



Vermont Vegetable and Berry News – February 3, 2016
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UPDATE FROM THE UVM PLANT DIAGNOSTIC CLINIC

Ann Hazelrigg

Here is a recap of my review of pests to look out this coming season, presented at the 2016 Vermont Vegetable and Berry Growers Annual Meeting.

Celery Anthracnose-New disease suspected in celery although a NY organic grower in the audience said he has seen it in his fields before.

http://msue.anr.msu.edu/news/celery_anthracnose_a_new_disease_for_michigan_growers. This fungus disease causes curled, cupped and twisted leaves and petioles and can lead to a heart rot. This can also resemble black heart which is caused by calcium imbalance.

<https://nevegetable.org/crops/physiological-disorders-0>. The curled and twisted leaves can also look like herbicide damage or like Aster Yellows virus. The fungus likes warm and moist conditions. If you suspect this disease, send us a sample for further testing.

Potato Leafhoppers-According to a NEIPM center newsletter potato leafhoppers are arriving 10 days earlier than in the 1950s, about a day earlier every 10 years. These pests overwinter in southern regions and blow in on storm fronts. They were early last year and their feeding causes scorching/browning along leaf edges in potatoes, beans, raspberries and lots of other crops. See full article on this pest and climate change at

<http://www.northeastipm.org/neipm/assets/File/Insights/InsightsJan2016.pdf>

Cabbage aphids-These waxy gray/white aphids caused a lot of problems in crucifers this past season and can rapidly build up. Thresholds for organic growers is 2% infestation and conventional is 10%. They can damage growing points and head formation. Pyrethrum, neem, insecticidal soap, mixed with an adjuvant worked well in Mass. These pests migrate north but winter production may be providing a bridge for the seasons. Scout tunnels early. Release of ladybugs in tunnels should help according to Cornell.

Onion leek moth continues to expand range. We have noted it in the following counties: AD CH, FR, GI, LA, OL, OR and RU. Let us know if you are seeing it in any other counties! I saw a lot of injury on garlic scapes this past year. Second generation is most damaging in July/August as it

feeds on emerging leaves and makes its way to bulb/base. Look for “window pane-ing” in hollow stems. Use good rotation and row covers. If you are spraying, be sure to set out traps to catch adult moths. Growers mentioned they had had good luck spraying 7-10 days after the adult flight.

Onion downy mildew-Saw a fair amount this summer. Likes cool moist weather in July and looks like fuzzy dirt on stems. Can defoliate and decrease bulb size. Overwinters in debris.

Basil downy mildew-Showed up in Burlington July 24. Looks like a nutrient deficiency. Eleanora is somewhat resistant but will eventually get the disease. Keep leaves dry and plants spaced well, but it seems like once it shows up, everyone gets it.

Late blight on potato- Found on potato on 2 farms in early July. Not much spread, so it must have come from seed. Late blight on tomato was not as devastating as in years past and took a while to spread around the state.

Phytophthora fruit rot-This was seen a couple of place on squash due to the wet June weather. I think most of our crops were safe because there was not much fruit out there early in the season to get infected by the soil borne fungus-like organism. It causes a yeasty mold and rapid meltdown of many crops.

Bottom rot and web blight seen on lettuce due to wet weather in June. Rain splashes spores onto leaves and they collapse.

Cucumber scab-prevalent on some farms due to wet weather, fogs. Fungicides can control this fungus disease but if it is wet it is hard to stay ahead of this problem. Use long rotations.
<https://ag.umass.edu/fact-sheets/cucurbits-scab>

Black rot crucifers-Still seeing a lot of this in kale and other crucifers. Get your seed hot water treated! <https://ag.umass.edu/fact-sheets/brassicac-black-rot>

Embellisea blotch on garlic-Mainly a cosmetic problem on first few wrapper leaves showing diffuse charcoal patches. May be unmarketable. Keep RH below 70%.
http://rvpadmin.cce.cornell.edu/pdf/weekly_update/pdf47_pdf.pdf

Fusarium basal rot garlic-Also prevalent. Caused by a soil borne fungus entering through basal plate. Can cause pinkish rot, scarring on cloves. Keep RH low and cull suspect seed. Garlic bulb mites may often be associated with these fungal disease issues and can cause further wounding and entrance for disease.

White rot garlic-Very destructive. Look for small hard black sclerotia (like black mustard seeds) on cloves. Use LONG rotations and cull seed.

Fall/Winter spinach-seeing lots of Cladosporium fungus. This disease causes brown spotting on foliage. Keep plants dry and well-spaced. Also seeing stunting, curling of leaves in the crown on spinach caused by spinach crown mite. Neem spot treatment has worked for several growers.

Alternaria leaf blight seen in carrot this summer and is more prevalent on older tissue, Cercospora can cause the same type symptoms on newer tissue. Some resistance, maintain good N fertility. Bacterial blight can also cause same type symptoms so if you are using a fungicide and it is not working, make sure it is not bacterial!

