

January 2020

THE PRODUCE PAGES

Serving the fruit and
vegetable growers of
Eastern New York

Feature Farm Story

Northern Orchard Peru, NY

Elisabeth Hodgdon, CCE ENYCHP

I recently had the pleasure of interviewing Jenna Mulberry from Northern Orchard, located in Clinton County in the Northeast corner of our region. Driving around Peru, you know you're in "Apple Country". In almost any direction, you're bound to drive by rows and rows of apple trees or pass by a Peru town sign that features a bright red painted apple. Even though I'm a vegetable specialist on the team, I do work with apple orchards from time to time in the North Country, mainly for pesticide certification training and food safety. In my past year on the job, I've gotten to know Jenna and the vegetable side of their otherwise apple-focused operation. Jenna serves on our county

cooperative extension board of directors and on my personal mentoring committee, helping shape our county and region's extension programs so that they better serve the needs of our growers and general public.

Northern Orchard's history goes back to 1906, when four men from New York City moved to Peru and planted 90 acres of McIntosh apple trees and built the very first cold storage facility in the area. I hear that back then, the apple harvest really was an activity that involved the whole community. Women would pick in the orchards and pack

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Jenna Mulberry in the orchard with a photo of her grandfather, Marcel. Photo: E. Hodgdon

Cornell Cooperative Extension
Eastern NY Commercial Horticulture Program



The Produce Pages

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The *Produce Pages* is a monthly publication of the Eastern New York Commercial Horticulture Program. For more information about the program, please visit our website at <http://enych.cce.cornell.edu/>.

Serving the Educational and Research Needs of the Commercial Small Fruit, Vegetable and Tree Fruit Industries in Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Montgomery, Orange, Putnam, Rensselaer, Saratoga, Schoharie, Schenectady, Ulster, Warren and Washington Counties

(Continued from cover)

the apples, and children left school early help harvest. The apples were loaded into wooden barrels on ice and shipped down to the city. Jenna's grandfather, Marcel, a former agriculture teacher at the Peru School, began work as the orchard manager at Northern Orchard in 1945 and eventually became the owner. The orchard business was passed down to Jenna's father Al and mother Cynthia. After graduating from college in 2016, Jenna returned to the farm after studying agricultural business management at SUNY Cobleskill. Her older brother, Jesse, also returned to work at the orchard after graduating from Cornell University in 2014. This season, they harvested between 50-60 varieties of apples from over 400 acres of trees, mostly to wholesale through the Hunts Point Terminal Market in the Bronx.

The remainder of their produce is primarily sold through their roadside stand and to local restaurants. I'm always impressed with the diversity of produce I see when I visit the Northern Orchard farmstand. It's fun to work with Jenna because she's very open to growing new crops and varieties. At the height of the season, you can find several different types of plums, cherries, ground cherries, grapes, currants, and a rainbow of various vegetables at the farmstand in addition to the many apple varieties that they grow. Jenna has been working on cultivating relationships with local restaurants in the area as well and hopes that the trend to "buy local" continues to spread amongst the restaurant scene in our area. She loves introducing customers to new fruits and vegetables, and attributes her interest in growing new crops to her dad.

Jenna tells me that it's an "interesting" and sometimes challenging time for her to transition from school to helping manage the orchard. One of the most notable changes to the industry and on their orchard in recent years has been the transition to high density tree plantings, facilitating easier hand picking and (perhaps in the future) mechanical harvesting. One topic that often comes up when we see each other are new and emerging pest problems. In recent years, serious new challenges have arisen, including fire blight and spotted wing drosophila, which are game changers for fruit production. Additionally, new state labor laws are placing a heavy burden on the agricultural industry in New York as a whole. To adapt to these challenges, Jenna and her family are always looking for ways to be prepared and improve.



*Pumpkins for sale at the Northern Orchard farmstand.
Photo: Courtesy of Northern Orchard*

When I asked Jenna what advice she would give to "new" growers, one of the first pieces of advice she gave was for farm kids to seek experience working on other farms before returning to their home farm. I've heard this advice before. Working on different farms provides insight on how other people grow their crops, allowing you to bring back knowledge on how to improve on your home farm. For beginning growers, Jenna wanted to dispel the prevailing myth for many that farming is a romantic lifestyle. Running a farm involves wearing many hats and performing many different jobs in addition to growing fruits and vegetables, including many hours of recordkeeping and other office work, mechanics, and other tasks. It's a demanding job, and Jenna encourages new growers to make sure to take time for their mental well-being and social lives. Although farming is difficult and challenging, it can be highly rewarding at times. We talked about the trend toward more female farmers and farm managers in the Northeast, particularly on small diversified farms. Jenna wants to see the

same trend for larger wholesale agricultural businesses as well, like Northern Orchard.

My visit ended with me taking a peak at what the crew was packing that day in December. The most perfectly round, red 'Honeycrisp' apples were being packed up to leave the orchard, mailed all over the world for the holidays. Up here, we sometimes take for granted that we can get quality apples practically any day of the year. Jenna sent me home with a couple 'Ruby Frost' apples that were crisp and delicious, and I left really appreciating having an opportunity to learn more about the local history of

Peru, the Mulburys, and life in my new neck of the woods in the Champlain Valley.



