Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

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# Berry News

## Spring Berry "To Do" List

### Blueberries

- Blueberry growth should slow down – help it to happen by reducing and then eliminating water unless drought conditions prevail.
- Monitor plants for vigor. At this time of year, a weak, poor growing plant could mean that there are other problems including virus, dogwood borer or voles. A good look at the base of the plant will help you determine what is effecting your plants.

### Raspberries and Blackberries

- Monitor for spur and cane blight—plenty of infection out there and knowing now would help you control later.
- Check plants for crown borers. Adults look like large yellow jackets but are actually moths. Tell tale symptoms include wilting and yellowing.
- With the recent high temperatures, growers have found it difficult to keep up with the watering and have found some sunburned fruit in their fields. Blackberry harvest, with the exception of "everbearing" types is drawing to a close.

### Strawberries

- Plan to apply 20-30 lbs of actual nitrogen per acre by the middle of September on the June bearing plants. If the foliar test done after renovation calls for other inputs that is a good time to add them as well.
- Control grasses that have emerged with Poast or Select Max. Use the highest labeled rate of these herbicides for quackgrass control. Include 1 percent crop oil concentrate in the mix.
- If composite or legume weeds become a problem in late summer or fall, apply Stinger in a separate spray.
- Day Neutral strawberries should be monitored for tarnished plant bug and mites. Continue to remove runners into September. Look for curling leaves with yellow distorted edges that signify potato leafhopper damage. These pests can do a lot of damage to overall vigor.
- Keep Day Neutrals watered and continue with fertilizer throughout September. This is the fruiting season and plants should be receiving approximately 5# actual N per acre each week – preferably a little bit with each watering.

*ENYCHP technician Annie Mills working with Brian Samascott of Samascott Orchards in Kinderhook on a blueberry post-harvest trial using Fresh Market Packaging System bags.*

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## Berry Budgets Posted on Cornell Berry Website

*Dan Welch, Business and Succession Planning Coordinator, NY FarmNet/ NY FarmLink*

The berry budgets recently posted estimate production costs and returns for the berry crops in New York State in 2014. Each budget includes cost for the pre-plant, planting, and full production years. Members of the New York State Berry Growers Association reviewed the budgets to ensure they reflected actual experience on New York farms.

Labor is the largest cost on berry farms, representing 80% of the costs. With this in mind a labor and machinery budget was created for each crop and year. These budgets break down the costs for the tasks involved in growing berries, and can help to identify where there are opportunities to reduce costs or substitute machinery for labor. Budgets were based on typical production practices in New York State for strawberries, blueberries, and raspberries. The strawberry budget is for growers growing June-bearing strawberries in a matted-row system. For the raspberries a planting life of 10 years was assumed, and for blueberries the planting life was assumed to be 25 years. The establishment costs were spread out over the life of the planting in the production year budget, so growers can see how those costs can be recovered.

For additional production information, please see the other pages on the berry site or contact your local Cooperative Extension office. To avoid giving specific pesticide recommendations that might not be effective for a particular farm or situation, the pesticide costs were based on an average spray program from the Cornell Pest Management Guidelines for Berry Crops. If you need more detailed pesticide information, consult the guidelines or with Cooperative Extension.

Using data from the 2012 NYS Berry Pricing Survey, and the expenses from the enterprise budget, a breakeven analysis was developed based on different yield and price assumptions. This information can be found in the "Returns to Risk and Management" document. A grower can use this to determine the price they need to charge to cover all their costs at a given yield per acre, or to know what their crop should yield to begin making a profit at a certain price.

These budgets can be used as a guide for growers to determine production costs and returns for berry crops in New York State. The assumptions in the budgets may be different for each farm and area of the state because of variations in production practices, input costs, and prices received by growers. A "My Cost" column is included to the right of the sample costs in each budget. Growers can enter their actual costs for each item in the budget to get a more accurate picture of their true cost of production.

