Quebec TunnelBerries Tour

By Debby Wechsler, NARBA Executive Secretary

In early August, I participated in a tour of Quebec farms sponsored by the TunnelBerries project, a five-year, USDA-funded project, now in its final year, that has been headed up by Eric Hanson at Michigan State and Kathy Demchak at Penn State. Our group included NARBA members Marvin Pritts and Laura McDermott, both Cornell extension, New York grower Dale Ilia Riggs, and extension folks from New Hampshire, Michigan, New Jersey, Minnesota, Maine, and New Jersey.

Quebec berry growers have been leaders in tunnel production, and it was exciting to see what they are doing. Our first stop, after driving east several hours from Montreal, was NARBA member farm Les Productions Horticoles Demers, Inc. This farm was also the first in Quebec to adopt “long-cane production” for raspberries. “In 2006,” explained Réjean Demers, “I heard a speaker from Scotland talk about using tunnels for strawberries, and went to see – but I came back with the idea to do raspberries in tunnels instead.” The Demers raise 18 hectares (45 acres) of day-neutral strawberries and 16 hectares (40 acres) of short-day strawberries. They also have 10 hectares of tomatoes in glasshouses with artificial light and 2 of peppers in poly greenhouses. They now have 4 hectares (10 acres) of long-cane raspberries in tunnels on substrate.

Here’s how long-cane raspberries now work on their farm after several years of adapting this European system for their own climate and situation:

They first start small plug plants (most commonly Tulameen cultivar) in the greenhouse, from root cuttings they make from bulk roots purchased from nurseries in California or Oregon. They then move the young plants into 1.8-2 liter pots with coconut coir substrate, two plants per pot with a bamboo stake for support, and set the pots outdoors in tight rows, with drip irrigation. The continued on page 9

NARBA’s next conference in St. Louis, Missouri March 3-6, 2020, will be here before you know it! Our staff and planning committee are hard at work pulling together the details. You can expect to see registration information and program details by late this fall. Information about the general schedule, hotel, travel, and the local area is already available on the conference pages at www.raspberryblackberry.com. Some highlights:

• **A Fundamentals of Caneberry Production Workshop** has now been scheduled for the afternoon of Wed., March 3. (The tour is March 4. The trade show and educational sessions are March 5-6.)

• **You can now make your hotel reservations** at our host hotel, the Chase Park Plaza. Find the link on the webpage or call 413-821-3581 and mention “Raspberry & Blackberry Conference.”

• **The full-day tour March 4 visits:** Danforth Plant Science Center is an independent, not-for-profit research institute founded in 1998. Its major research areas are basic plant science discovery and technology development; food security crop improvement and sustainability and next-generation/sustainable bioenergy.

North Bay Produce is a major distributor of caneberries and other berries. We tour their large, modern distribution facility. **Eckert Family Farms** in Belleville, Illinois, is a seventh-generation farm raising tree fruit, blackberries, strawberries and more, with an awesome country store.

If you have any early questions or if your company would like to be an exhibitor or sponsor, please contact the NARBA office.
Briefly Speaking...

As our domestic blackberry season ends, as a new grower and first-year NARBA Executive Council member, I want to introduce myself and share a few thoughts with our members. Thank you for electing me to the NARBA Executive Council as the Southeast Region representative. My experience since January has far exceeded all my expectations and confirms my decision to put more of my time and energy into NARBA.

Our family is new to farming and to growing blackberries. We purchased our farm in Coats, NC in 2017 and after months of research, consultation, discussions, and analysis we began farm operations in January 2018. We planted six acres of blackberries in March 2018 and just completed our first harvest at the end of June. (Please read the article on page 13 about my impressions as a new blackberry grower.) During our planning phase I discovered NARBA. I joined with the hope of finding more information resources, making contacts within the industry, and being able to learn from the experiences of growers in the industry. Becoming a member of NARBA was one of the best things that I did to help our farm.

