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Berry News

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Berry Crop Update

The spring is progressing relatively slowly overall, although a few spots in the lower Hudson Valley are seeing advancing bud stages.

Jim O'Connell reports that the winter has been long and cold, but spring is finally here and the berries in the Lower Hudson Valley are responding to the recent warm temperatures. Blueberries are at bud swell and if temperatures continue on this warm trend, it may not be long before early green tip. Summer raspberries are also doing well, with the first set of leaf emergence. Strawberries are responding to the warmth, with new growth pushing through the straw mulch. There are some leaves slow to respond to the warm temperatures, as they are still nested in the crown.

Laura McDermott has been looking at berries predominately in Albany and the area just north. In this area it still looks like winter injury to blueberries will be mostly on lateral buds. There seem to be very good swell on terminal buds. The same may be true of brambles, although for those of you that are growing blackberries, you will likely experience large sections of canes with blind buds. The cold was just too sustained and deep enough that it may really hurt blackberry flowering.

Late April tasks include:

- Line up mulch for blueberries. Mulch should be applied as soon as you get all of the herbicides down. If you are NOT using herbicides, then apply mulch as soon as ground is dry – it will control weeds, conserve soil moisture and help disturb mummyberry fruiting bodies.



- Make sure trickle is working. Testing water now may not be that helpful, as spring water quality varies dramatically – but do make a note to test irrigation water in mid-June.
- Make sure dormant fungicide applications have been made.
- Apply Poast or other grass herbicide while the grass is actively growing and before it gets to be 6-8" in height.

Using Honeybees to Pollinate Blueberries

Source: *How to Succeed with Blueberry Pollination* by Rufus Isaccs, Michigan State University.

Full article available online: http://msue.anr.msu.edu/news/how_to_succeed_with_highbush_blueberry_pollination

Editors’ Note: *This small excerpt is just meant to remind you that bringing in pollinators could really help with fruit set. Blueberries are tough crops for most pollinators – so natural pollination isn’t always guaranteed. Prepare NOW to bring some additional help to the patch. As I look at some of the bud set – I’m not overly confident that we are going to have a wealth of flowers – so why not insure against poor flowering?*

Timing: Wait until bloom has started to bring in bees. Flowers of blueberries are generally less attractive to honey bees than other flowers due to the relatively low nectar reward. Because of this, it is best to bring in bees once the crop has started to bloom so that bees forage more on blueberries than other flowers. If brought in too early, bees may learn to forage elsewhere, reducing their focus on your crop fields. Move bees into blueberry fields after 5 percent bloom, but before 25 percent of full bloom.

Renting: If you are renting honey bee hives, you should expect to receive healthy and vigorous bees. A healthy colony contains around 30,000 worker honey bees and will have six frames of brood. Having weak hives will affect how much pollination the fields receive, so it is worth taking time to ensure you have strong hives. If you suspect weak colonies, talk to your beekeeper about getting additional hives or replacing them. One strong hive of 30,000 bees will provide better pollination than two 15,000 bee hives because there will be more worker bees that fly to visit flowers.

One way for growers to ensure they receive strong colonies is to establish a pollination agreement that lays out the grower’s expectations. This can include the strength of the colonies and how quickly the colonies will be taken out of the field after bloom. Example pollination contracts are available online.



Source: Michigan State University Extension

Stocking densities. Feral colonies of honey bees and abundant native bee populations used to contribute to blueberry pollination. However, mite pests have decimated the numbers of feral honey bee colonies, and many farms do not provide suitable habitat for native bees to survive in high abundance. This makes fruit production more dependent than ever on managed bees, so it is important to stock fields with sufficient bees to supply enough visits to flowers.

Table 1. Recommended stocking density of honey bees for highbush blueberry pollination (from Pritts & Hancock)

Variety	Honeybee hives/acre
Rubel, Rancocas	0.5
Weymouth, Bluetta, Blueray	1.0
Bluecrop	1.5
Elliot, Coville, Berkeley, Stanley	2.0
Jersey, Earliblue	2.5

Research and experience in blueberries has shown variation across northern highbush cultivars in their needs for bee pollination (Table 1) due to the relative attractiveness of different cultivars and their degree of self-compatibility. If fields are managed for maximum production and have higher flower densities and yield, increased levels of honey bee stocking may be needed.