*Picture perfect Honeycrisp apples packed up to be shipped all over the world during the Holidays.
Photo: E. Hodgdon*

Transitioning Orchards for Mechanical Hedging

Michael Basedow, CCE ENYCHP

Adapted from the Spring 2018 Fruit Quarterly article “New Advances to Narrower Canopy Systems: Transitioning from 3D to 2D Canopies for Fruit Walls—Part 3” by Mario Miranda Sazo

With the anticipated labor crunch from Albany’s new labor laws, there is now even more interest in finding ways to improve the efficiency of our labor-intensive orchard tasks. Whether it be pruning, hand thinning, or harvesting, mechanized self-propelled platforms may help increase the efficiency of work crews.

In order to get the most out of your investment in these platforms, future orchard systems should be designed with these units in mind. Platforms work very well in 2D fruiting walls, since they provide a uniform distance from where workers can perform their tasks. Not only will fruiting walls lead to an increased potential for mechanization, but fruiting walls can also provide more uniformity of fruit size and color by allowing more light penetration into the interior of the canopy.

While some new orchard blocks are now being trained directly to 2D fruiting wall systems, Western NY trials have been performed on how to convert mature tall spindle plantings over to the more efficient fruiting walls. I will briefly review the process that Mario Miranda Sazo and Dr. Terence Robinson recommend for making this transition.

While the basic premise of the tall spindle system is to keep relatively short, fruitful limbs, we sometimes allow lower limbs to grow longer than they probably ought to. Simply hedging these trees at this point would lead to a significant decrease in yield, and also lead to excessive regrowth in the following spring, so instead it is recommended to transition blocks slowly to a 2D wall.

The first step in the transition is to send crews through in the winter to remove some of the large limbs with stub cuts for limb renewal. Expect to make two to four cuts per year, and anticipate two to four years of this winter pruning to shape the tree before going in with a hedger. Ideally, we want to end up with trees that have 14 to 16 fruitful limbs on each side of the tree.

The next step, once all big limbs are removed over subsequent years of dormant winter pruning, would be to mechanically hedge the trees from late dormancy through the pink bud stage to shape the fruiting wall. Limbs of tall spindle trees planted at a 3 x 12ft spacing should be hedged at 18 to 20 inches from the trunk, with the hedger angled so trees are slightly narrower at the top.

