Veg Edge
Your Trusted Source for Research-Based Knowledge

Cornell University
Cooperative Extension
Regional Vegetable Programs

October 2012 Volume 8, Issue 26

Planting Considerations for Garlic

Crystal Stewart, Capital District Vegetable & Small Fruit Program

Without a certification program in place some growers are wondering how they should treat new seed introduced onto the farm. Many growers have been able to find sources of nice, healthy-looking seed from sources that have tested negative for Garlic Bloat Nematode, but this result is not a guarantee that every bulb that the grower produced is GBN free; it is only a guarantee that the garlic used in the test is GBN free! Additionally, new seed may come with Fusarium or surface molds. To minimize risk of infesting established seed stock, and to promote healthy and vigorous garlic next year, include a few safeguards and best management practices in your fall plans.

Fusarium basal rot.
Photo: C. Stewart, Capital District Vegetable & Small Fruit Program

Map it out: Create a planting map for the garlic, and separate the new seed from your existing seed stock. The separation doesn't have to be large, since GBN can move no more than one foot in soil. However, if your soil moves, the GBN can move with it, so make sure you plant new seed down hill from established seed to prevent movement with water erosion. Also place your new garlic where you will be able to plant and cultivate it last. Avoiding movement of soil around GNB infested plants to areas with uninfested plants during cultivation is a key preventative action during the growing season. Label the new garlic clearly in the field for reference next year.

Fusarium bulb rot.
Photo: C. Stewart, Capital District Vegetable & Small Fruit Program

Cull bulbs or cloves with symptoms or damage when cracking open bulbs: Carefully feel and look at each clove during this process, and remove anything that looks suspect. Discard cloves with unhealthy looking basal plates, with dents or lesions on or under the wrapper leaf, and any cloves that feel unusually light. Do not compost these cloves---either bury them away from the field or throw them away.

Treat all seed with a surface sterilizer: Sterilizing the surface of the cloves will NOT control GBN! However, it will reduce issues with surface molds such as Aspergillus black mold and will kill surface Penicillium blue mold. This is a best practice for all garlic. You can either use a 10% commercial bleach solution (1 part bleach and 9 parts water) or you can use an OxiDate dip (23 oz per 25 gallons water). Remember to test bleach solution and OxiDate dips for activity if treating large amounts of seed, and replace solution when activity decreases. Plant cloves immediately after dipping, not after they have dried back out.

Optimize pre-planting soil fertility: See Table 1 for Cornell fertility recommendations. All phosphorus and potassium should be applied at planting. Slow release organic forms of N such as alfalfa and soybean meal can be applied at planting. Quick release synthetic or soluble forms of N should be reserved for use in the spring. Optimum fertility and soil conditioning will help keep garlic healthy, and healthy garlic will withstand everything from GBN to Fusarium better than stressed, unhealthy garlic.

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Contents

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are possible. Some materials may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in NYS must be registered with the NYS Dept of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide usage in NYS should be directed to the appropriate Cornell Cooperative Extension (CCE) specialist or your regional DEC office.

CCE and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products or companies is made or implied. **READ THE LABEL BEFORE APPLYING ANY PESTICIDE.**

Veg Edge is a shared publication of two Cornell Cooperative Extension teams, the **Cornell Vegetable Program**, serving 12 counties in Western & Central NY, and the **Capital District Vegetable & Small Fruit Program**, serving 11 counties in the Capital Region of NY

continued from cover

Next year, watch new seed closely: During the growing season, cull suspicious looking plants and have them tested for GBN. Selecting the most suspicious plants gives you the highest probability of detecting GBN, if present. If a seed certification program is developed, farm inspectors will take this step for you. Until then, you can act as your own informal inspector.

If seed turns out to be positive for GBN you can still sell it as food. Use your planting maps to help you avoid planting any area with infested garlic back into any Allium for four years. This is a best practice for garlic in general, so if you can move the whole garlic planting out of Alliums for four years that is the best option. After that time you should be able to safely plant garlic back into that ground. ■

Table 1. Cornell fertility recommendations.

Garlic	Nitrogen (N) Lbs/A	Phosphorus (P_2O_5) Lbs/A					Potassium (K_2O) Lbs/A				
Soil Test Results		**Very low <3lbs/A**	**Low 3-6**	**Medium 7-13**	**High 14-40**	**Very High >40**	**Very low <50**	**Low 51-100**	**Medium 101-200**	**High 201-300**	**Very High >300**
Incorporate at planting	0	200	150	100	50	0	200	150	100	50	0
Sidedress before emergence	25-50	0	0	0	0	0	0	0	0	0	0
Sidedress 2-3 times, 3-4 weeks apart	25-50 divided among sidedressings	0	0	0	0	0	0	0	0	0	0
TOTAL	50-100	150	100	75	50	0	150	100	75	50	0

Source: Cornell Recommendations for garlic, used by Agro-One Soil Lab. Based on use of a Morgan extract.

Ag Economic Development Specialist Joins the Team

Megan Fenton, CCE Ag Economic Development, Western New York

The Cornell Vegetable Program introduces Megan Fenton, Agriculture Economic Development Specialist, as the newest member of the team.