**Find budgets by visiting this website: http://www.fruit.cornell.edu/berry/budgets/index.htm**

*This work was supported by the New York Farm Viability Institute Project #AIC 12-00: "Building a Better Bottom Line for NYS Berry Growers"*

## New Source of Information for High and Low Tunnel Berry (and Other) Growers

Thanks to receiving a multi-state Specialty Crops Research Initiative grant, research and extension activities related to high and low tunnel berry production are taking a significant step forward.

The project, led by Eric Hanson at Michigan State University, coordinates a considerable amount of work on high tunnel berry production taking place at a number of institutions including Penn State.

Visit the Tunnel Berries.org project web site where you can find out more about the project and obtain information on sources and manufacturers of high and low tunnels, different brands of plastics, production of berries in both tunnels and the field, and plastics recycling efforts. There are links to videos on many of the above topics, and more information is being added as time goes on.

Please check the web site out, and feel free to submit any comments and suggestions for improvement!!

Thank-you to the Pennsylvania Vegetable Growers Association, the New York State Berry Growers Association, the Michigan State Horticultural Society, and the Minnesota Berry Growers Association for providing matching funding towards the grant.

*Research on this project is supported by the USDA National Institute of Food and Agriculture, Section 7311 of the Food, Conservation and Energy Act of 2008 (AREERA), Specialty Crops Research Initiative under Agreement 2014-51181-22380.*

# Quebec NASGA Tour

*Amy Ivy, ENYCHP*

This summer I attended the NASGA (North American Strawberry Growers Association) summer tour which was held in Quebec City in August. Although we mostly visited strawberry farms, we also saw a fair amount of raspberry production. Here is a pictorial overview of some of the tour highlights.

**Floricane raspberry production in bags**.

These floricane fruiting raspberries are grown in the field in coir-filled bags their first, vegetative year (Photo A). They are laid down and covered for the winter, with 2 layers of row cover. The next spring, they are moved under connected-gutter tunnels for their second year (Photo B), and then moved back out into the field their third year for vegetative growth only. These plants are grown for 4 years, providing 2 years of crops.

*Photo A – Floricane raspberries in coir-filled bags – Year 1. Photo by A. Ivy*

*Photo B – gutter connected high tunnels that house fruiting 'tall cane' raspberries. Photo by A. Ivy.*

**Long Cane Raspberry System**

These floricane varieties are grown using the long cane system. They are not full winter hardy so they are grown the first year in small 1.8 liter pots outdoors under a drip fertigation system (see photo). They are put into cold storage over the winter at just above freezing and brought out in shifts on 3 different dates: June 1, June 15 and June 30 to allow for different ripening dates, and potted into larger 10 liter bags to fruit under a connected gutter tunnel.

*First year – Long cane system 'nursery' bed. Photo by A. Ivy*

*The irrigation collection system for each trough in the first year nursery. The irrigation water is carried away and used to irrigate a row of trees planted as a windbreak on the farm.*

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# NASGA Tour Tips

1) One farm uses this 3-wheeled cart (left) to harvest into. The picker pushes it in front of him down the aisle as he harvests. One white bucket is for the seconds for jam, one is for culls, and the best berries go right into sale boxes set in the cardboard tray.

2) To the left is an air assist sprayer from Italy. The air flaps the strawberry leaves around as the spray is delivered through the boom nozzles, provided coverage to both leaf surfaces while using a minimum amount of spray.

3) Seascape is the variety preferred the most by Quebec growers. They are harvested for just one season before being replaced.

This grower steams his oat straw before applying it to kill any weed or oat seeds.

## Where to Find 2 Updated Posters to be Displayed at Your Farm Business

*Source: Penn State Extension*

Employers must often keep up with a variety of required government posters at their orchards, farms, or other places of business which can be daunting at times. Earlier this month, the U.S. Department of Labor changed two posters that employers are required to post in the workplace.

