Berry ‘To Do’ List

—ALL CROPS—

- **Spotted Wing Drosophila** is still present in berry fields across the region, but populations may be levelling off due to slightly cooler temperatures. This week may bring nighttime lows from low 40’s to low 50’s across the region. That chill may really help keep SWD at bay. Unfortunately that doesn’t mean they will die. If you are doing salt flotation testing of fruit and trapping adults you may feel confident enough to stretch the spray interval by 2-3 days. For an interesting article on two new food grade products that might help fruit develop thicker skins and thus deter SWD, take a look at the July 2019 edition of Growing Produce.

- **Nematode testing** should be done now. Article in this issue explains how. Give me a call if you suspect nematode damage and have questions about testing – 519-791-5038.

—RASPBERRIES & BLACKBERRIES—

- Spent floricanes should be removed from summer fruiting types.
- No supplemental irrigation on raspberries in the fall unless we are in a drought. Fall bearing raspberries will still need occasional water to improve berry size.
- If you received your tissue test results, apply all non-nitrogen fertilizers as required.
- Some reports of summer raspberries flowering and fruiting now. This happens virtually every year. ‘Prelude’ is a variety that does it predictably and as my colleague Mary Conklin from University of CT explained to me recently, ‘Prelude’ is actually a fall variety marketed as a summer variety. They fruit on this year’s canes now and on the same canes early next summer. Many other fall varieties can do the same thing. This can be a bonus or a management headache!
- I haven’t seen much **Phytophthora root rot** this season – look for collapsing canes with a reddish root color – but if you do have it treat the affected area with Ridomil Gold, Alliette, or Phostrol in September or early October. The timing is important so don’t wait – material needs to be present (Continued on page 2)
before soil temps cool.

- Check plantings for crown borers. The adult moths look like large yellowjackets, and they are active and laying eggs now. Scout the fields for crown borer damage by looking for wilting canes — which is also a symptom of Phytophthora so take the time to dig up the root.

- Fall is an excellent time to control weeds with herbicides. Or you can try weed barriers like the landscape fabric in the photo at right.
  
  * Perennial weeds like thistle, dock, smartweed, and morning glory can be controlled by spot spraying with glyphosate, but take EXTREME caution to avoid getting herbicide on bramble canes. Burndown materials like Gramoxone Inteon and Scythe are not translocated like glyphosate. These can be used more safely but still take care to avoid contact with raspberry canes or leaves.

  * The window for grass control using grass herbicides like Poast has closed. The grasses are still growing but they are too large and the control just isn’t predictable.

  * Pre-emergent control of broadleaf weeds can be done with a late fall application of Casoron, Devrinol, Surflan, or Princep for preemergent control of broadleaf weeds next spring should be made. Apply Casoron in late fall when temperatures are below 40°F, preferably just before rain or snow. Most of these materials should only be used on established plantings, not newly planted fields.

—STRAWBERRIES—

- Manage leaf diseases now – the pressure is very high. Keeping June bearing plants healthy is important for good flower bud initiation for next years crop.

- Many growers are planting plasticulture beds in late summer to avoid excessive runnering. This may be a good strategy to consider.

- Nitrogen fertilizer should be applied in early September at the rate of 30-40 lbs N. The total amount for the season should be around 100 lbs of actual N. This time of year is actually very important because of flower bud initiation. All other nutrients recommended by tissue test can also be applied now.

- Controlling fall germinating winter annuals such as chickweed and shepherds purse is critical at this time of year. Devrinol (napropamide) is a pre-emergent herbicide that can cause problems with rooting of daughter plants so this material should be used after early forming daughter plants have rooted. Because daughter plants that form after late August don’t usually contribute as much to the yield, Devrinol can be applied without much effect at that time, but BEFORE winter annuals emerge. Devrinol must be moved into the soil by cultivation or water after application. Sinbar (terbacil) is a pre-emergent herbicide with some post-emergence activity. Usually Sinbar is applied after renovation or after the berries have gone dormant in the fall. If leaves are present during application, immediately apply 0.5-1 inch of water to wash the chemical off the strawberry foliage. Otherwise severe injury may result. Do not use Sinbar on soils with less than 2% organic matter. Sinbar is limited to 8 oz/A per growing season. Poast (sethoxydim) is a post-emergent, grass herbicide. This material works well applied in late summer or early fall to actively growing grasses. Don’t waste your time and the product on summer annual grasses.

