



UMASS
EXTENSION



Vegetable Notes

For Vegetable Farmers in Massachusetts

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FALL SANITATION AND DISEASE MANAGEMENT

Sanitation is an important disease management principle. Removal of diseased plant and/or infested plant debris after harvest reduces the amount of pathogen available for over-wintering and initiation of disease in the spring (initial inoculum). Foliar pathogens like *Septoria*, *Cercospora*, and *Alternaria* species overwinter on the soil surface in plant debris, but do not survive in the soil in the absence of plant debris. Plowing under this debris leads to faster decomposition of plant material and robs these pathogens of a food source. A one year rotation away from the same crop or same plant family is usually sufficient to reduce these pathogen populations. Disking does not bury this debris and does not reduce initial inoculum. Unfortunately, soil-borne pathogens such as *Phytophthora capsici*, *Fusarium* and *Verticillium* species, and *Sclerotinia sclerotiorum* (White Mold) produce long-lived survival structures that persist in the soil without plant debris for long periods. Plowing them under actually increases soil inoculum. Long (5-7 years) rotations away from the same crop or same plant family are required to reduce the population of these pathogens in the soil. If possible, cucurbit, pepper, and tomato fruit ideally should be removed from the field and cull piles not located near production fields.

Cover crops, in addition to their benefits in protecting against soil erosion, can also have beneficial effects in managing soil-borne pathogens. Cover crops when used as a green manure can increase the disease suppressive properties of a soil. Addition of organic matter stimulates the natural soil microflora. These microorganisms can reduce plant pathogen activity by competition for space and nutrients, direct parasitism of plant pathogens, production of antibiotics that slow pathogen growth, and by stimulating the plants' natural defense systems (i.e. plant growth promoting rhizobacteria). There are a few exceptions to this rule. For instance, planting into undecomposed plant residues can increase *Rhizoctonia* infection of peas and beans and also increases the activity of bulb mites (garlic). An exciting new line of research in cover crops is the concept of biofumigation. Brassica crops, specifically, mustard and canola, are grown as a green manure. When incorporated into the soil, the plant residues release several compounds and gases that are toxic to microorganisms. Plant pathogens are killed and beneficial microorganisms repopulate the soil quickly. Research at Cornell has indicated that biofumigation results in a significant reduction of *Phytophthora capsici*. Brassica residues must be incorporated shortly before planting and need to be chopped, rototilled, cultipacked, and irrigation added. The process is analogous to fumigation and does not eliminate pathogens completely, but reduces their populations dramatically. There are some practical issues with the process; for example, large volumes of Brassica residues are needed. There have also been some reports of plant damage (phytotoxicity) like stunting.

-- M. Bess Dicklow, UMass Extension

MASSACHUSETTS SMALL FARM BILLS

The small plot farming bill changes MGL 40a Section 3. Please note that it does not impact 61a (lots of folks misinterpreting this due to the fact that both laws reference 5 acres).

Small Plot Farming - In the past decade, there has been a significant increase in the number of small farms in the Commonwealth. As small farms became more prolific, it became clear that they needed relief from local zoning ordinances along the lines provided to those farms of 5 acres or more (MGL 40a S3). This was the gist of the Small Plot Farming bill. While the original small plot farming bill died in Committee, emphasis on this bill at County Farm Bureau legislative

breakfasts prompted legislators to include provisions in an economic development bill which ultimately passed. Under provisions of this act, a farm of two acres or more, that makes at least \$1000 annually per acre in gross receipts will enjoy the same zoning protections afforded larger farm parcels. The act does NOT change Chapter 61A, and only relates to zoning matters. Thanks to Senators Bruce Tarr, Karen Spilka, Michael Moore, Jamie Eldridge and Representative Brian Dempsey for moving this forward.

Farm Winery Bill - The economic development bill which carried the day for small farms did the same for farm wine growers. Under the new provisions, state law now allows Massachusetts farm wine growers to sell their products at agricultural events, including farmers markets. Sellers would need to obtain a permit from the municipality in which they plan to sell. MFBF was part of a coordinated effort to push for the state to allow the sale of wine at ag events. Senators Eldridge, Ben Downing and Spilka, and Representatives Straus and deMacedo played key roles in the success of this effort.

School Nutrition Bill - This bill is designed to ensure that kids have access to healthy food in school. While much of it focuses on actions schools must take, there are provisions that promote the purchase of local farm products. When going out to bid, public colleges and universities must attempt to procure MA grown or produced products - the same as already in place for public schools. The school must purchase local product if offered, so long as the price does not exceed more than 10 percent of other available products. The new law also clarifies existing provisions for public schools, stating that schools can make multiple purchases from farms, without going out to bid so long as the contracts do not exceed \$25,000. Kudos to Representative Jeff Sanchez for sponsoring this bill and to Representative Steve Kulik and Senators Stan Rosenberg, Steve Brewer and Bruce Tarr for ensuring that agriculture was included.