Megan Fenton, new CCE Ag Economic Development Specialist, WNY

Megan Fenton is a Penn Yan, New York native where she grew up on her parent's small farm. Megan received her bachelor degree in agricultural science from Cornell University in 2009. After completing her undergraduate degree Megan worked as a Sustainable Agriculture Educator for Cornell Cooperative Extension - Yates County. After that fruitful work experience Megan pursued graduate level coursework in agronomy at Tamil Nadu Agricultural University in Coimbatore, India.

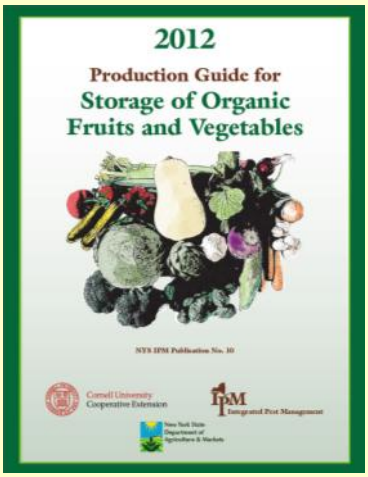
As Agriculture Economic Development Specialist for the Western New York Region, Megan will work with Judson Reid, Cornell Vegetable Program Specialist, on educational programs and research that will improve the economic sustainability of farmers across Western New York. Examples of this work include increasing farmers' access to markets, workforce development and supporting agricultural economic development projects. Megan will also be working with other Cornell Cooperative Extension regional teams such as the Northwest New York Dairy Team, the Lake Ontario Fruit Team and the Finger Lakes Grape Team.

If you would like more information, please contact Megan at (607) 793-1206 or mef46@cornell.edu

(Megan's position is part of a new Harvest NY pilot project in Western NY funded under a provision of NYS County Law 224-b that provides for regional extension programming. Dairy Processing and Modernization positions are also part of the pilot project.) ■

Produce Storage Guide

The 2012 Guide for Storage of Organic Fruits and Vegetables is now available free online from the NYS Integrated Pest Management (IPM) Program. Whether you're an organic grower or a conventional grower this resource should be of value if you hold or store produce. Go to: http://www.nysipm.cornell.edu/organic_guide/default.asp ■



Spotted Winged Drosophila - Forcing Growers to Evaluate Options

Laura McDermott, Capital District Vegetable & Small Fruit Program

(Note: While primarily a fruit pest Spotted Winged Drosophila flies have been found in cherry tomatoes in St. Lawrence County in the past week. ed. C. MacNeil, CVP)

Berry production in New York State has never been easy, as berries are highly perishable crops that require a great deal of hand labor. Until now however, blueberries, strawberries, raspberries and blackberries have been worth the effort as consumers valued locally grown, high quality fresh fruit. The onset of Spotted Winged Drosophila, *Drosophila suzukii*, (SWD) resulted in a significant loss of late season blueberries and has forced many growers to close fall raspberry fields well ahead of schedule to avoid selling infested fruit to customers.

SWD has been monitored throughout the state for most of the spring and summer, and was caught in very low numbers throughout most of the winter (2011-12) in Suffolk County, LI. In the beginning of July 2012, southern areas of the state started catching very small numbers of mature flies in vinegar baited traps and by the 3rd week in July most regions involved in trapping were finding specimens. Unfortunately, at the same time these first captures were being positively identified as SWD, researchers were finding larvae in fruit that was randomly being picked and examined for oviposition scars, etc. An initial discovery was that the traps were not capturing early fly presence. Within 2 weeks populations of SWD had risen dramatically so that most berry growers became aware of a problem before they knew what it was. In New England, single trap counts in a 1 week interval exceeded 3,000 individual flies. A map of sightings of SWD in NYS traps and/or fruit is available at http://hudsonvf.cce.cornell.edu/NY%20SWD%20Monitoring.html.

The adult flies lay eggs that mature rapidly, in optimum conditions in as little as 2 hours, and the resulting larvae quickly begin consuming the fruit. As the larvae grow, fruit quality rapidly deteriorates. Crops that are susceptible include raspberry and blackberries, cherry, peaches, plums, strawberries, elderberries and blueberries. These crops should be protected with insecticides as SWD has been in most areas across the state. Tomatoes, specifically cherry tomatoes, may also be a target for egg laying, but it is unclear if the eggs will mature in the less hospitable tomato fruit. Thin skinned grape cultivars may also be at risk. Many wild hosts such as pokeweed and autumn olive exist.

Spotted winged Drosophila damage on raspberry. *Photo: L. McDermott, Capital District Vegetable & Small Fruit Program*

When constructing a spray program, be aware of the re-entry interval (REI) and pre-harvest interval (PHI) for each material as these may not be the same from crop to crop. A maximum of 7 days should be allowed between sprays in order to interrupt the life cycle of this pest and slow the population growth. Growers should carefully evaluate their spray application equipment and prioritize investment in appropriate pesticide delivery tools.

Some cultural controls include clean picking and removing all culls from the field. Cull piles of apples and tomatoes, despite the fact that they are not a desired host, may also prove to be breeding grounds for SWD. Fruit that is harvested should immediately be stored in a cooler set as close to 32° as possible. Consumers should be advised that fruit should be immediately stored in the refrigerator. Fly exclusion using very fine insect netting like ProTek 80 may provide protection for small plantings and there is some literature implying that it is possible to use baited traps to trap-out adults. Given the incredibly large populations witnessed by this extension person, it is hard to imagine that this could be successful, but it may be a technique worth using in the future.