- Seeing some DN strawberry decline. Give me a call if you are seeing plants that look like the photo at right.

—BLUEBERRIES—

- All blueberries in the region stopped picking by Labor Day weekend – if I’m wrong – give me a call! It was a good season but maybe not the best. The biggest take-aways that I have from this season is:

  * Spring rains (or irrigation) are imperative for both fruit and shoot growth. We aren’t watering enough at the right time of the year.

  * In general we need to be much more vigilant when it comes
Reduce Your Liability as an Agritourism Business

Elizabeth Higgins, CCE Eastern NY Commercial Horticulture

It’s fall, and many farms in Eastern NY are welcoming the public onto their farm. Opening up the farm to the public is a concern, because despite your best efforts to keep everyone safe, someone could get hurt and sue. In 2017 New York State passed the “Safety in Agricultural Tourism Act (N.Y. Gen. Oblig. §§ 18-301 to 18-303) which eliminates the liability of farmers for injuries and deaths to the public who are engaged in agritourism activities on their farm, if they follow specific steps outlined in section § 18-303 of the Act. New York State Department of Ag and Markets has issued guidance on complying with the law, including required language for signage. These are the key provisions of the Act that that must be followed in order to be covered by the liability protection of the Act:

✓ Posting a conspicuous Warning to Visitors sign, notifying visitors of the inherent risks relevant to the on-farm activity, the farm operation and site conditions. The farm operator is responsible for developing this sign and taking reasonable care to prevent reasonably foreseeable risks to visitors.
✓ Distributing written information to visitors, with language specified by the Department of Agriculture and Markets, directing the attention of all visitors to the required Warning to Visitors sign. The language is available at this link: [https://www.agriculture.ny.gov/Press%20Releases/Inherent_Risk_Guidance.pdf](https://www.agriculture.ny.gov/Press%20Releases/Inherent_Risk_Guidance.pdf)
✓ Posting directional signage and identifying “off limits” areas.
✓ Posting a conspicuous notice at every point of sale or distribution of tickets that visitors have certain responsibilities identified in the General Obligations Law.
✓ Posting a conspicuous notice to visitors of the right to a refund for those unprepared or unwilling to accept the inherent risks of the on-farm activity or to the duties of reasonable care imposed on the visitor.
✓ Providing adequate training to employees.

So how do you know if you are compliant? In their guidance, Ag and Markets specifically states that a “one size fits all” approach is not adequate for signage and training. Your warnings and your signage should reflect the risks on your farm. For example, a farm offering a hay ride will have different risks than a farm that allows children to feed animals or a PYO apple farm. Reasonable hazards could include heat exhaustion, bee stings and tripping hazards. Ag and Markets recommends that farmers work with their insurers or lawyers to perform a risk assessment for their specific farm business. NYCAMH would also be a good resource for assistance. Also be sure to document any trainings that you offer your employees. Have them sign in and keep a copy of the training materials or agenda in your records.
Nematodes are microscopic eel-like worms that live in soil and water. Most soil dwelling nematodes are beneficial organisms that play a role in the breakdown and release of nutrients from organic matter.

Several species of nematodes live and feed on plant roots. These plant parasitic nematodes possess a hollow stylet, which is forced into plant cells. Enzymes are injected to decompose the cell content. The nematode withdraws the partially digested cell contents through the stylet.

Root lesion nematode is the most common nematode pest on strawberry and raspberry. During the growing season, root-lesion nematodes live and feed inside plant roots. When the plants and roots die in the autumn, they move out of the root into the soil. Strawberries and raspberries will look unthrifty. (Fig. 1)

On raspberries, dagger nematode is another important nematode pest, because it is a virus vector.

Signs of nematode injury: In raspberries, nematode feeding causes plants to decline over time. Canes get shorter and weaker. Plants are poorly rooted and can be easily pulled from the soil. Primocane growth becomes sparse.