While Table 1 shows 2.5 hives per acre for Jersey and Earliblue, some growers are using up to eight colonies per acre to ensure good pollination, even if spring weather is cool and there are only a few good days for honey bee activity. This can be considered a form of pollination insurance to make sure that whatever the spring brings there will be the best chance of good pollination. - LGM

Examine Strawberries for Winter Injury or Pest Problems

Winter injury often gets the blame for strawberries that emerge poorly from a cold winter. It is not uncommon for the plant to initiate growth and then collapse. When the crown is cut you are likely to see a brown, water soaked center – which is a result of berries attempting to initiate growth during a mid-winter warming usually because the amount of mulch did not keep them well insulated.

This year, our temperatures were consistently cold and most areas had a good cover of snow to help insulate plants even if the mulch layer was light. But for those plants that were not mulched well, or were in an extremely wind-blown area – plants may have dried out and suffered damage. If your plants are on a raised bed, consider that the roots along the side of the bed may have increased exposure because it is much harder to keep the mulch (and even snow) on a raised bed. I have even heard growers say that older plantings where cultivators have been used for several years seemed to have increased overwintering problems likely due to slight root exposure on the side of the slightly raised bed.

To check for root problems, allow a week or two after uncovering berries then go back and look at the plants. Make sure they are growing new leaves – and don't sweat the old leaves that may have insect, disease or slug damage, but keep an eye on the new leaves. If there is no new growth, dig up a few plants and look at the roots and crown. Look for discoloration in the crown and nice white roots. There are lots of causes for root problems, and I'll be talking more about them in coming weeks.

If there is new growth, are the leaves deformed and twisted? One increasingly common culprit is cyclamen mite. Cyclamen mites are extremely small – 1/100th on an inch – and are a shiny pinkish-orange color when mature.



Slug damage from last season on old, overwintered leaves.

Individual mites cannot be seen without the help of a dissecting scope, but sometimes you can see the egg masses along the mid-veins of newly emerging leaves with just the help of a strong hand lens.

The mite feeding occurs in the crown of the plant, so that the leaves are stunted and de-formed when they emerge. Later in the season the mites will also feed on blossoms causing berry malformation. The thought was that cyclamen mites tended to build-up in plantings and could be avoided if you rotated your plants judiciously after about 5 years, but a field study done several years ago indicated that many new plantings were infested. So you need to be checking new plantings judiciously.

The big problem with cyclamen mites is that they are REALLY hard to get rid of. Thionex shows the best efficacy as it kills mites and eggs, but it is a tough chemical. There is a 2(ee) label for Portal but it is a contact miticide that may stop feeding and egg laying but does not kill mites outright.

For organic growers cultural controls including avoiding infested stock and susceptible varieties such as 'Cabot'. Azahar (Azadirachtin), Saf-T-Side (petroleum oil), Suff oil x (petroleum oil) and Trilogy (Neem oil) are labeled for cyclamen mites in strawberries but limited efficacy data is available. See the Cornell Organic Guide for Strawberries for more information http://www.nysipm.cornell.edu/organic_guide/strawberry.pdf.

The temperatures so far this spring don't indicate an especially early season. If you feel like pushing blossom development (not necessarily my recommendation given how much I dislike frost protection) then cover the berries with row cover. But if you live in a particularly cold area, and early berries are not a necessity for your market, then think twice about covering them because it will push flower development forward by 7-10 days and might increase your frost woes. – LGM



Photo courtesy of the Cornell Berry Diagnostic Tool, <http://www.fruit.cornell.edu/berrytool/>.

Sign-Up Begins for USDA Disaster Assistance Programs Restored by Farm Bill

Agriculture Secretary Tom Vilsack announced recently that eligible farmers and ranchers can sign up for USDA disaster assistance programs restored by passage of the 2014 Farm Bill.

“We implemented these programs in record time and kept our commitment to begin sign-up today,” said Agriculture Secretary Vilsack. “To ensure enrollment goes as smoothly as possible, dedicated staff in over 2,000 Farm Service Agency offices across the country are doing everything necessary to help producers that have suffered through two and a half difficult years with no assistance because these programs were awaiting Congressional action.”

Enrollment also begins today for the Tree Assistance Program (TAP), which provides financial assistance to

qualifying orchardists and nursery tree growers to replant or rehabilitate trees, bushes and vines damaged by natural disasters.