Farmers, researchers and extension personnel will be sharing information and developing research priorities this fall. At this juncture there are many questions and few answers but it is imperative to find successful management strategies for this serious threat to the berry industry. For more information about SWD, visit http://www.fruit.cornell.edu/berry/pestalerts/drosophilapestalert.html.

Recent 2(ee) pesticide recommendation Approvals – Spotted Wing Drosophila

The NYS Department of Environmental Conservation recently approved 2(ee) recommendations for the unlabeled pest Spotted Wing Drosophila for the following insecticides and crops:

- Malathion 8 Aquamul (EPA Reg. No. 34704-474) – for use on blackberries, boysenberries, dewberries, loganberries, raspberries, and strawberries;
- Brigade WSB Insecticide (EPA Reg. No. 279-3108) – for use on caneberries;
- Brigade 2EC Insecticide/Miticide (EPA Reg. No. 279-3313) – for use on caneberries;
- Entrust (EPA Reg. No. 62719-282) – for use on strawberries;
- Entrust SC (EPA Reg. No. 62719-621) – for use on strawberries.

Users must have a copy of the appropriate 2(ee) recommendation in their possession at the time of use. Copies of the above 2(ee) recommendations are posted to the "NYS 2(ee) Recommendations and Categories" website section http://pmep.cce.cornell.edu/regulation/2ee/index.html Also available soon on PIMS at http://pims.psur.cornell.edu.

Source: NY Berry News Spotted Winged Drosophila Special Edition http://www.fruit.cornell.edu/nybn/newslettpdfs/2012/nybn1108a.pdf ■

Impatiens Downy Mildew is Changing the Bedding Plant Scene

Margery Daughtrey, Cornell

(This article is aimed at vegetable growers who also grow bedding plants. There has been a lot of confusion about the ability of this disease to spread to vegetable crops. Only impatiens is susceptible to this particular downy mildew, however.)

The bedding plant industry is reeling from a disease that has developed with amazing speed on impatiens. In 2004 greenhouse growers in a few states noticed leaves curling on impatiens, and a white coating of spores on the undersides of the leaves. This was a downy mildew disease, caused by *Plasmopara obducens*. In the Northeast in 2011 tropical storm Lee and hurricane Irene provided the perfect environment for spread of the disease. This summer the collapse of impatiens in landscapes has been seen from Buffalo to Long Island. Infected impatiens show slight leaf yellowing and downcurling of leaves and then gradually defoliate.

Skillful fungicide rotation is essential for downy mildew management during greenhouse production, in order to prevent the development of resistance. Unfortunately there are no products available to homeowners that will effectively protect impatiens once they are planted, and this will affect the market for the crop. Growing plants that are not susceptible to this new disease is the obvious solution. Alternatives to promote for use in shady landscapes include plants such as begonias, coleus and New Guinea impatiens, which is not affected by the downy mildew. Only the *Impatiens walleriana* (including double-flowered impatiens) and *Impatiens balsamina* (balsam impatiens) are affected by the downy mildew.

A fact sheet is available describing the disease and treatments in the greenhouse at: http://e-gro.org/pdf/Bulletin_1-8_Impatiens_Downy_Mildew.pdf ■

Impatiens leaf with white coating of downy mildew. *Photo: Margery Daughtrey, Cornell*

Sustainable Ag Research & Education (SARE) Grant Deadlines

Partnership Grants: **November 1, 2012**
For farmers and their farm advisors/consultants to explore sustainable topics; awards up to $15,000.

Sustainable Community Grants: **November 15, 2012**
For community organizations making a direct connection between revitalization and farming; awards up to $15,000.

Farmer Grants: **November 27, 2012**
For commercial farmers who want to test a new idea that will improve sustainability; awards up to $15,000.

Go to the Northeast SARE website http://www.nesare.org/?utm_source=Northeast+SARE+Master+List&utm_campaign=ea75987802-fall_deadline_tickler9_12_2012&utm_medium=email for application materials. If you have questions that aren't answered in these materials, contact Northeast SARE at 802-656-0471 or nesare@uvm.edu. ■

Smart Marketing Includes Services & Relationships

Brian Henehan, Cornell

In agriculture, we have a tendency in marketing to focus most of our attention on the hard products we produce and bring to market - fruits, vegetables, meat, grains, milk, or cheese. Today's markets demand more attention to the services and relationships associated with marketing the actual product. The smart marketer is one who not only produces a high quality product, but also delivers needed services and builds effective relationships with customers.

We need to understand the distinction between a customer and the consumer. Our customers may actually be consumers if we are direct marketers. But usually a relationship with some type of intermediary customer, wholesalers, retail supermarket buyers, food service buyers, brokers, or processors is required to get the farm product to the consumer.

Who are you doing business with? If you are a direct marketer, know your consumer. Who are they in regards to: age, income, residence, family size, gender, ethnic group, etc.? What services will enhance your relationship with your consumers? If you are working with other types of customers, learn about their operations: sales, distribution, terms of trade, transaction protocols, etc. What information about consumers can they share with you, or you with them, to assist both of you in better serving them?

What makes your product superior? What will make your product more attractive to your customers or consumers? What will your product bring to the assortment of products your customer markets? What information can you provide along with your product (nutritional values, recipes, portion sizes, variety, etc.) to increase sales?