Nematode-infested strawberry fields show uneven growth across the field. Plants are stunted or weak in patches, next to apparently healthy vigorous plants. Some varieties are more susceptible than others to nematode damage. New plantings decline more quickly than normal.

Roots of infected plants may show brown flecking, larger brown lesions, or black root rot (Fig. 2). Nematode feeding can cause young white roots to be stubby and swollen, or excessively branched (Fig. 3).

Nematodes are often associated with soil borne diseases, such as verticillium, or black root rot. Damage caused by root lesion nematodes provides infection sites for disease causing fungi.

Sampling for nematodes: Nematode populations can be estimated by sampling soil, and plant roots. The samples can be processed at the Pest Diagnostic Clinic in Guelph, 519-767-6256. For submission forms and a fee schedule, visit their web site.

Late summer and fall are good times to sample soil for nematodes. Populations are generally highest in May-June and September-October. However, nematode samples can be collected any time as long as the soil is not frozen.

Soil should be sampled approximately 8 inches deep using a 1-inch soil diameter soil core probe, or narrow-bladed shovel. Discard the top 1-2 inches of soil. Include the feeder roots of the crop in the soil sample, since this is where many nematodes live. Do not sample the roots of dead plants since the nematodes will have already died or moved away from dead roots into the soil.

Mix soil cores thoroughly but gently in a bucket. Place a sub-sample (1/2 - 1 litre) in a plastic bag. Keep cool and out of direct sunlight during transportation to the diagnostic lab.

To diagnose a problem during the growing season, take 8 to 10 soil cores from areas where plants are unhealthy, or along the margin of a severely affected area. Another 8 to 10 soil cores from areas of healthy growing plants should be sampled separately for comparison.

To estimate nematode populations in a field, soil cores should be taken within the row of actively growing plants to obtain samples that contain feeder roots. Walk in a Z, W or M pattern across the field. The soil sample should represent no more than 2.5 ha.

Figure 2: Strawberry roots showing flecking and brown lesions caused by root lesion nematode.
At the end of 2017, Sandy Gordon spent six weeks helping Joshua Rockwood move his entire farming operation across about 30 miles of upstate New York.

“Josh had 65 head of cattle and draft horses and pigs and chickens,” Gordon said. “We had two trucks and trailers going. We were moving cattle until eight o’clock at night.”

Gordon, 64, was happy to help, because after listing his farm on Craigslist in cities around the world—from Boston and New York City to Miami, Seattle, and Hong Kong—and trying various land-linking websites, he had finally found a young farmer he felt he could trust to steward the land he had been planting and grazing on since 1983.

Rockwood was committed to organic practices and to building soil health via rotational grazing, just like Gordon. “The preservation part was key, and I wouldn’t have sold if it wasn’t a part of it,” he said.

Gordon and Rockwood represent two groups of farmers that are especially important to the future of American agriculture: those who are aging out of farming and have land to sell, and those who are young and hungry for land.

Helping these two groups find each other in order to make sure the land stays in farming has become a hot-button agriculture issue. The average age of the American farmer is now hovering around 60 (it was 58 at the time of the 2012 census). As a result, a significant amount of farmland will change hands in the next decade — and that crucial, often delicate transfer has become the focus of many “land linking” services across the country.

The program that linked Gordon and Rockwood—Hudson Valley FarmLink Network (HVFN)—is being held up as a model of success by many organizations and advocates, and its approach will now be implemented across New York State. Last October, the national group that launched HVFN, American Farmland Trust (AFT), announced a new land-linking program called Farmland for a New Generation New York, funded by $400,000 in state funds for the first year as part of a larger state investment in farmland protection.

“This [comes] out of a researched effort to make sure that we are meeting the needs of farmers across New York State,” said AFT’s New York state policy manager, Samantha Levy. “We’re really taking the lessons from Hudson Valley FarmLink Network and applying them statewide.”

Those lessons can be boiled down to a few key points: While listing

(Continued on page 6)
land owners and seekers is important, it’s adding boots-on-the-ground work to that service that really makes the magic happen. That kind of connection requires significant funding, however, which is usually lacking.