Food Policy Council - Following a model started in several other states, the Governor recently signed legislation creating a Food Policy Council. The Council is intended to bring representatives of the hunger, health and agricultural communities together to advise legislators and policy makers on how to create a stronger and healthier local food system. Representative Kulik and Senators Rosenberg, Brewer and Tarr were key to the passage of this bill.

- Rich Bonnano, UMass Extension

UPCOMING MEETINGS

Greenhouses and High Tunnels: Shelled Corn for Heat in the Greenhouse and Crops that Work in Unheated High Tunnels

Thursday October 21, 2010, Indian Head Farm, 232 Pleasant St, Berlin, MA 01503. 4-6:30 pm

On October 21, Tim Wheeler of Indian Head Farm will highlight using shelled corn to heat his spring greenhouse, and we will discuss the many crops that could be grown in the new unheated high tunnel that he installed with funding from NRCS including berries, flowers, and cold-hardy greens.

USDA Good Agricultural Practices (GAP) Training Program

October 22, 2010

Farm Bureau Federation Office Place Hotel

If you have questions, please contact Doreen at 413-545-2254 or email at dyork@umext.umass.edu.

Low-Cost Vegetable Storage for the Winter Market

Blackwell Roots, Cabot, VT

Monday, October 25, 2010 from 3 - 5pm

Lee Blackwell and Ruth Richards of Blackwell Roots Farm market organic winter storage crops, frozen fruit, kimchi, and sauerkraut to wholesale outlets, on-farm, and at the Montpelier Winter Market. They will describe their systems for growing and storing winter crops such as carrots, potatoes, onions, etc. They will cover in detail how to set up a Coolbot system, explore other low-energy walk-in cooler options and ideas, and share storage tips. There will be a tour of several different designs of storage rooms and a discussion of their strengths and weaknesses, and review what would be done differently now. We'll also discuss winter market growth potential.

Free for VOF farmers and VV&BGA members, \$10 for NOFA-VT members, \$15 non-members. Pre-registration required please call NOFA-VT at 802-434-4122. (limit 25)

Directions to 1243 Walbridge Rd, Cabot: From Cabot Village, go 1.9 miles north on South Walden Rd. Turn right on Walbridge rd., and go 1+ mile to the end of the road.

Questions? Vern Grubinger 802-257-7967 x303 or Wendy Sue Harper 802-434-4122 x21

Sponsored by: University of Vermont Extension, the Vermont Vegetable and Berry Growers Association, Vermont Organic Farmers / NOFA-VT, and the Risk Management Agency, which provides sound risk management solutions for farmers, see: www.rma.usda.gov

New Online Cornell Courses for Beginning Farmers Debut This Fall!

Reserve Your Spot Now!

Need some guidance on the development or expansion of a farm enterprise? Can't find any trainings near you? If you're comfortable enough with a computer to consider learning online, you'll be glad to know that the Cornell Small Farms Program and Cornell Cooperative Extension are expanding offerings of their popular online courses for beginning farmers with two new online courses this Fall, in addition to our usual beginners Fall course, BF 101. Join experienced CCE and farmer instructors and 25 of your farmer peers in a dynamic learning experience that incorporates both self-paced readings and real-time virtual meetings with discussion forums, homework activities, guest presenters, and developing a customized plan for your next steps in farming.

The Cornell Small Farms Program and Cornell Cooperative Extension (CCE) present:

BF 110: Soil Health Basics: Investing in the Vitality of Your Farm

NOTE: This course will incorporate a face-to-face field day hosted by the Northeast Organic Farming Association at instructor David Belding's Cross Island Farms on Wellesley Island, NY, 4pm-7pm Oct 18th. This will be an amazing opportunity to meet your fellow coursemates and see firsthand how David has improved the soils on his farm over the past 5 years. The field day fee is covered by the course registration cost.

Instructors: David Belding – Cross Island Farms, Wellesley Island, NY, and Dan Welch – CCE Cayuga

BF 104: Financial Record-keeping: A Cornerstone of Farm Profitability

Instructors: Bonnie Collins – CCE Oneida County and Steve Hadcock - CCE Columbia County

BF 101: Taking Stock: Evaluating Your Land and Resources and Choosing an Enterprise

NOTE: You will get the most out of this course if you already have access to land. Each participant will be gathering information about their own enterprise and will begin to create a Farm Plan.

Instructors: Laura Biasillo - CCE Broome County and Dianne Olsen – CCE Putnam County

COURSE DATES: Thurs. Oct 14, 2010 to Wed. Nov 24, 2010. All courses incorporate live webinars featuring farmers, agency staff, and University faculty. See link below for webinar dates and details.