Where is your product going? How will your product hold up in transit? Will your product arrive in a package ready for store display or use in the kitchen? Are there any ways to make life easier for those who buy your products in regards to scheduling or delivery? Can you better coordinate shipping with other firms shipping similar products in your area?

When does your product need to arrive? How can you cut your customer's time spent receiving or handling your product? Are there ways to minimize the time your consumer spends doing business with you? For your consumer: convenient parking or check-out; for your customer: processing invoices or payment. Just-in-time delivery and automated inventory replenishment are becoming standard business practices.

Why should your customer do business with you in regards to the services you offer and the value you bring to the business relationship? Why should you be considered a "preferred" supplier by your customer?

How will you better understand what services and relationships are needed to insure the effective marketing of your products? In a rapidly changing marketplace, those services and relationships are changing.

In summary, smart marketers not only deliver high quality products that are relevant to consumers, but must also provide valuable services to build effective relationships with customers. In the haste to produce the hard product itself, don't forget the needed services and relationships that will keep your product on the shelf, on the plate, or in the hands of consumers. ■

GleanNY, Donating Unmarketable Produce

Rebecca Schuelke Staehr, Michael Hoffmann and Miguel Gómez, Cornell

Many New York State residents experience food insecurity (i.e., households that were, at times, uncertain of having, or unable to acquire, enough food for all of the household members because they had insufficient money and other resources for food). The USDA estimated in 2009 that 12.9% of NYS households were food insecure. At the same time large amounts of food are wasted along the supply chain. The USDA Economic Research Service estimates that nearly a third of the total edible food available for human consumption in the United State is lost each year.

Gleaning may refer to collecting food from what is left in the fields after harvest or donations from farmers' packing lines and storages. According to American Farm Bureau, farmers in NYS donated about 3.6 million pounds to food banks in 2009. NYS leads the nation in farm donations to food banks. Do you occasionally have edible fruit and vegetables that can't be sold? Have you considered donating your produce? The only requirement to participate is that the donated produce must be food-safe and unspoiled. Produce does not have to be washed, graded, or packaged as for retail distribution.

Food banks have trucks on the road every day and they can stop by your farm to pick up product. If you have produce to donate, you can call your closest food bank to make arrangements. Food banks may have funds available to reimburse farmers. Donations may be tax deductible. For information about donating food, contact the Food Bank Association of New York State at (518) 433-4505, or http://www.foodbankassocnys.org/ find your regional Food Bank, and click on Contacts.

"Smart Marketing" articles review elements critical to successful marketing in the food and agricultural industry. Past articles are available at http://marketingpwt.aem.cornell.edu/publications.html ■

Apply for Organic Certification Reimbursement by October 31

Emily Cook, CCE - Ulster County

Organic farmers and processors are eligible for a reimbursement of 75% of their annual certification fee not to exceed $750. Reimbursements will be issued on a first-come, first-served basis until all funds are exhausted. The certification must be conducted by an organization accredited by the U.S. Department of Agriculture: Organizations Providing Organic Certification Services for Producers and Processors in New York State .

The reimbursement program is for farmers/producers and processors/handlers receiving their initial certification or renewing their certification for the period of October 1, 2011 through September 30, 2012. Applications should be submitted to the NYS Department of Agriculture and Markets by **October 31, 2012.**

Farmer/Producer Application Form: http://www.agriculture.ny.gov/AP/organic/docs/Producer-Application-Form.pdf
Processor/Handler Application Form: http://www.agriculture.ny.gov/AP/organic/docs/Processor-Application-Form.pdf
For more info: http://www.agriculture.ny.gov/AP/organic/reimbursement.html ■

US Contracted Processing Production Up 8% from 2011

From the 9/12 Vegetable Report, USDA National Ag Statistics Service, New York Office

The 2012 contracted U.S. processing vegetable production for the four major processing crops (snap beans, sweet corn, green peas, and tomatoes) is forecast at 17.2 million tons, up 8 percent from last year. Production of processing tomatoes, at 13.5 million tons, is up 9 percent from last year. Snap bean production, at 672,370 tons, is up slightly from last year's production. Sweet corn production, at 2.70 million tons, is up 3 percent from last year. Green pea production, at 350,490 tons, is 19 percent above 2011. Contracted area for harvest of the four major processing vegetable crops, at 955,550 acres, is 5 percent above 2011. ■