The Limitations of Land-Linking Programs

At face value, the idea is simple: create a database where people looking for farmland in a particular region and people selling it in that same area can find each other.

There are highly regarded organizations across the country that have done exactly that—like California FarmLink, and New England Farmland Finder—while also providing land access resources like workshops, loans, and help with leases. The farm-link programs across the country have had varying degrees of success, though, because matching a farmer to land is much more complicated than it seems.

“I hear a lot of ‘I’ve got this farmland, why can’t I find young farmers to buy it?’” said Holly Rippon-Butler, land access program director at the National Young Farmers Coalition (NYFC), noting that a lot of land that changes hands doesn’t even go on the market, and finding out what’s available is just the first step. On the other side, she hears, “Okay, there’s land, but does that land have irrigation? A barn? Housing? What’s the soil quality like?” There are all these factors that start to narrow down the pool.”

That’s before cost is even considered. For older farmers, their land is often their one real financial asset and they are drawn to the highest bidder; for younger farmers, the cost of land is often prohibitive.

For all of these reasons, the little research that has been done on land linking programs shows limited success. In one 2014 study on 17 programs in the Northeast, the majority of land seekers rated the services as helpful, but only 7 percent actually secured land through a program. And most of the programs reported that they typically make fewer than 10 matches per year.

Seasoned experts like Kathy Ruhf at Land for Good, who has been working on the issue for about 30 years, cited similarly low numbers. “I have a database of about 60 [land link programs],” she said. “If we were to say ‘How many farms got hooked up with farmland on all of those?’ I would say a couple of dozen.”

Plugging in to Resources

The Hudson Valley Farmlink Network, on the contrary, says it has made close to 150 matches over four years, and advocates in the space point to it as a uniquely successful program. The special sauce is not in the network’s website itself (although some farmers did say it was more professional and easier to use than other similar sites), but in the way that individuals at local organizations bring the program to life.

Lee Hennessy, for example, was engaged in a long, frustrating search for land to house their goat dairy in upstate New York. They found the 46-acre farm they’re now running using the HVFN farmland finder, but when they first went to see the site, Hennessy didn’t think it would work. “I didn’t like that it’s all on the side of a hill, there’s no room for hay,” they said. “I was like ‘I don’t think this is for me. There’s so much I need to put together for this,’ and I couldn’t see it working at the scale I want.”

Hennessy was discouraged, and ended up on a farmland bus tour organized by the network. While they didn’t find new property on the bus tour, it introduced them to a world of resources, like fellow farmer Tim Biello, who runs the network and offered advice that led Hennessy to reconsider what was possible on the original property.

Those new connections also led Hennessy to the Hudson Valley AgriBusiness Corporation, which helped them access resources; Dirt Capital Partners, which purchased the land and leased it back to them with the option to buy in the future; and GrowNYC’s FARMroots program, which provided mentoring and legal help related to the leasing process. Suddenly, Hennessy said, it was like they had a whole team working for them.

Hennessy officially established Moxie Ridge Farm & Creamery in early 2017 and is now raising goats, pigs, and chickens. Recently, they snagged a spot at the coveted Union Square farmers’ market in New York City, thanks to the relationship with FARMroots.

“Once you find these organizations, it’s a tight-knit community of people who seem to work tirelessly to try to make this stuff happen,” they said. “It’s why I think the AFT project is such a big deal—they have the resources to support that.”

‘Navigators’ on the Ground

Building on that idea, $200,000 of the state funding for Farmland for a New Generation NY will go toward giving local organizations, dubbed “regional navigators,” more resources to interact with farmers and landowners.

“So much of this work is one-on-one work. It needs these navigators on the ground visiting farms with beginning farmers, doing the financial analysis to make sure they can afford it, helping them write a lease, etc.,” said Christopher Wayne, the director of FARMroots,
which trains and supports beginning farmers—especially immigrant farmers—in and around New York City. Wayne is hoping FARMroots will be named a regional navigator because the additional funding “will allow us to expand and increase that one-on-one support,” he said.