NARBA is a good source of information for growers of all sizes as well as a resource for networking and finding people in our industry who can help you succeed. NARBA funds research on regional and national caneberry issues through our research foundation – I encourage you to share your thoughts on research priorities for next year’s projects (see article to right). We are hard at work planning our next conference that will be held in St. Louis in early March, 2020. Our conference planning committee and our new conference program coordinator, Jill Bushakra, are developing the program and lining up speakers now. Those of you who have worked with Jill know how fortunate we are that she has joined us to plan and manage our next conference program.

We know it will be an exciting conference packed with useful information. A few months ago, NARBA conducted a survey of our members. Thank you to everyone who participated and thanks especially for the comments that you, and others, provided. These comments have been compiled and shared with each member of our Executive Council, and we are using this information to improve our association. We are updating links and information resources on our website, incorporating survey results in conference planning for our annual conference in St. Louis, and assessing how our Executive Council can ensure that our association remains responsive to our members’ needs.

There are still many things to do to get ready for fall and winter on our farm. I thank you again for electing me to our Executive Council. Please let us know how we can better serve you as members of our association. I hope to see you in St. Louis at our annual conference.

Tom O’Brien
O’Brien Family Farms, Coats, NC
NARBA Executive Council Region 5 Representative

<table>
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<th>EVENTS</th>
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<tr>
<td><strong>September 13, 2019: Blackberry Field Day</strong>, at the Mountain Horticultural Crops Research Station, Mills River, NC, 10:00 am - 4:00 pm. Free registration, sponsored lunch. For more information, contact Karen Blaedow, <a href="mailto:karen_blaedow@ncsu.edu">karen_blaedow@ncsu.edu</a> or 828-697-4891.</td>
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<tr>
<td><strong>December 4-6, 2019: Washington Small Fruit Conference &amp; Lynden Ag Show</strong>, in Lynden, WA. Register at <a href="https://www.eventsquid.com/event.cfm?id=6313">https://www.eventsquid.com/event.cfm?id=6313</a></td>
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<tr>
<td><strong>March 3-6, 2020: North American Raspberry &amp; Blackberry Conference</strong>, Chase Park Plaza Hotel, St. Louis, Missouri. NARBA’s next annual conference will include a Fundamentals workshop, a full-day tour, and two days of educational sessions and trade show. Hotel reservations are now open. Sponsor/exhibitor inquiries are welcome. Visit <a href="http://www.raspberryblackberry.com">www.raspberryblackberry.com</a> for more information or call 919-542-4037. Visit <a href="http://www.raspberryblackberry.com">www.raspberryblackberry.com</a> for our most up-to-date list of events. To have events of interest to our members or the public listed, contact the NARBA office.</td>
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Help Set Our Research Foundation’s Priorities

NARBA’s North American Bramble Growers Research Foundation will be sending out its Call for Proposals this fall for grants to be made in Spring 2020. NARBA members are invited to help set the priorities for this year’s funding.

Below are the priorities that were set for 2019. Should topics be removed from this long list? Should any be added? Should something be emphasized? Should we focus on only one or two issues with larger grants? Your input is important!

Please send your suggestions by September 30 to Patrick Byers at byerspl@missouri.edu. Or, call the NARBA office at 919-542-4037 and relay your thoughts by phone.

Pest Management Strategies
- Evaluation of new pesticides (insecticides, fungicides and herbicides) for blackberry and raspberry production
- Non-chemical strategies for pest control
- Management of spotted wing drosophila (SWD)

Production Efficiency and Profitability
- Management of blackberries and raspberries in tunnels and shade structures (pruning, training and trellis systems)
- Post-harvest handling for small farmers
- Pruning and training systems to improve production
- Dealing with heat/UV damage to fruit using horticultural management
- Using horticultural management techniques or improved cultivars to machine harvest for fresh market
- Development of cultural practices to aid in extreme climate/weather events
- Nitrogen management
- Management of blackberry red drupelet reversion
- Pruning practices for primocane-fruiting blackberries

Cultivar Development and Testing
- Breeding for tolerance to environmental issues
- Identification of genes that control white drupelets
- Breeding for longer chilling and development of secondary buds
- Breeding for reduced blackberry red drupelet reversion
- Black raspberry development, including thornlessness and earlier/later ripening cultivars

Special Needs
- Marketing
- Health benefits research

How You Can Help Research
If you are a grower, consider contacting researchers in your area to let them know about this grant program and encourage them to develop a proposal; grower involvement in a project can definitely be a plus for everyone.