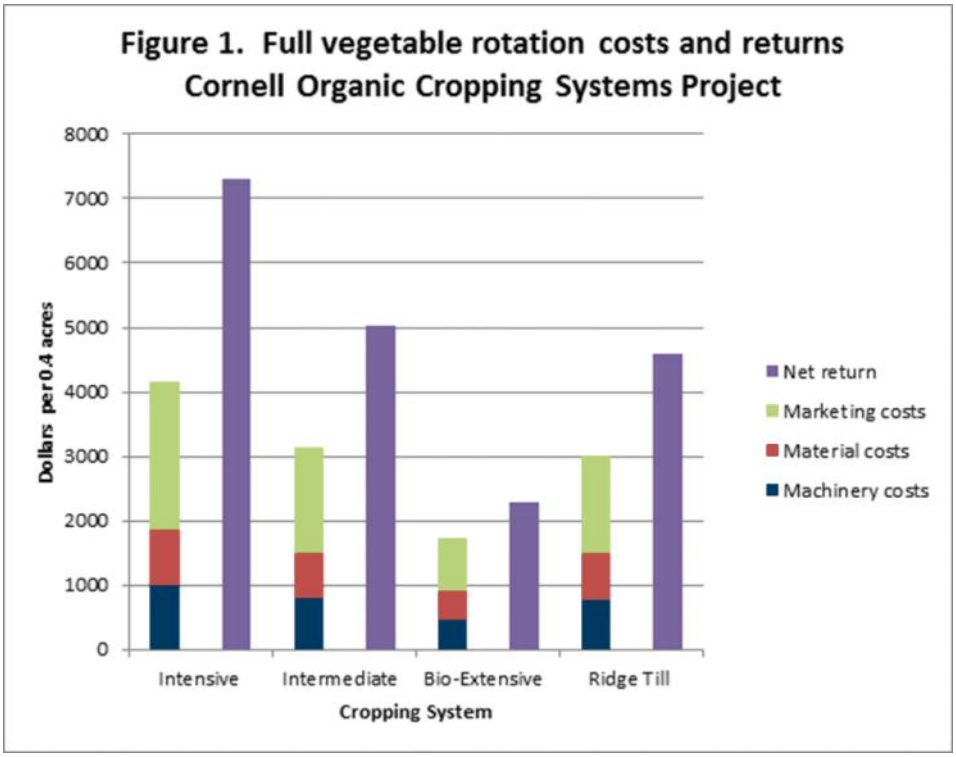
Cornell Organic Cropping Systems Profitability Analysis

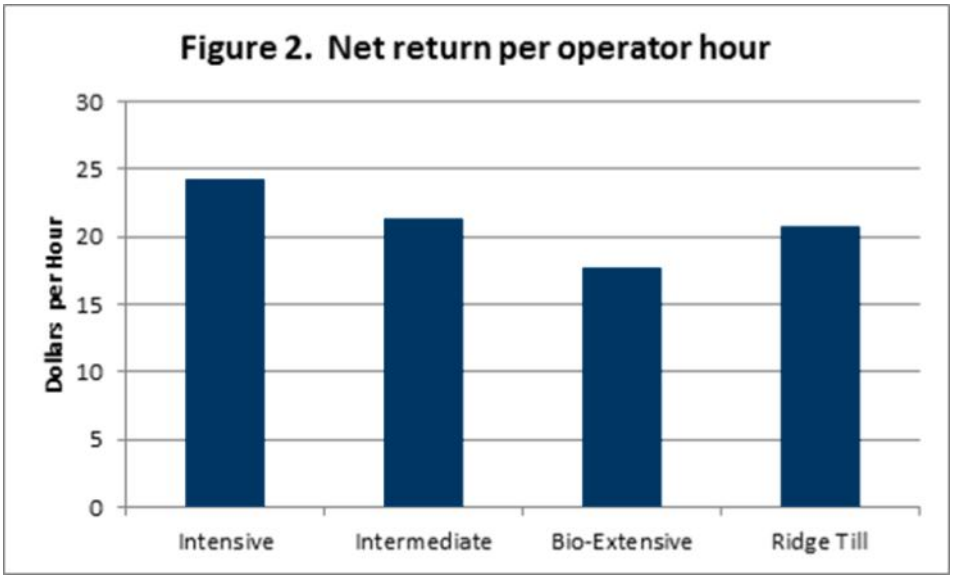
Brian Caldwell, Cornell

The Cornell Organic Cropping Systems Project has conducted profitability analysis of differing organic production systems through 4 -year rotations with the main cash crops being winter squash, cabbage, lettuce and potatoes. It is targeted toward small operations of less than 6 acres. These farms are fairly common in the Northeast but little economic work has been done on them.

Four organic production approaches ("systems") were compared. They vary in intensity from 6 cash crops in 4 years (Intensive) to 2 cash crops in 4 years (Bio-extensive). Use of cover crops follows the opposite trend, with no legume cover crops in the Intensive system and heavy use of them in the Bio-extensive system. One system employs ridge tillage instead of conventional tillage. For details see: http://www.hort.cornell.edu/extension/organic/ocs/

The study compares yields and projected retail income with machinery, materials, and marketing costs. Net income per acre, net return per labor hour, and labor hours needed for each system were calculated. Some results are summarized below.





Our results indicate that the net returns vary widely across the different systems (Fig 1. The second bar of each pair is net return.) System 1, a high intensity system with double cropping in 2 of 4 years, generated the highest net returns per acre or per labor hour over the full rotation. Overall, the most striking result of our analysis is that whole farm net returns per hour (Fig. 2) were fairly similar across the four systems, even when yield and returns per acre differed widely. This result indicates that in the absence of constraints on land availability, organic cropping systems similar to System 2 (Intermediate Intensity) or System 4 (Ridge Till) that use cover crops to reduce weeds and improve soil quality may result in little loss of net return to labor for small-scale producers.

For the full article, see the Cornell Organic Cropping Systems Project website http://www.hort.cornell.edu/extension/organic/ocs/

(The article is based on Economic Performance of Organic Cropping Systems for Vegetables in the Northeast. Journal of Agribusiness 29(1): 59–82, 2011, published by S. Chan, B. Caldwell, B. Rickard, and C. Mohler, Cornell.) ■

Upcoming Meetings

Caterpillar & Quick Tunnel Workshop

Thursday, October 18

9:00 am - 2:00 pm

Bowman & Hill Micro-Farm
2068 Kent Rd, Kent 14477

Join us for a hands-on training from experienced growers who made their own quick and caterpillar tunnels. These tunnels are used for late season, over-winter, and early season production.