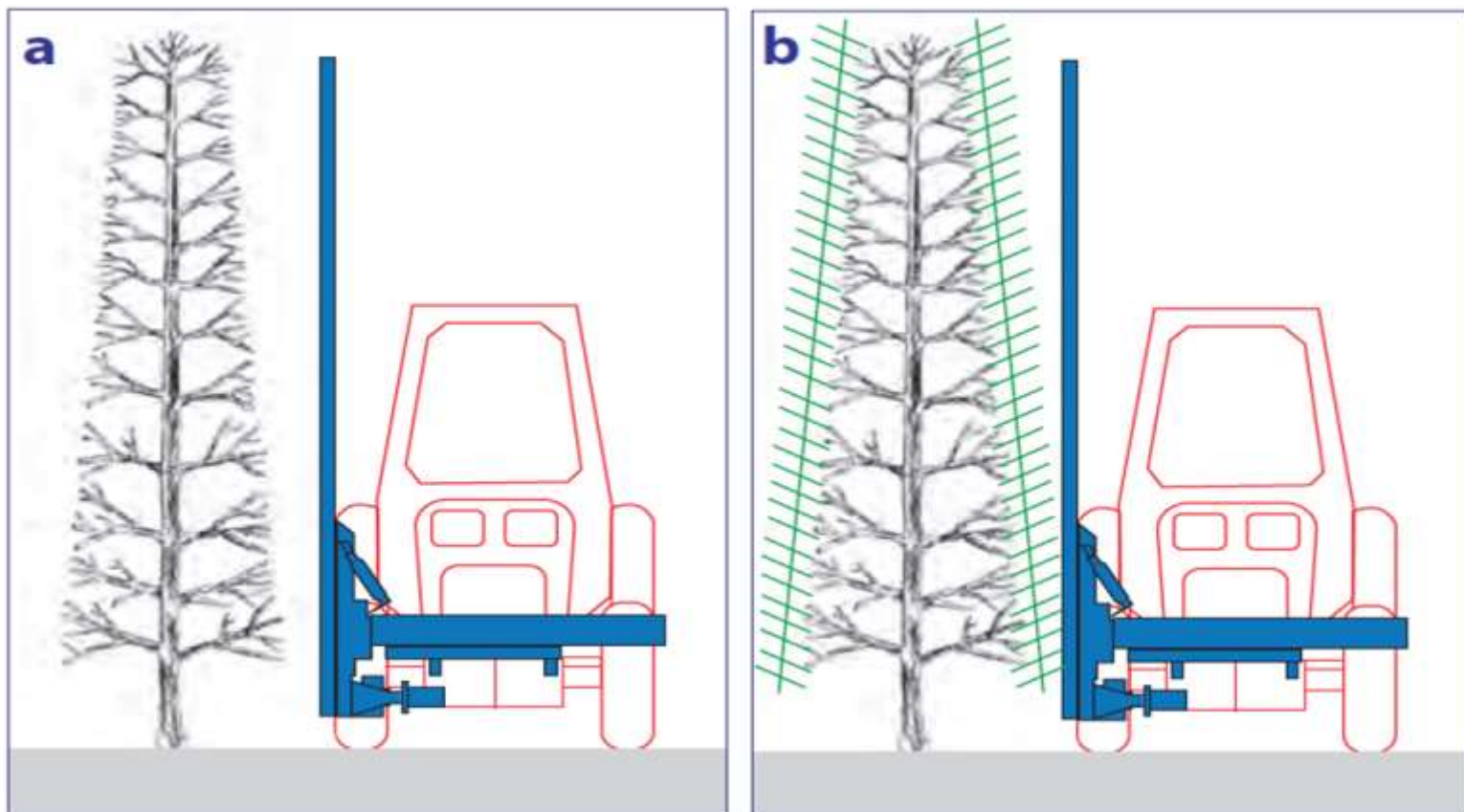


Figure 1: The initial pruning in late dormant or pink to shape the box (a) and subsequent summer pruning that leaves 4-6 inches of regrowth (b). Note the hedging was done on an angle to keep the tops narrower.

(Figure 1a). This angling allows for more uniform light penetration throughout the vertical canopy. This initial shaping should be followed with an Apogee application to control regrowth.

Finally, the transitioning block should be mechanically hedged that same year in the summer. This mechanical hedging should be done 22 to 26 inches from the trunk, again angling the hedger so trees remain slightly narrower at the top (Figure 1b). This summer pruning should take place once terminal buds have set. This will leave you with 4 to 6 inches of new growth off of the 18-20 inch limbs (Figure 2).

Summer hedging will have some impact on fruit size, so consider starting on your large fruited varieties such as Honeycrisp shortly after terminal bud set, and save small varieties like Gala for later in the summer.

This entire process will likely take three to four years, depending on how many big limbs need to be removed when you start the transition process. At this point, you should have a uniform hedge that tapers slightly in as you get higher in the tree, with most of the fruit within two feet of the trunk, allowing for more efficient platform work.

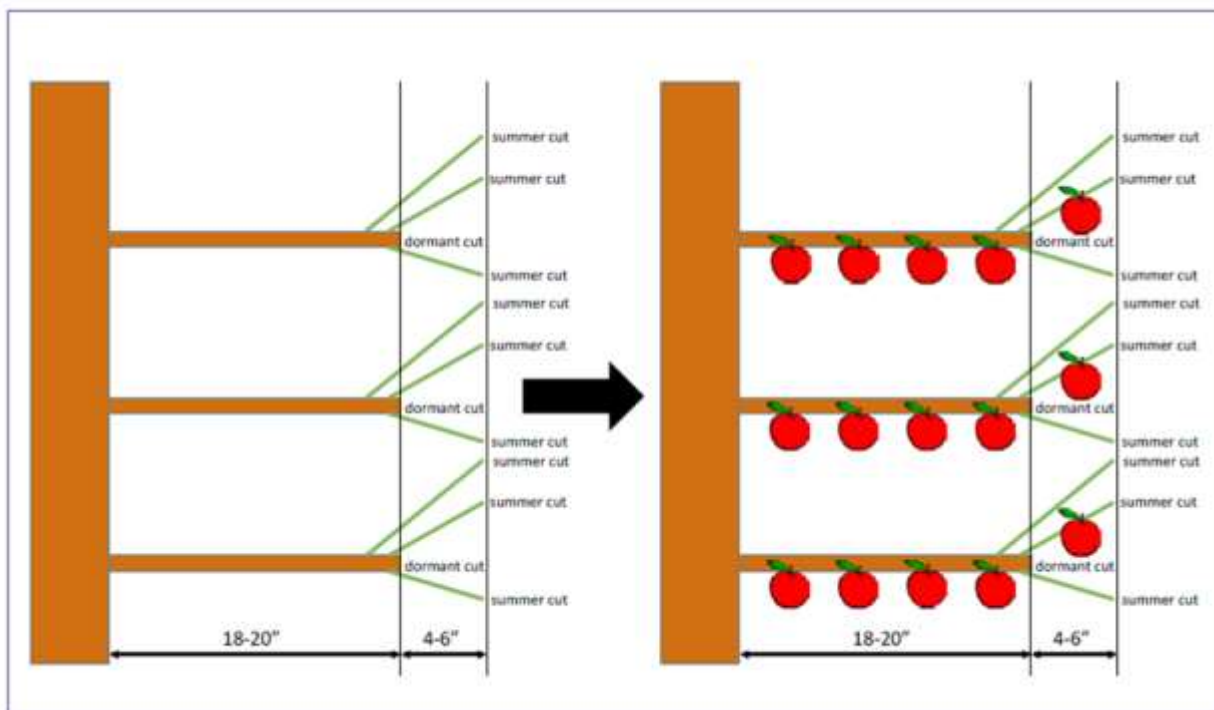


Figure 2: On tall spindle trees, the first dormant cut was made at 18-20 inches, followed with a summer hedging at 22 to 26 inches from the trunk.

