research Farm in Alburgh, VT.

Register by 7/21 at www.regonline.com/2017cropsfieldday or call Susan Brouillette (800) 639-2130 ext. 4322130

We are working hard to preserve and bring back to life the 166-acre historic Pitney Meadows Community Farm, Inc. as a non-profit in the City of Saratoga Springs. Our annual fundraiser is on August 1st and we'd love to have farmers come for this unique event featuring fire cookin

Rainy conditions can leach away early season fertility even if it is from compost, cover crops, or other organic sources. Furthermore, a little extra nitrogen can help your plants outgrow early season problems like seed corn maggots, which hit initial plantings of Brassica and onion crops hard, state-wide. If you see plants showing signs of nitrogen deficiency after excess rain, like yellowing lower leaves, you are especially likely benefit from sidedressing.

A good sidedress option for organic growers is Chilean nitrate (now formulated as 15-0-2, cost is ~\$6/ lb N), which will provide crops with immediately available nitrogen. Blood meal is more expensive (~\$11/ lb N) but also pretty quick release. North Country Organics Pro-booster (10-0-0) is another option. If you sidedress with whatever N amendment you have on hand be aware that some products such as composted chicken manure may add excess phosphorus and it, like seed meals, will release N more slowly than products containing Chilean.

Some vegetable growers are using Pre-sidedress Nitrate Tests (PSNT) to determine what soil nitrate levels before amending. For more information on sidedressing and using PSNTs, visit: <https://ag.umass.edu/vegetable/fact-sheets/pre-sidedress-nitrate-test>

SWEDE MIDGE MANAGEMENT

Rachel Schattman, UVM Extension

Swede midge (SM) a pest of cole crops, is present in Ontario, Quebec, MA, NJ, NY, and northwest VT. It is moving southward. It typically has four generations, often overlapping, between May and October, with 3-6 weeks per generation. Females lay eggs in young plant tissue, where larvae feed, damaging the growing point. Symptoms include galls on transplants, irregular branching in broccoli plants, multiple heads in cabbage, and other malformations.

Very little research has been done on insecticides for this pest in vegetables. One study had some success applying Assail 30SG to transplants prior to planting out. Always check product labels. Assail is not approved for greenhouse use, so transplants must be brought outside prior to application. There are currently no sprays approved to control SM on organic crops. If you think you may have swede midge on your farm, the UVM Plant Diagnostic Clinic can help confirm, see <http://pss.uvm.edu/pd/pdc/> or contact ann.hazelrigg@uvm.edu.

For more info see this Ontario Ministry of Agriculture fact sheet:

<http://www.omafra.gov.on.ca/english/crops/facts/08-007.htm>

Dr. Yolanda Chen at UVM studies SM. She and her grad students post updates about their research at: <http://blog.uvm.edu/yfanslow/our-work-on-swede-midge/>

A presentation on swede midge in Vermont by Andy Jones, Intervale Community Farm, and Dr. Chen is at: <https://www.uvm.edu/vtvegandberry/VVBGAMeeting2013/ChenSwedeMidge.pdf>

POWDERY MILDEW ON CUCURBITS

(Abha Gupta, UVM Extension, NW Crops and Soils program)

Most years, cucurbit plants become infected with powdery mildew (PM). This fungus first appears as white, powdery spots, that start on one leaf surface and then spreads to both sides and plant stems. Infection sites may also turn yellow. PM grows well in high humidity, moderate temperatures (60-80°F), and shady conditions.

PM can decrease photosynthesis and therefore yields, but it can also lead to further infections by fruit rotting diseases, like black rot, that may not turn up until storage. To prevent infection, use tolerant or resistant varieties, avoid planting in shady spots, and space plants widely to promote air flow.

PM cannot be controlled by fungicides after the disease is well-established, so prevention is key. Apply materials at the first sign of the disease and follow a regular spray schedule to protect new growth, whether using conventional or organic sprays. For a listing of labeled materials on pumpkins and squash see: <http://nevegetable.org/crops/disease-control-18>

Biopesticides are a potential tool being evaluated for PM control. Biofungicides contain microorganisms as the active ingredient. They affect pathogens through competition, producing a toxin, predation, and/or inducing plant resistance. We recently evaluated 4 biofungicide products: Sonata, Cease, Regalia, and Actinovate along with Champ and Oxidate for their efficacy in managing PM.

Results from the 2016 field season can be found at our website, <http://www.uvm.edu/extension/cropsoil/>. Results from the 2017 field season will be posted

SUMMER COVER CROPS

(Becky Maden, UVM Extension)

Even though vegetable crops may be behind schedule with the cool, wet start to the year, you still have time to get summer cover crops into your crop rotation this season. Summer cover crops can help improve soil health as a niche between early spring crops and later fall crops, or as a second-half of season 'fallow.' Here's a summary of a few key summer cover crops.

Buckwheat is a good choice if weed suppression is your main goal. It establishes, blooms and reaches maturity in just 70 to 90 days, and the residue breaks down rapidly after incorporation. Drilled at 50 lbs/A or broadcast at 70 lbs/A.

Sorghum-Sudangrass (*Sorghum bicolor* x *S. sudanense*) is a top choice for adding organic matter and building soil. Sorghum sudangrass can reach 5-12 ft. tall with 3-4 tons of biomass addition per acre. Drill 35-40 lbs/A or 40-50 lbs/A broadcast.

Sunhemp (*Crotalaria juncea*) Sunhemp has produced high amounts of biomass (3-4 tons/A) in Massachusetts). It is a high nitrogen-fixing legume and can contribute over 100 lbs N/A to a following crop. Allow sunhemp is to grow 1-3 feet tall, then mow it and let it regrow again. Drill 20-30 lbs/A.

Crimson Clover (*Trifolium incarnatum*) is a good choice for a short-term summer cover or seeded between plastic rows to reduce splash, weeds, and erosion. Shade tolerance makes this cover crop a good choice for mixes. Depending on coverage, it can fix 70-150 lbs N/A. Drill 10-20 lbs/A, and broadcast at 12-24 lbs/A.

Phacelia (*Phacelia tanacetifolia*) also known as blue or purple tansy is a good cover crop for use in rotation on vegetable farms because it is not related to many crop families. This fast growing cover crop prefers mid-summer seeding. Drill 1lb/A and broadcast 3 lb/A.

Forage-type Pearl Millet (*Pennisetum glaucum*) or Japanese Millet (*Echinochloa* spp.) have similar functions as a summer cover crop: they grow rapidly but can be more easily managed than sorghun sudangrass though with less biomass (4-6 feet tall). Drill 12-15 lbs/A or broadcast 15-20 lbs/A.

Cowpea (*Vigna unguiculata*) is fast growing with peak biomass around 60 days and tolerates drought and heat. Cowpeas can fix up to 100 lbs N/A with biomass of 3000-4000 lbs/A. Drill at 40-50 lbs/A and broadcast at 70-100lbs/A.