Organizations like FARMroots are especially essential to the success of HVFN because they help bridge the gap between what retiring farmers want to be paid for their land and what younger farmers can afford. Both Rockwood and Hennessy, for example, were able to secure their land by working with impact investment groups—Local Farms Fund and Dirt Capital Partners, respectively—that bought the land and leased it to the new farmer long-term, with options to buy down the road.

FARMroots often helps land seekers find those groups. It also has its own program to help farmers access capital: It works with microlending platform Kiva to get beginning farmers zero-interest loans, of which the organization contributes 30 percent from the get-go. Many of the other organizations involved in HVFN—such as Orange County Land Trust and Columbia Land Conservancy also work on conservation easements, another tool for getting land owners a good price while making it more affordable for seekers.

Making Matches Across the State

All of these elements could seemingly come together across the state and in other areas across the country to duplicate the model. But Ruhf said it’s also important to remember that the Hudson Valley is a unique locale for many reasons. Its proximity to New York City means resources (like impact investors and a plethora of organizations) and customers (via farmers’ markets, CSAs, and restaurants) are close by. Land is more expensive than in other parts of the state, but off-farm jobs are also more available.

Take Kama Doucoure as an example. Doucoure is a farmer from Mali who completed the FARMroots training program and an internship at Glynwood, a Hudson Valley nonprofit that focuses on saving farming in the Northeast, where staff helped him create a profile on the HVFN. Doucoure has been limiting his search to properties that will work for vegetables and livestock and that are within about an hour’s drive from NYC, where his wife works. After one property fell through, he was feeling optimistic about another. “I’m keeping my fingers crossed,” he said.

Farmers across the state will be doing the same as Farmland for a New Generation NY kicks off.

---

**FOR YOUR INFORMATION:**

**Blueberry, Strawberry and Raspberry Economic tools**

Dr. Miguel Gomez and his research team have been partnering with the New York State Berry Grower’s Association (NYSBGA) since early 2018 in efforts to better understand the economics that underlie the production and marketing of berries by New York State (NYS) growers. This research aims to help NY farmers become more economically competitive. The researchers surveyed and studied production practices and costs to develop an interactive tool for growers that allows them to compare their production costs to those of a representative grower in NYS. This tool allows farmers to not only separate their berry costs from the costs of other crops, but it also indicates potential methods of reducing production costs. You can access the economic tools here: [http://gomez.dyson.cornell.edu/research-projects.php](http://gomez.dyson.cornell.edu/research-projects.php)

Ongoing work by Dr. Gomez’s team includes surveying and analyzing marketing strategies across the state. Some of that research was conducted in the Capital District early this summer. The goal will be to provide a cost-benefit analysis of the various berry marketing channels used in the state. The team has also conducted an extensive review and analysis of available literature and data relating to United States berry production, consumption and trade. From this information, researchers will be developing a competitive analysis for the berry market generally and for each key berry-blueberries, strawberries, raspberries, and blackberries specifically.

**Strawberries facing an uncertain future**

An [interesting article summarizing a recent book](http://www.gomez.dyson.cornell.edu/research-projects.php) written by Julie Guthman: *Wilted: Pathogens, Chemicals, and the Fragile Future of the Strawberry Industry*. This book explains how strawberries became to be the fourth highest-grossing crop in the California, and how 88 percent of the strawberries in the United States are grown in California. It also explains the authors perspective on why this situation is rapidly changing.

**Overview of global berry market**

If you are interested in what’s happening to berries across the globe – [this article is an excellent snapshot](http://www.gomez.dyson.cornell.edu/research-projects.php) of what’s happening domestically and internationally to this very valuable crop. Publication date: 8/23/2019 by FreshPlaza.com
Deer Tick/Blacklegged Tick
_Tawny Simisky, UMass Extension_

Check out the archived FREE TickTalk with TickReport webinars available here: [https://ag.umass.edu/landscape/education-events/webinars](https://ag.umass.edu/landscape/education-events/webinars). The next live webinar will be held on October 9, 2019 with Dr. Stephen Rich of the UMass Laboratory of Medical Zoology. Previous webinars including information about deer ticks and associated diseases, American dog ticks and lone star ticks and associated diseases, ticks and personal protection, and updates from the Laboratory of Medical Zoology are archived at the link above.