Once the trees are shaped to a hedge, you will still need to prune by hand with a crew every winter to remove excessively large limbs. You should not look at mechanical hedging for reducing your winter pruning, rather look at hedging to allow you to do this work more efficiently.

Have additional questions? Review the detailed instructions by Mario in the Fruit Quarterly article “New Advances to Narrower Canopy Systems: Transitioning from 3-D to 2-D Canopies for Fruit Walls – Part 3” Also, each orchard is unique, so feel free to get in touch with myself or Dan Donahue to discuss strategies for converting blocks on your own farm.



New York State Pricing Information of Local Berries

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In 2019, Cornell Food Industry Management Program in conjunction with the NYS Berry Growers Association distributed a berry pricing survey to commercial berry growers across New York State. The survey collected 2018 price information so commercial growers can make better pricing decisions for their various berry crops.

Producers were asked to list the prices they received during the 2018 season for four major berry crops (strawberries, blueberries, brambles (raspberries, blackberries), and ribes (currants, gooseberries)) – all currently being grown in NY state. Growers were also given the opportunity

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to list other berry crops, and the related pricing information, on the survey. Pricing information was requested for three markets; pick-your-own

(PYO), wholesale, and retail venues (farmers market, farm stores, fruit stands). Producers were also asked if they used their berry crops in value added products and if they were organically certified.

Of the 124 surveys returned, 117 responses were from growers who reported producing at least one type of the berries in question representing 45 counties (Table 1). Erie, Monroe, and Tioga counties had the highest number of respondents with 7, 7, and 6 respectively. Thirty respondents indicated they are organically certified, more than double the number of organically certified respondents in 2012.

Almost all berry prices from all market channels increased from 2012 to 2018. Some of the price increase may be due to

	2006	2009	2012	2018
TOTAL GROWERS	48	162	117	117
CONVENTIONAL GROWERS	--	157	97	87
ORGANIC GROWERS	--	5	12	30
COUNTIES REPRESENTED	34	48	37	45

Table 1: Number of survey respondents, 2006 through 2018.

increased proportion of higher-value berries, such as organic berries, greater consumer demand, or simply inflation.

In order to determine if the 2018 berry prices in New York State have kept pace with the inflation rate, the 2012 reported average prices per pound of each berry crop were inflated by the CPI (consumer price index) to obtain a "predicted" 2018 price. The predicted prices were then compared to the 2018 berry prices. The average rate of inflation since 2012 has been 1.50% annually. That means \$1.00 in 2012 has the same purchasing power as \$1.09 in 2018.

The 2018 average prices and the 2012 average prices adjusted for inflation are reported in Table 2. The column titled "Reported 2018 Average Price" shows the average price using the data

	REPORTED 2018 AVERAGE PRICE	PREDICTED AVERAGE PRICE, Adjusting 2012 Data for Inflation	DIFFERENCE
BLUEBERRIES			
PYO	\$2.83	\$2.37	\$0.46
WHOLESALE	\$3.44	\$3.37	\$0.07
RETAIL	\$5.41	\$5.29	\$0.12
STRAWBERRIES			
PYO	\$2.68	\$2.26	\$0.42
WHOLESALE	\$2.74	\$2.56	\$0.18
RETAIL	\$5.11	\$4.07	\$1.04
SUMMER FRUITING RASPBERRIES			
PYO	\$4.14	\$4.29	\$(0.15)
WHOLESALE	\$4.84	\$6.72	\$(1.88)
RETAIL	\$8.11	\$8.01	\$0.10
FALL-FRUITING RASPBERRIES			
PYO	\$4.54	\$4.17	\$0.37
WHOLESALE	\$5.91	\$6.05	\$(0.14)
RETAIL	\$8.74	\$8.38	\$0.36
BLACKBERRIES			
PYO	\$4.69	\$4.87	\$(0.18)
WHOLESALE	\$5.72	\$6.10	\$(0.38)
RETAIL	\$7.94	\$7.73	\$0.21

Table 2: Reported average price per pound vs. inflation adjusted price per pound

*2012 average price adjusted for inflation was calculated using an average inflation rate of 1.50%. Using the following equation; $1.0156 \times 2012 \text{ average price} = 2012 \text{ average price adjusted for inflation}$; we found the 2012 prices adjusted for inflation.

The column titled "Difference" is simply: $2018 \text{ Average Price} - 2012 \text{ Average Price Adjusted for Inflation} = \text{Difference}$. If the difference is positive (green text) then the average sales price in 2018 was greater than the 2012 average price adjusted for inflation. If the difference is negative (red text and in ()'s), then the average sales price in 2018 was less than the 2012 average price adjusted for inflation.

** Retail is the price obtained using data for all reported retail operations; farm store, fruit stand, farmers market, and other reported retail operations; and averaging the data into one category meant to represent all retail operations

obtained from the 2018 price surveys. The column titled “Predicted Average Price” is the predicted sales price assuming the price increased at the same rate as the inflation rate. To calculate this information the average reported sales price from the 2012 berry price survey was normalized by the inflation rate of 1.50% over 6 years to show what the 2018 equivalent sales price would be.