Producers signing up for these programs are encouraged to contact their local FSA office for information on the types of records needed and to schedule an appointment. Taking these steps in advance will help producers ensure their application moves through the process as quickly as possible.

Producers have three to nine months to apply depending on the program and year of the loss. For more information, visit any local FSA office or USDA Service Center, or visit their website at <http://www.fsa.usda.gov/FSA/stateOffices?area=stoffice&subject=landing&topic=landing>.

Growing Day Neutral Strawberries

A really great fact sheet on growing [Day Neutral Strawberries in Western Washington](#) was released recently. Some of the timing information is not appropriate for our region, but much of it can still be helpful – plus the photos are great!

For more local information on DN strawberry production make sure to read the summary of Dr. Courtney Weber’s research on planting dates. This fact sheet can be found online at <http://research.wsulibs.wsu.edu/xmlui/bitstream/handle/2376/4912/FS132E.pdf?sequence=2>.



USDA Announces Release Date for the Final 2012 Census of Agriculture Report

Excerpt from USDA Press Release, April 9, 2014, full article available online at http://www.agcensus.usda.gov/Newsroom/2014/04_09_2014.php

The U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS) today announced it will publish the 2012 Census of Agriculture full report on May 2, at Noon ET. The complete data series will be available in multiple formats, including Quick Stats 2.0 – an online database to retrieve customized tables with Census data at the national, state and county levels.

When released, the 2012 Census of Agriculture will provide information at the national, state and county levels. The publication will include highly anticipated data on a range of topics, including agricultural practices, conservation, organic production, as well as traditional and specialty crops.

The final publication will provide more in-depth information than NASS released in February’s preliminary 2012 Census report on farms and land in farms, economics, and demographics. For more information about the Census, including the preliminary data, the Your Census. Your Story. interface, and access to the full 2012 Census report when released, visit www.agcensus.usda.gov.



Free Workshops on Managing Fertility, Water Quality, Irrigation and Media in your Greenhouse and/or High Tunnel

May 6 and 7, 2014 - 2 Locations

Dr. Neil Mattson of Cornell University specializes in growing crops in protected culture. Please join us to learn more about managing food crops in these systems. **Farms are encouraged to bring water samples for testing pH, EC and alkalinity or soil and substrate samples for pH and EC testing.**

- Tuesday, May 6, 4-6 pm at Fledging Crow Farm, 122 A. Robare Rd., Keesville, NY
- Wednesday, May 7, 3-5 pm at Ariel's Farm, 194 Northern Pines Road, Gansevoort, NY

The workshop is free, but registration is encouraged. Call Marcie at 518-272-4210 or mmp74@cornell.edu.



Professor Neil Mattson tests irrigation water alkalinity.

Farm Food Safety Training with GAPs: A Produce Safety Workshop

CCE Albany County, 24 Martin Road, Voorheesville, NY 12186

April 30 and May 1, 2014 from 8:30 am - 4 pm both days

Goals of this workshop: to understand how GAPs (Good Agricultural Practices) impact produce safety; to learn what is needed to have a USDA GAP/GHP audit and the 2 types (Harmonized & Basic); and to begin writing a farm food safety plan that complies with a USDA GAP/GHP Audit.

Growers participating in this training will receive: a flash drive pre-loaded with templates to use in writing your own farm food safety plan including templates of record keeping forms; Farm Worker Training CD; Food Safety Begins on the Farm: A Grower Self Assessment for Food Safety Risks ; and bag with lots of other resources.

Bring the following items with you on day 2 of the workshop:

- Laptop computer unless you reserved one of ours in advance
- A list of crops you want to be USDA GAP/GHP certified in (if planning to participate in an audit)
- Farm maps with fields outlined that contain crops to be certified
- If you have a packinghouse, bring a packinghouse floor plan that shows product flow from the time it enters the packinghouse until it leaves. Can be hand drawn and simple.
- A list of services you have contracted. This may include pest control, portable toilet rental/servicing, trucking/transportation, etc. and any recordkeeping documents they supply.

\$50/farm to attend (up to 2 people per farm) - includes lunch. Class size is limited so call now! For more information and to register call Cathy at 845-344-1234. Let us know if you any special dietary needs (vegetarian, nut allergy etc).

Co-sponsored by the NWF Local Economies Project, Cornell Cooperative Extension, the National GAPs Program, the Produce Safety Alliance, Cornell University, and the NYS Department of Agriculture & Markets

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