Dickeya on potato. New disease that looks like black leg of potato (blackening of stems, collapse of stems, rot, stunting, etc) but is more aggressive. It is seed borne. Use good sanitation and disinfest seed cutting knives often. If you suspect this disease, let us know.

This spring-use good sanitation when starting seedlings, keep the rots warm and not too wet to avoid most diseases. Remember, the early season stuff is mainly non-infectious. Of course, please send a picture, email or sample to the UVM Plant Diagnostic Clinic if you have a plant problem! PDC, Jeffords Hall, 63 Carrigan Drive, UVM, Burlington, VT 05405.
Ann.hazelrigg@uvm.edu, 656-0493.

SLIDE SHOWS POSTED FROM VVBGA ANNUAL MEETING

To view images to go with the above, and all the other slide shows at the 2016 VVBGA Annual meeting (including Becky Sideman's slides on vegetable variety trials, just posted) go to:
<http://www.uvm.edu/vtvegandberry/VVBGAMeeting2016Presentations.html>

CHANGES TO WORKER PROTECTION STANDARDS

EPA has finalized updates and revisions to the existing worker protection regulation for pesticides. The worker protection standards (WPS) must be followed by all commercial farms that apply any type of pesticide. Changes include:

- First-time ever minimum age requirement: Children under 18 are prohibited from handling pesticides.
- Personal protective equipment will be consistent with Department of Labor's standards for ensuring respirators are effective, including fit test, medical evaluation and training.
- Continue the exemption for farm owners and their immediate families with an expanded definition of immediate family.

- Mandatory record-keeping to improve states' ability to follow up on pesticide violations and enforce compliance. Records of application-specific pesticide information, as well as farmworker training, must be kept for two years.
- Requirement to provide more than one way for farmworkers and their representatives to gain access to pesticide application information and safety data sheets: centrally-posted, or by requesting records.
- Specific amounts of water to be used for routine washing, emergency eye flushing and other decontamination, including eye wash systems for handlers at pesticide mixing/loading sites.
- These changes began Jan. 4, 2016. Full enforcement of changes will begin Jan. 4, 2017, except for the expanded training content and the new exclusion zone requirement which will be enforced after Jan. 4, 2018. Farm owners and employers have a one-year grace period to make all appropriate changes before they are subject to fines/penalties if not in compliance by 2017.
- If you have questions or need more information, please contact Annie Macmillan at the Vermont Agency of Agriculture, (802) 828-3479, or anne.macmillan@vermont.gov

STUDY OF SURPLUS PRODUCE IN VERMONT

Salvation Farms has launched a study to estimate the amount of quality produce left each year on Vermont farms. This study will also look at ways Vermont farms can be supported to provide this produce to people in need, thereby strengthening our regional agricultural system. You can help this effort. In the next month, a short survey will be distributed to help estimate the amount of quality produce not making it to market, and the survey will obtain farmer perspectives on what they want done with their 2nds/surplus crops, and how they'd like to benefit from these crops. Prior to this survey, focus groups will take place in Montpelier (on February 3rd) and in Brattleboro (on February 11th) to get input to inform its design. If you are interested in joining a focus group or learning more about the study, contact theresa@salvationfarms.org. Here's a link to an article about the study in the VT Digger: <http://vtdigger.org/2016/01/14/174121/>

QUICK SURVEY TO SUPPORT GRANT ON WHOLESALE MARKET TRAINING

David Conner and Mark Cannella of UVM are applying for USDA funding to develop training programs to prepare produce farmers to better access wholesale markets. The proposal will be stronger if it addresses the interests of farmers. Please take the survey to share your opinions, it has just four short questions and should take one minute or less to complete (really!). <https://survey.uvm.edu/index.php/812768/lang-en>. If you have any additional comments or suggestions, please david.conner@uvm.edu. Thanks in advance, David Conner, Department of Community Development and Applied Economics, UVM.

FACEBOOK RESOURCES FOR GROWERS

Check out the Facebook Four Season Farming and Winter Production group page <https://www.facebook.com/groups/869847579741683/> This has great information and questions being asked for anyone involved with winter growing. Another is the Market Gardening Success group <https://www.facebook.com/groups/134018140298600/>

NOFA-VT WINTER CONFERENCE AT UVM

February 13-15, 2016. See: <http://nofavt.org/events/winter-conference-2016>

NORTHEAST KINGDOM FOOD SYSTEM SUMMIT AT STERLING COLLEGE

On March 26 this summit will address the future for NEK family farms, how to feed our hungry neighbors and communities in the NEK, how can we get NEK food and farm products to other markets, and storage or aggregation needs of NEK farmers. This full day, free event is for farmers, food businesses, distributors, service providers. Lunch will be provided. Stay tuned for more info here: <http://nvda.net/NEK%20Food%20System%20Plan%20Summit.php>. For details contact: Taylor Foster, (802) 635-2620 or nekfoodsystemplan@gmail.com