If the resulting number is positive (in green) than the average reported sales price in 2018 is greater than that of the predicted sales price when adjusting for inflation. If the difference is negative (red) than the average reported sales price in 2018 is less than that of the predicted sales price. Essentially, if the number is positive than in theory the average berry grower would be receiving higher revenue than they were in 2012, while if the number is negative then the average berry grower would be receiving lower revenues than they were in 2012. This is assuming all other costs increased at the same rate as the inflation rate. Furthermore, the predicted price does not take into account any other market factors, such as increased demand, organic factors on pricing, the pricing structure of other producers, etc.

Both blueberries and strawberries are shown to have an average sales price for all sales methods higher than the predicted sales price adjusted for inflation. This means the average producer of blueberries and strawberries could be making more in 2018 than they were in 2012. Summer-fruited raspberries, fall-fruited raspberries, and blackberries each have reported sales prices for 2018 that are less than the predicted sales price when adjusting for inflation. Producers of these crops may want to analyze their sales pricing structures. If demand for these products is high enough producers may want to consider increasing their sales prices at least enough to cover the cost of inflation since 2012.

Funding for the report was provided by the New York Berry Growers Association. If you would like to read the full report, please visit: [Full Report](https://dyson.cornell.edu/wp-content/uploads/sites/5/2019/07/Cornell-Dyson-eb1903.pdf) (<https://dyson.cornell.edu/wp-content/uploads/sites/5/2019/07/Cornell-Dyson-eb1903.pdf>)

“Smart Marketing” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry. Please cite or acknowledge when using this material. Past articles are available at: [Smart Marketing](https://dyson.cornell.edu/outreach/smart-marketing-newsletter/) (<https://dyson.cornell.edu/outreach/smart-marketing-newsletter/>)

H2A and the Small Farm

Elizabeth Higgins, Ag Business Management

Are you worried about having enough labor next year for your farm and wonder if H2A would make sense for your farm business? In a recent workshop, sponsored by ENYCH, Marie Lopez, a labor investigator for the United States Department of Labor and Raymond Lurhman of Fox Creek Farm discussed the ins and outs of using the H2A program. Yes, there are a lot of rules and the penalties for violations can be severe - but the program provides access to a pool of farmworkers who are motivated and appreciative of the opportunity to earn money for their families at home by working on US farms.

Fox Creek Farm, in Schoharie County, has used H2A for several years. Raymond generally brings in two H2A workers and has had workers from both Mexico and Jamaica. He estimated that his fixed costs to bring two workers to his farm from Jamaica runs about \$3000 for fees and travel expenses. The AEWR (or mandatory wage rate for H2A workers in NY) is \$ 13.25/hr, so assuming 40 hrs/ week, with two workers the weekly payroll would be around \$1,060. Raymond provides housing on his farm, but before he had housing, he rented a house in town for his employees. In his estimation the program, although expensive, is entirely worth it. “I couldn’t do what I do without my guys” he said. “They are worth every dollar and more.” He now has two employees from Jamaica who have been with him for a couple of seasons and who he anticipates bringing back.

Raymond now does his own paperwork but used a recruiter in the beginning. Marie recommended that farms new to the program start with a recruiter. She finds that many of the violations that she finds on farms are from farms new to the program who try to go it alone and get tripped up because of the complexity of the rules. Raymond advised getting recommendations from other growers for a recruiter to make sure that you get someone who will do a good job for you.

Is the program for everyone? Raymond cautioned that once you are in the program you are opening yourself up to more governmental scrutiny of your farm practices and paperwork. You can’t fly under the government’s radar if you are in the H2A program. For some farms this could be a big change. But for him, the trade-off has been worth it. Before the program Fox Creek Farm had trouble finding reliable workers to work the entire season from April through November. Now they have a regular crew that they can rely on.

For more information about the H2A program from USDOL, see https://www.dol.gov/whd/ag/ag_h-2a.htm and from NYS DOL at <https://labor.ny.gov/immigrants/foreign-labor-certification-unit/h-2a.shtm>.

Production System Innovations for Berry Crops in Protected Culture

Laura McDermott, CCE ENYCHP

For the past five years, I've had the good fortune to work with berry experts from six states, the USDA and England on a Specialty Crops Research Initiative (SCRI) examining protected culture of berry crops in cool climates. In August 2019, the 'Tunnelberries' project team visited Quebec, Canada to learn how Canadian farmers are adopting protected berry culture to their cold climate. We toured some really novel research plots, many commercial farms and one blueberry farm using exclusion netting. The two most unusual systems from my perspective were long cane production of raspberries under protected culture, and substrate table-top production of strawberries.

Long Cane Raspberry Production

Long cane raspberry production can result in 8 times the yield of field production with a much easier, cleaner harvest and very high quality, large berries – all while having less pest pressure and thus requiring far fewer pesticide applications.

The long cane system makes the most sense if the grower has a reliable, discerning wholesale market. Yield potential ranges from 9-16 tons per acre. The plant population is approximately 8,900 canes per acre and Quebec growers are using primarily the cultivar Tulameen, but have experimented with other varieties including Glen Ample and Chemainus. Harvest is approximately 6 weeks long from mid-July to the end of August, but can be shifted by using cold storage.