Deer tick (_Ixodes scapularis_) nymphs (immatures) are active at this time, and may be encountered through August. For images of all deer tick life stages, along with an outline of the diseases they carry, visit: [http://www.tickencounter.org/tick_identification/deer_tick](http://www.tickencounter.org/tick_identification/deer_tick).

Anyone working in the yard and garden should be aware that there is the potential to encounter deer ticks. The deer tick or blacklegged tick can transmit Lyme disease, human babesiosis, human anaplasmosis, and other diseases. Preventative activities, such as daily tick checks, wearing appropriate clothing, and permethrin treatments for clothing (according to label instructions) can aid in reducing the risk that a tick will become attached to your body. If a tick cannot attach and feed, it will not transmit disease. For more information about personal protective measures, visit: [http://www.tickencounter.org/prevention/protect_yourself](http://www.tickencounter.org/prevention/protect_yourself). For a quick overview of skin repellents available to protect yourself from ticks, visit “Tickology: Skin Repellents” by Larry Dapsis of Cape Cod Cooperative Extension: [https://bit.ly/2J8J8l](https://bit.ly/2J8J8l).

Have you just removed an attached tick from yourself or a loved one with a pair of tweezers? If so, consider sending the tick to the UMass Laboratory of Medical Zoology to be tested for disease causing pathogens. To submit a tick to be tested, visit: [https://www.tickreport.com/](https://www.tickreport.com/) and click on the blue “Order a TickReport” button. Results are typically available within 3 business days or less. By the time you make an appointment with your physician following the tick attachment, you may have the results back from TickReport to bring to your physician to aid in a conversation about risk.

The UMass Laboratory of Medical Zoology does not give medical advice, nor are the results of their tests diagnostic of human disease. Transmission of a pathogen from the tick to you is dependent upon how long the tick had been feeding, and each pathogen has its own transmission time. TickReport is an excellent measure of exposure risk for the tick (or ticks) that you send in to be tested. Feel free to print out and share your TickReport with your healthcare provider. (Source: UMass Landscape Message, No. 18, August 23, 2019)


Have you just removed an attached tick from yourself or a loved one with a pair of tweezers? If so, consider sending the tick to the UMass Laboratory of Medical Zoology to be tested for disease causing pathogens. To submit a tick to be tested, visit: [https://www.tickreport.com/](https://www.tickreport.com/) and click on the blue “Order a TickReport” button. Results are typically available within 3 business days or less. By the time you make an appointment with your physician following the tick attachment, you may have the results back from TickReport to bring to your physician to aid in a conversation about risk.

The UMass Laboratory of Medical Zoology does not give medical advice, nor are the results of their tests diagnostic of human disease. Transmission of a pathogen from the tick to you is dependent upon how long the tick had been feeding, and each pathogen has its own transmission time. TickReport is an excellent measure of exposure risk for the tick (or ticks) that you send in to be tested. Feel free to print out and share your TickReport with your healthcare provider. (Source: UMass Landscape Message, No. 18, August 23, 2019)

---

**Calendar of Events**

**New England Fruit and Vegetable Conference**
December 10-12, 2019
Manchester, NH

This 3-day meeting has become a major event for diversified growers. Check out the conference program and register at: [https://newenglandvfc.org/](https://newenglandvfc.org/)

**Great Lakes EXPO**
December 10-12, 2019
Grand Rapids, MI

Another great conference! Register and review program at [https://glexpo.com/](https://glexpo.com/)

**Empire State Producers EXPO**
January 14-16, 2020
Syracuse, NY


**NOFA-NY Annual Winter Conference**
January 17-19, 2020
Syracuse, NY

This year at the Oncenter venue in Syracuse.

**Mid-Atlantic Fruit and Vegetable Convention**
January 28-30, 2020
Hershey, PA


**Eastern NY Fruit and Vegetable Meeting**
February 25-26, 2020
Albany, NY

Save the Date!