Every employer must post the Fair Labor Standards Minimum Wage poster, which explains the act. The poster must be hung in a place where employees can easily read it. In addition, the labor department has updated the Employee Polygraph Protection Act. This poster must also be displayed in a location where all employees can read it. New copies must be used. To find copies of the poster, go to the hyperlinks with each poster title (above), or visit the US Department of Labor, and search for both posters by name.

**A Note on Private Poster Services**

Private poster services can be helpful by selling a grower a large poster that contains either all possible state required labor posters or all of the Federal required labor posters in one large format. Some growers like this service because it relieves them of the responsibility of keeping up with poster revisions.

Unfortunately, buying from a poster service each year can be expensive especially when you consider that these posters do not change all that often. To add insult to injury there are a few poster services that might use dubious sales tactics like appearing to be a government agency and use drop boxes in that state's capitol to give them a state capitol address. We've have even been told that sales staff might threaten a grower that they will send out an "inspector" if they do not buy their poster.

So how can a grower keep up with the all the various posters? It's easier and cheaper than you think. For those of you with internet access you can simply check the Pennsylvania Labor and Industry website once or twice a year to see what posters apply to you and what you need at your operation. You can download and print any of these for free or you can call the number on that website (717-783-8794) and they will send you that poster for free.

If you want to do the same thing with the Federal Department of Labor posters you can go directly to the Federal Department of Labor website. If you have questions regarding the Federal posters call 1-866-487-2365. If you have questions regarding the Federal OSHA posters or want to order one free call 1-800-321-6742. To check on the latest revision date just click on the link for that poster and the latest revision date will be there.


## Effective Bindweed Control is all about the Timing

*Dan Welch, Business and Succession Planning Coordinator, NY FarmNet/ NY FarmLink*

*Source: Ontario Ministry of Agriculture, Food and Rural Affairs, Vol. 5, Issue Sept, 2014.*

Field and hedge bindweed are currently still flowering which means the window for the best control is still open (Fig. 1). Control by phloem mobile herbicides, glyphosate (eg. ROUNDUP or TOUCHDOWN TOTAL) or 2,4-D, will be the most effective at the early flowering to full bloom stage. Field bindweed has a very extensive root system that can reach a soil depth of seven metres and after six months of germination can produce over 260 metres of vertical roots and over 45 metres of rhizomes. Because of this extensive root system and ability to re-establish, a systemic herbicide that will translocate through the phloem, with the sugars, to the roots will give the best control. When bindweed is flowering, root energy reserves will be at the lowest and sugars will be translocating from leaves photosynthesising, through the phloem, to the roots and rhizomes. At this stage glyphosate and 2,4-D will be translocated to the roots and rhizomes and

*Fig. 1: Field bindweed in flower*

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*Fig 2 (left): Regrowth of field bindweed after herbicide application*

*Continued from page 3*

be the most effective in killing bindweed.

When applying glyphosate you can use a wick wiper, hand drip applicator or hand sprayer for spot application. With 2,4-D apply only on crops and their stage that are registered on the herbicide label. Control of bindweed will also be more effective if it is growing vigoursly.

Contact herbicides, such as paraquat (GRAMOXONE) and glufosinate-ammonium (RELY, CHEETAH) will provide above ground control but you will more than likely get regrowth (Fig. 2).

## Upcoming Events


**Thursday, October 27, 2016**
**GMOs: Distinguishing Fact from Fiction**

**Gardenworks Farm**
1055 County Route 30, Salem

Registration 6:30pm/ Program 7:00pm
Pre Registration is recommended

Dr. Margaret Smith, a plant breeder from Cornell University will explain the science behind genetically modified organisms and will frame the controversy and define the concerns surrounding this technology. In addition to her primary program emphasis on improving the genetics of corn, Dr. Smith strives to improve public understanding of plant breeding, crop varieties, and genetic engineering and increase awareness of the benefits that have been derived from genetic improvement of plants.

***Register online at www.sunyacc.edu/continuinged or by calling 518-743-2238***

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