A significant disadvantage to this system is the amount of labor needed beyond harvesting. Harvest labor should decrease due to increased efficiency and less need to field sort the crop. The need for additional labor beyond harvest is evident when the long cane process is examined.

In the spring of year one, 2 plugs are planted in a small container and then irrigated and fertilized 5-10 times per day for the entire season. The nursery is not usually under cover. Canes are tied periodically to bamboo sticks as they grow. Quebec growers said the only major pest during this stage was cane borer, but the containers did need to be weeded, mostly to remove any additional canes that emerged.

In late October, at the end of the first growing season, plants were removed from the container and canes were pruned to approximately 5 ½ feet. They were packed into boxes for cold storage although some farms stored them under double layer fleece row cover. Temperatures should stay consistent around 28oF for the entire winter to prevent cold damage and premature bud break.

In the early spring of year 2, the plants were re-potted into larger containers and then placed under the protection of a rain-shelter or high tunnel for the fruiting season. These plants were still irrigated and fertilized all season, as much as 5-10 times per day. The laterals were managed by tying them to horizontal string trellis or weaving them through a net trellis. Harvest begins in mid-July in Quebec and continues into early September depending on cultivar and the timing of removal from cold storage. Two new primocanes were allowed to emerge during this 2nd year to provide fruiting canes for year 3.

During the fall of year 2 the system becomes more flexible. Growers choose to either discard everything or save the plants to go back into production or into the nursery. If the plants go into production the old canes are removed and the 2 new canes are pruned to approximately 5' and then wintered. If the plants go into the nursery they are used for plug production, or are pruned back and allowed to grow as primocanes. Research into the most reliable strategy for years 3-5 is ongoing. So far, trials show that yield is



Long cane raspberries placed under rain shelter in Quebec.

Photo: L. McDermott



Raspberry fruit ready for harvest. Laterals are directed through the trellis netting. Photo: L. McDermott



Table-top system for strawberries grown in pots of peat based substrate. Rain-shelter covering provides protection from weather. Photo: L. McDermott

better the second season that the containers are put in production (either third or fourth year), and that this strategy is more profitable than planting new canes. Each container can be harvested at least twice if they are well cared for, resulting in up to 4 harvests in 5 years.

Some of the drawbacks to this system include the initial expense of starting this system. One of the growers estimated that the cost of the freezer, boxes and fleece covering was well over \$60,000/acre. The increased number of times that workers need to handle the plants is an added expense, plus if the grower does not have a high tunnel or rain-shelter long cane production is not worth doing. There are some challenges with pests like mites that are significantly worse in a protected culture environment, but interestingly SWD was a concern but not a game-changer for these growers. The complexity of long cane production requires a veteran grower. Other challenges include a reliance on peat moss for potting media. One grower reported using just over 24 tons of peat moss per acre for this system. He recognized that this level of

usage may not be sustainable economically or environmentally in the future, and due to that, was investigating coconut coir.

While long cane raspberry production in Quebec was interesting and yield was impressive it is unclear to me that this system would work for most growers in eastern NY. The biggest challenge would be markets. The large amount of high quality berries produced would demand an excellent, reliable wholesale market. If growers try this, it will be important to start small and see how it works in your farm system. Quebec farmers are tweaking this continuously and yield will likely continue to improve as they fine-tune the process.

Table-top strawberry production

Substrate, or table top production of strawberries began in Holland in the early 1980's. Soil-borne disease was the motivating factor behind adoption, just as it seems to be for North America now, but there are other reasons that substrate production is worth a second look.

Some of the benefits that the Canadian growers pointed to were labor savings, better yield, and the reduction of pesticide use. Any casual observer can see quickly why table top systems would be much easier on pickers. The table is the ideal height and the system allows for much better light exposure and air movement. Yield is superior due to high plant density – again making picking easier. And since air flow is better, and plants are off the ground and sheltered in a high tunnel or rain-shield, damage from disease, insects, slugs and birds is dramatically reduced.

Table top systems do have limitations. The initial investments are higher than with field plantings. The grower needs to understand traditional strawberry production, but also be adept at managing water, fertilizer and plant growth in a protected system. Managing water quality including EC, pH and iron levels are very different for growers that are accustomed to growing in soil. Altering soil characteristics takes a great deal of time, while amending water creates an almost immediate difference for the growing plants.