Pre-register by contacting Robert Hadad at 585-739-4065 or rgh26@cornell.edu.

Northeast Beginning Farmers Online Courses

5 – 7 week courses for growers in their first 10 years. Cost is $200 each. Go to: http://nebeginningfarmers.org/online-courses/

November

BF 102: Markets and Profits – Exploring the Feasibility of Your Farming Ideas
BF 122: Berry Production – Getting Started with Growing and Marketing
BF 201: Making Money – Pricing, Positioning, and Writing Your Marketing Plan

January

BF 104: Financial Records – Setting up Systems to Track Your Profitability
BF 121: Veggie Farming – From Season-Long Care to Market
BF 203: Holistic Financial Planning – Building Profit into the Picture

March

BF 103: Taking Care of Business – Understanding the Business, Regulatory, and Tax Implications of Your Farm
BF 105: Machinery and Equipment – Evaluating What's Right for Your Operation

Cover Crop Tour

Thursday, November 15

USDA-NRCS Plant Material Center
3266 Rt 352, Big Flats 14814

For agenda, pre-registration and directions, go to: http://events.r20.constantcontact.com/register/event?oeidk=a07e6elpb3817b400b3&llr=7ex5qzeab or contact Paul Salon at: paul.salon@ny.usda.gov or 607-562-8404.

Processing Sweet Corn, Snap & Lima Beans Advisory Meetings

Tuesday, December 11

10:00 am Sweet Corn
12:30 Snap and Lima Beans

Jordan Hall Auditorium
630 W. North St, NYSAES, Geneva

A complimentary lunch will be served at noon. DEC and CCA credits will be available. No registration is required and the meetings are FREE.

For more information, contact Julie Kikkert, 585-394-3977 x404 (office), 585-313-8160 (cell), or jrk2@cornell.edu.

Processing Beet, Carrot & Pea Advisory Meetings

Thursday, December 13

10:00 am Beets and Carrots
12:30 Peas

Batavia First United Methodist Church
8221 Lewiston Rd (Rt 63), Batavia

A complimentary lunch will be served at noon. DEC and CCA credits will be available. No registration is required and the meetings are FREE.

For more information, contact Julie Kikkert, 585-394-3977 x404 (office), 585-313-8160 (cell), or jrk2@cornell.edu.

Agribusiness Economic Outlook Conference

Tuesday, December 18

Statler Hall, Ballroom, Cornell, Ithaca

Experts will discuss the short-and long-term outlook for agriculture and ag products. Breakout sessions will concentrate on dairy, grains and feed, and horticultural products in the afternoon. Info: Carol Thomson at 607-255-5464; cmt8@cornell.edu or http://dyson.cornell.edu/outreach/ag_outlook_conference.php

Potato/Tomato Late Blight and Potato Pink Rot

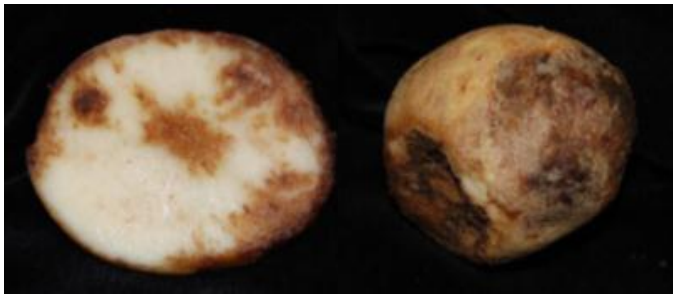
Carol MacNeil, CCE Cornell Vegetable Program

Late blight (LB) continues to be found in more tomato/potato fields and more counties in NYS and the rest of the Northeast. It has been confirmed in the following CVP counties: Allegany, Cattaraugus, Onondaga, Ontario (new) and Wayne, and in adjacent counties of Chautauqua, Wyoming, Livingston (new), Steuben and Tompkins. All the LB confirmations have been US-23, aggressive on both potatoes and tomatoes, and sensitive to mefenoxam (Ridomil fungicides and OLF). Continue applying fungicides regularly until no green leaves or stems remain. This is the time of year with long dew periods so don't stretch the interval beyond 7 days. Scout for LB regularly, especially near tree lines, wet areas, or where getting good spray coverage is difficult.

If you think you may have LB contact Carol MacNeil at crm6@cornell.edu or 585-313-8796, or Chuck Bornt at cdb1@cornell.edu or 585-859-6213, or another Vegetable Specialist. Hot spots of infection should be killed immediately. Once 5+ percent of the foliage is infected no fungicides can stop the development or spread except for mefenoxam (Ridomil and OLF), which is truly systemic in the plant. If you abandon a tomato or potato planting for any reason kill the foliage ASAP to prevent LB infection which can spread to other fields, neighbors' fields. Vine kill with a fast-acting material, kill with a propane flamer, disc thoroughly to bury (tomato only) foliage. Do not compost any infected plant tissue. Cut staked tomatoes at the ground. Cover small areas securely with a black tarp.

LB tuber infection is firm, dry and granular. Tubers close to the soil surface may be at more risk of infection as LB spores wash into the soil. A brown to purplish spot appears on the surface, with reddish-brown decay extending unevenly as deep as an inch. Bacterial soft rot (BSR) often follows. If tuber blight is present don't disc the field. Tubers closer to the soil surface are more likely to be killed over winter, which also kills the LB.