COST is \$150 per course, except the Soil Health course, which is \$165

TO REGISTER, or for more information on course format and requirements, please visit <http://www.nybeginningfarmers.org/index.php?page=onlinecourse>

Northeast Greenhouse Conference and Expo 2010

November 3 - 4, 2010

DCU Center, Worcester, MA

New England Floriculture, Inc., invites you to attend The Northeast Greenhouse Conference & Expo in Worcester, Massachusetts and join other growers and retailers for the largest nationally recognized floriculture industry show in New

England.

For registration and details, please see: <http://www.negreenhouse.org/>

Season Extension Pest Management Webinar Series

November 2010

The Great Lakes Vegetable Working Group in partnership with the University of Illinois are organizing a Season Extension Pest Management webinar series to begin November 1st. The webinars are 1-2 hours long and intended for growers, educators, and NRCS staff. Each webinar is listed below in detail with specific topics, speakers, and times.

Register for the webinar series at http://www.surveymonkey.com/s/season_ext

Please note there is a \$30 registration fee for this webinar series whether you participate in 1 or all 5 of the webinars. After you register, you will be sent information about where to send payment.

Please note that webinars 1, 2, 3 will be held at 6:30-8:30 pm EST (5:30-7:30 pm CST) and that webinars 4 & 5 will be held at 1-2 pm EST (noon – 1 pm CST).

Webinar 1 - Introduction to Pest Management for Season Extension [GLVWG]

Nov. 1, 2010 6:30-8:30 pm EST (5:30-7:30 pm CST)

Webinar 2 - Pest management of Tomatoes in High Tunnels [GLVWG]

Nov. 3, 2010 6:30-8:30 pm EST (5:30-7:30 pm CST)

Webinar 3 - Pest Management in Winter Crops [GLVWG]

Nov. 8, 2010 6:30-8:30 pm EST (5:30-7:30 pm CST)

Webinar 4 – Nutrition, Water, and Soil Management in High Tunnels [U of IL]

Nov. 16, 2010 1-2 pm EST (noon-1 pm CST)

Webinar 5 – Interpreting NRCS High Tunnel Project Guidelines [U of IL]

Nov. 18, 2010 1-2 pm EST (noon-1 pm CST)

How to Run a Successful CSA

November 13, 2010

Many Hands Organic Farm, 411 Sheldon Road, Barre, MA. With 19 years of experience running a CSA, Julie Rawson of Many Hands Organic Farm in Barre, MA, will discuss elements of a successful CSA operation. Registration: \$40. NOFA membership discount: \$5. Early registration (by October 30, 2010) discount: \$5. www.nofamass.org/seminars/fallseminar.php

New Entry Sustainable Farming Project Farmer-to-Farmer Conference

December 9, 2010

Sturbridge Host Hotel, in Sturbridge, MA. 9:00 AM – 6:30 PM

The conference will provide: Farm Business Expertise: farmers will learn from seasoned experts and from each other about how to maximize farm business enterprise potential. Panel Discussions: Speaker panels will cover topics in the areas of soil fertility, farm business and financial planning, strategies for ensuring the health of livestock, and building sustainable communities around food. Peer to Peer Learning: a facilitated World Café discussion will give farmers a chance to choose discussion topics of interest on site and share best practices. Enjoy a networking lunch and a farmer-to-farmer networking reception. For more information, contact Kimberley Fitch at 978-654-6745, or e-mail nesfp@tufts.edu. Register at www.nesfp.org.

Winter Vegetable and Berry Meetings

Friday January 7, 2011. Chicopee area (location TBA).

Saturday January 29, 2011. Waltham.

The January 7 program highlights the new Massachusetts Commonwealth Quality program, a voluntary certification program that recognizes farmers' use of Best Management Practices in producing lumber, dairy, seafood, and produce. The "Seal of Commonwealth Quality" which will distinguish Massachusetts products that meet program requirements in the areas of environmental and water conservation, crop production & pest management, worker protection, and food safety. The New England Vegetable & Berry Association, along with many other industry groups, is working with MDAR to launch this program in 2011. The morning program will focus on food safety. Come and learn how your farm can benefit!

The January 29 program will include a half day on soil and nutrient management, reduced tillage including deep zone tillage, and cover crops. The afternoon will have updates on pest management issues including new pesticide chemistries and all-too-familiar Phytophthora diseases of cucurbits, peppers, tomato and potato.

Co-sponsored with the New England Vegetable and Berry Growers Association and consortium of New England state Vegetable Programs.

Registration opens at 9:30 am and programs run from 10 am to 4 pm. Contact hours for pesticide applicator recertification will be offered at both meetings.

To register and for more information contact John Howell (413-665-3501, howell@umext.umass.edu) or Ruth Hazzard (413-545-3696, umassvegetable@umext.umass.edu) or see www.umassvegetable.org.