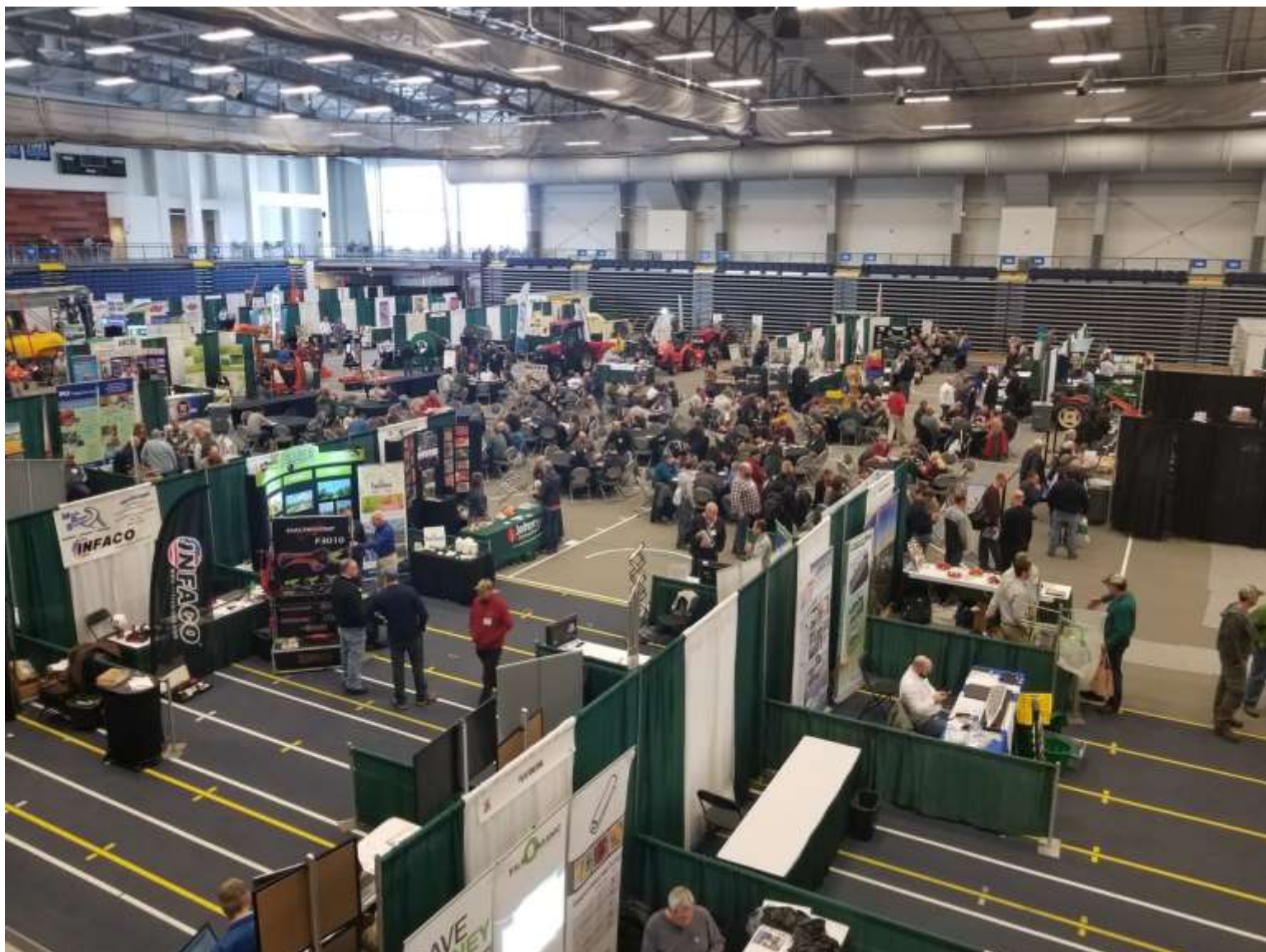
Table top systems are almost 100% grown in substrate under a protective cover. The substrate used helps to anchor the plants but it also helps hold water and nutrients so that the plant roots can access nutrients while still allowing oxygen to exist in the substrate. Peat moss, coconut coir, and perlite are the most common substrates either solely or in combination. All of these substrates have unique characteristics that, without perfect management, can result in poor results.

There are many variations on the substrate growing theme, but using a table top system that results in slightly earlier, improved yields that are easier for workers to pick seems like an excellent system to consider for eastern NY growers with reliable wholesale markets.

For more information on long cane raspberry production and other strategies for growing berries, consider attending the Berry session at the Empire Producers EXPO on Thursday, January 16th, 2020. For information and to register visit: <http://nysvga.org/expo/information/>.

If you are intrigued by substrate production of strawberries, there is an extremely unique opportunity to attend a world class, three-day workshop sponsored by the NYS Berry Growers Association in February. For more information about that opportunity, visit: <https://www.nysbga.org/berry-growers/2019/12/9/join-us-for-our-in-depth-strawberry-substrate-workshop-211-21320>.

Don't miss the 2020 Empire State Producers EXPO!!



The Empire State Producers Expo is back at the OnCenter in downtown Syracuse for 2020, with the Becker Forum kicking things off on Monday, January 13. The Forum will focus on the biggest issue facing growers today – labor. The event takes place at the Marriott Syracuse Downtown and is also headquarters for the entire EXPO.

Expo organizer Steve Reiners says that “in addition to traditional commodity based sessions, there will be sessions focused on the newest techniques in stand establishment, soil fertility, grafting, biocontrol, sprayer technology, and weed management for both large scale and small scale/organic farms.

- ✓ Interested in conserving energy or utilizing the growing solar and wind energy markets? Energy sessions on Tuesday and Wednesday will cover these topics and NYSERDA’s farm energy audit.
- ✓ How about new crops? Thursday focuses on the dynamic hemp industry with production and marketing experts.
- ✓ Take a look on Thursday at specialty root crops like yacon, scorzonera, salsify, and root parsley.
- ✓ Love beets? Attend the beet workshop featuring Dr. Irwin Goldman from the University of Wisconsin also on Thursday.
- ✓ Food safety continues to be a major issue for growers, attend the Produce Safety Alliance training on Tuesday (preregistration required).