Pink rot (PR) may also be seen as potato growers check or dig their crop, generally where PR has been seen in previous years. PR oospores can survive in the soil for many years. PR infected tubers are also firm but there's a distinct line between infected and healthy tissue. Also, infected potato flesh appears white when cut but turns salmon pink and then black over 30 – 60 min. BSR often rapidly follows. ■



Late blight infected potato tubers.
Photos: A. Gevens, U Wisconsin-Madison

Agricultural Youth Scholarship Applications Due in November

Sandra Prokop, New York Farm Bureau

Sponsored by the NY Farm Bureau Promotion & Education Committee, these scholarships are for high school seniors. Scholarships range from $100 for county winners to $1,500 for the state winner. Students should be planning to prepare for a career in some way connected to the diverse agricultural industry, or must live or work on a farm or be involved with agriculture in any way.

Applications and info are available at: www.nyfb.org or by calling 800-342-4143. ■

Now is the Best Time for Soil Testing!

Carol MacNeil, CCE Cornell Vegetable Program

Fall is the best time to sample soil for pH and nutrient testing. Testing should be done at least every 3 years, and recommendations followed, to ensure proper pH and nutrition for your crops, and to limit expensive over-fertilizing. Take at least 10 sub-samples from across a 20 acre field, as deep as you till, mix thoroughly with a trowel, air dry a pint sample if necessary, package and send for testing.

Potato growers are often hesitant to lime because of their concern with increasing scab on tubers. If your pH is very low, however, many major nutrients are tied up, including phosphorus and nitrogen, and toxic levels of manganese and aluminum can become soluble. Unless you're growing crops that require a higher pH, it's best to maintain pH on potato fields between 5.2 and 5.4, both for muck and mineral soil. If there are areas where crops were stunted or yellow check the pH there separately as the pH could be much different from the average. If lime is needed apply ½ ton/acre this fall and incorporate.

To get Cornell fertilizer recommendations and soil tests equivalent to those done previously at the Cornell Nutrient Analysis Lab, use the AgroOne – Dairy One Agronomy Testing Lab at: http://www.dairyone.com/AgroOne/soiltesting/default.htm Click on Soil Submittal Forms, then on V or V2 for Vegetables in the left menus. Or call 800-496-3344 or 607-257-1272. Questions? Contact mark.joyce@dairyone.com ■

Kill Perennial Broadleaf Weeds this Fall

Carol MacNeil, CCE Cornell Vegetable Program

Note: This reminder is especially important for those using zone tillage or no-till. You don't have the option of plowing to bury your perennial broadleaf weed problems, and perennial broadleaves are usually not killed by spring translocated herbicide applications. Kill them now!

Perennial broadleaf weeds are most easily killed in the fall after crop harvest when these plants are moving nutrients down to the roots. Translocated herbicides applied in the fall have a route down to the roots where they can do their job. In the spring perennials move plant nutrients up to the leaves from the roots. This leaves translocated herbicides up in the foliage with no route down to the roots. Perennial weeds should have green, vigorous growth when sprayed. You may need to wait after harvest for regrowth. Temperatures (day and night) should average 40+ degrees for the herbicides to work, albeit slowly. In a severe infestation treatment may need to be repeated next fall. According to Robin Bellinder, Cornell, 2,4-D mixed with Clarity is particularly effective on bindweed and Canada thistle, while glyphosate works better against horsenettle and milkweed. Glyphosate plus 2,4-D is recommended for dandelions. With combinations lower herbicide rates can usually be used. Check labels carefully for specific weed problems and rates for combinations. ■

Do You Have a Cell Phone Use Policy?

Chuck Schmitt, CCE Albany County, Source: Capital District Growing Trends, Vol. 16 Issue 7

Do you have a cell phone use policy? If you don't, these little hand held devices may be costing you a lot of money. Are you an employer who provides your employees with a phone for work use and you cover the cost? Or, do you have employees who own their own phone and use it on your time? Either way cell phones used on the job may be costing you more money than you think, especially in time wasted; unproductive time; time you as an employer are paying for.

Today's young people were brought up in, and continue to thrive in, a very complex, fast moving world. Generation X, Y and Z'ers (17-40+ year olds) are all soon to enter, or are already in the workforce. Those young workers born after 1980 (Gen Y) are also referred to as the Net or Millennium Generation. They are very comfortable with technology and the internet is where and how they communicate. The Gen Z workers, born after 1995, have never experienced life without the instant gratification of the internet, computers or mobile phones. They are also known as Digital Natives as they are used to instant answers and satisfaction via constant internet access. They are often frustrated if they have to wait for an answer, especially if it is due to an "old" or otherwise "slow" computer.

Today's phones are not just for calling people anymore. Smart phones are 4G internet-capable hand held computers that occasionally make phone calls. In light of this, let's consider some of the statistics that marketing savvy people track. 82% of the adult population owns a cell phone. 52% have over 300 friends on Facebook; the top 10% have over 1,000 friends. 40% visit Facebook more than 10 times per day. 67% access Facebook from their smart phone and 59% reported visiting Facebook during class while they were still in school, so why should we think that this trend would not carry over into their work life? 58% of Gen Y & Z'ers say they use Twitter "all the time". 75% say they upload photos via a mobile device. And then we have text messaging. Texting has now taken over as the number one way young people communicate; most would rather text than call their friends on the phone. 50% of the 17-24 years olds surveyed send 50 or more text messages a day, that's 1500 texts a month, 33% send 100 a day or over 3,000 a month. 15% report sending over 200 texts each day! Research shows that males send and receive around 30 texts each day while females come in closer to 80 a day.

What I find alarming in the workplace is this: 38% of those surveyed said they could not go more than 10 minutes without checking their digital device - 10 minutes is 6 times an hour or nearly 50 times in an 8 hour work day. **How is anyone able to get any work done?**

And what about when your employees are driving a commercial vehicle? No driver is to be using a handheld phone while operating a motor vehicle. Statistics have shown that dialing a hand-held cell phone while operating a commercial vehicle results in approximately six times more accidents. Driving is defined as operating a vehicle on a highway, even while stopped at a light or held up in traffic. Remind your employees that they should not answer their phone while driving, even if it is a call from the office, unless the vehicle is safely pulled off the road and stopped.

We have policy manuals that cover our personal appearance, meals and breaks, employee benefits, and our operational policies. If you haven't already done so, maybe it's time to add a page on cell phone use during regular work hours? Make sure you have policies in place to protect your employees from injuring themselves and the company they represent.

Sources:
Latterell, Jeff, "Are You Using A Cell Phone While Driving a Commercial Vehicle?" The Scoop, Volume 35, Number 6, pg. # 30, June 2012.

Walter, Ekaterina, "Number Crunching: The Top 51 Stats for Generation Y Marketers", Social Media, Part Of The Next Web Family, 2012. ■

Nutrient Management in Fresh Market Tomatoes

from Focus on Tomato, Plant Management Network

This webcast by Josh Freeman, Virginia Tech University, helps growers ensure their tomato crops have the correct amount of nutrients in the correct placement at the correct time. Providing the proper amount of water for nutrient uptake and plant growth is also covered.

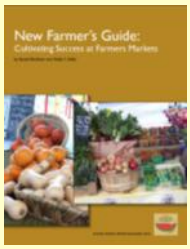
This presentation has free and open access through November 30 and can be viewed at http://www.plantmanagementnetwork.org/edcenter/seminars/tomato/nutrientmanagement/

Other recent webcasts in Focus on Tomato are at http://www.plantmanagementnetwork.org/fot

To view older webcasts, other PMN resources sign up for the free online newsletter at http://www.plantmanagementnetwork.org/update/default.cfm

Focus on Tomato is a publication of the Plant Management Network (PMN), jointly managed by the American Society of Agronomy, American Phytopathological Society, and Crop Science Society of America. ■

New Farmer Market Guide: Cultivating Success at Farmers Markets



This guide covers every aspect of selling at farmers markets, from determining readiness, to researching local farmers markets, to planning and budgeting costs.

For the *Guide to Farmers Markets*: http://www.davisfarmersmarket.org/new-farmers-guide/New%20Farmers%20Guide-v9.pdf

The guide was funded by a USDA Farmers Market Promotion Program grant, in partnership with the Davis Farmers Market, to plan, open and operate the Sutter Davis Hospital Farmers Market. ■

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Visit our website at http://cdvsfp.cce.cornell.edu

If you have questions or comments about this publication or the Capital District Program in general, please contact your county's grower advisory member or the Agricultural Program leader of your local Cornell Cooperative Extension office.

Dates to Remember…

October 18 - Caterpillar & Quick Tunnel Building Workshop 9:00 am - 2:00 pm, Bowman & Hill Micro-Farm, 2068 Kent Rd, Kent, NY 14477, *page 9.*

November 9 - Small Farm Cultivation Equipment Workshop 12:30 - 4:00 pm, Honeyhill Farm, 6241 Price Rd, Livonia 14487. How do you know what cultivation equipment is right for your diversified vegetable operation? Which tine for which crop? This workshop will answer when, what, how, and why. Equipment will be on-hand to demonstrate the theories discussed. This workshop will be on-farm, so dress accordingly, rain or shine. $5 for CCE enrollees, $10 for non-enrollees. To pre-register or for more info, contact Robert Hadad at rgh26@cornell.edu or 585-739-4065. Directions: http://honeyhillorganicfarm.com/contact

November 15 - Cover Crop Tour 9:30 am - 3:30 pm, USDA-NRCS Plant Material Center, 3266 Rt 352, Big Flats 14814, *page 9.*

November 28 - December 1 - National Onion Association Annual Convention, Rancho Mirage, California. For information call the NOA at 970-353-5895.

December 11 - Processing Sweet Corn, Snap Bean and Lima Bean Advisory Meetings, Jordan Hall, NYS Agricultural Research Experiment Station, 630 W. North St, Geneva, NY, *page 9.*

December 13 - Processing Beet, Carrot & Pea Advisory Meetings First United Methodist Church, 8221 Lewiston Rd (Route 63), Batavia, NY 14020, *page 9.*

December 18 - Agribusiness Economic Outlook Conference Statler Hall, Ballroom, Cornell University, Ithaca, *page 9.*

March 20 - Soil Borne Pathogens and Root Disease Training for Vegetable Growers, Room Barton Laboratory A-134, NYS Agricultural Research Experiment Station, 630 W. North St., Geneva, NY. For more info contact George Abawi, gsa1@cornell.edu or 315-787-2374.

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