- ✓ Learn the best ways to set up your packing facility with food safety in mind and bilingual food safety session in Spanish and English on Wednesday afternoon.

Research posters will be exhibited in the expanded trade show this year that has more vendors than ever before. Future Farmers of America from around the state will be joining attendees in sessions on Thursday.

The Marriott Syracuse Downtown hotel will provide the opportunity for lots of socializing in the evening including a meet and greet social on Tuesday and a large apple cider tasting on Wednesday.

Immediately following the EXPO, NOFA-NY will have their conference starting Friday, January 17th, 2020. Thursday will be a crossover day with sessions that appeal to both audiences – soil health, organic weed management, organic berries, and high value specialty crops.



3 GREAT EVENTS BACK TO BACK

- 1** **2020 BECKER FORUM**
January 13, 2020
Marriott Syracuse Downtown
100 East Onondaga Street, Syracuse, NY 13202
For more information, visit nysvga.org/expo/information
- 2** **EMPIRE STATE PRODUCERS EXPO**
January 14-16, 2020
Oncenter
800 South State Street, Syracuse, NY 13202
For more information, visit nysvga.org/expo/information
For exhibitor information, contact Lee Trade Shows at 800.218.5586 or dawren@leespub.com
- 3** **NOFA-NY'S 2020 WINTER CONFERENCE**
January 17-19, 2020
Oncenter
800 South State Street, Syracuse, NY 13202
For more information or to exhibit, visit nofany.org/winterconference or call 315.988.4000

**The 2020 Empire State Producers Expo –
you can't miss it!**



Upcoming Events

2020 Tri-State Greenhouse IPM Workshop

January 7, 2020—Longfellow's Greenhouses in Manchester, ME

January 8, 2020—UNH in Durham, NH

January 9, 2020—Gardeners Supply in Burlington, VT

This year's workshop program on greenhouse and high tunnel IPM is multi-faceted, with presentations on biological control, disease management and sprayer calibration. Featured speaker is Brian Spender, Biocontrol Specialist from Applied Bio-nomics, Victoria BC Canada.

Registration: <https://www.uvm.edu/~entlab/Greenhouse%20IPM/Workshops/2020/IPMWorkshop2020.html>

Apple IPM: Basics for Orchard Employees

January 10, 2020

Ballston, Spa, NY

Covering the basics of integrated pest management, including how to monitor traps, evaluate insect thresholds, and use prediction models to manage common orchard pests. Registration:

<https://enych.cce.cornell.edu/event.php?id=1294>

In-Depth Strawberry Substrate Workshop

(sponsored by the NYS Berry Growers Assoc.)

February 11-13, 2020

Ithaca, NY

Cost: \$195 NYSBGA members, \$245 non-members

Growing strawberries in substrate (soil-less media) can help prevent soil-borne diseases. It can also increase yields, improve quality, and reduce the costs associated with pesticides, fertilizer, and water.

In this 3-day workshop, led by Dennis Wilson of Delphy, a worldwide leader in food and flower production based in the Netherlands, we'll combine classroom and hands-on sessions in Cornell's greenhouses to learn about the most effective methods for strawberry substrate production. The workshop is limited to 35 participants, all of whom will walk away with the skills and knowledge they need to grow strawberries on substrate.

Breakfast, lunch, and printed handouts included. A block of rooms have been reserved at the Best Western University Inn, 1020 Ellis Hollow Road, Ithaca, New York 14850. The cost is \$129/night. Breakfast and shuttle will be provided to guests that stay here. The direct number to the hotel is (607) 272-6100.

For more information and to register, visit <https://www.nysbga.org/berry-growers/2019/12/9/join-us-for-our-in-depth-strawberry-substrate-workshop-211-21320>.

2020 Empire State Producers Expo

Jan 13, 2020 Becker Forum

Jan 14-16 2020 Empire State Producers Expo

Oncenter, Syracuse, NY <http://nysvga.org/expo/information/>

Capital District Region Farm to Fork Local Food Expo

January 22, 2020—Guilderland High School Gym, Guilderland Center, NY

12:00—4:00pm

If you are a vendor/grower looking to increase your visibility and sales with local regional businesses like schools, institutions, restaurants, wholesalers, and supermarkets, then you should plan on attending this free event. We anticipate over forty buyers to be on-hand to taste local products and build relationships with local growers and producers. Register by contacting Sydney Joy at CCE Albany County, sij23@cornell.edu or 518-765-3579



Cornell Cooperative Extension
Eastern NY Commercial Horticulture Program

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Nevertheless, changes in pesticide regulations occur constantly and human errors are still possible. These recommendations are not substitutes for pesticide labeling. Please read the label before applying any pesticide. Where trade names are used, no discrimination is intended and no endorsement is implied by Cornell Cooperative Extension.

2020 Eastern NY Fruit and Vegetable Conference at the Desmond in Albany, NY
February 25—26, 2020—Save the Date!!

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.