Additional funds are needed to grow the Foundation’s ability to support much needed research. While most funding for the Foundation currently comes from Nursery contributions, the Trustees challenge other industry suppliers to show their support. Ask the companies you work with to donate; make a donation yourself, large or small.

Would you like a NARBA Membership Directory Booklet?
In previous years, printed directories were sent to all members. This spring, we printed up a limited number and sent them only to those who requested them.

There are a few extras left, and they aren’t doing anyone any good sitting here in the NARBA office. If you would like one mailed to you, please call the NARBA office at 919-542-4037 or email info@raspberryblackberry.com.

A printable pdf of the same directory is available in the Members Only section of the NARBA website. The most complete up-to-date web directory can also be accessed there.

Learn more about the foundation, including past grants, reports from funded projects, recent major contributors, and more at www.raspberryblackberry.com/research-foundation.

New Research Committee Members
The Research Committee of the NABG Research Foundation gives input on research priorities and reviews the proposals that are received, and makes recommendations for funding to the Board of Trustees. They serve three-year terms. In considering nominees, the Board seeks a balance of growers, research/extension folks, and industry, as well as representation from different parts of the country.

Joining the Committee this fall are three new members:
Jeremy Pattison, Driscoll’s, Watsonville, CA
Christopher Winterbottom, Good Farms LLC, Hollister, CA
Laura McDermott, Cornell University Extension, Hudson Falls, NY

We profoundly thank retiring committee members Reza Rafie, Walter Goss, and Sarah Hulick for their service.

Berry Crops Position at MSU
The Department of Horticulture in the College of Agriculture and Natural Resources at Michigan State University seeks candidates for an Assistant Professor (50% research, 35% extension, 15% teaching) position to lead its research program in berry crops physiology and production. Find details here: www.careers.msu.edu/cw/en-us/job/502277/assistant-professor-sortenure-system. Review of applications begins Nov. 15.

In Memory
Phil De Lange, a NARBA member since 1990, passed away on August 18. Phil and his wife, Teresa, operated DeLange’s Redberry Farm in Hudsonville, Michigan.

Phil and Theresa sold the farm to their son and daughter-in-law, Dale and Lisa, about ten years ago. Says Dale, “He still worked every day (doing things he liked). He loved staying active, growing things, and trying new ideas. Three years ago he built a greenhouse and last year built a hoop house to grow blackberries and raspberries.”
This Venturi Air Sprayer features the latest technology in low volume spraying. Berry growers achieve the following benefits: better coverage from a smaller and more uniform droplet size, less fill-ups, less wasted chemical, and lower maintenance costs. This special narrow sprayer was developed for low horsepower tractors operating in Hoop houses.

This Venturi Air Sprayer also features the same technology but for higher horsepower tractors. The fog sized droplets insures total plant coverage. The special 16 nozzle distributor head gives total foliage coverage including the underside of leaves. If your tractor has enough PTO horsepower, we recommend the P50 due to the density of the foliage.
Autumn Caneberry Chores

This list was developed by Dr. Gina Fernandez, Small Fruit Specialist at NC State University, and reviewed and revised with the assistance of Dr. Marvin Pritts at Cornell. Chores and timing may be somewhat different in your area or for your cropping system. For detailed recommendations for the Pacific Northwest, subscribe to The Small Fruit Update (www.nwberryfoundation.org/SFUsignup.html).

Plant growth and development
- Primocanes continue to grow but slow down.
- Flower buds start to form in leaf axils on summer-fruiting types.
- Carbohydrates and nutrients in canes begin to move into the roots.
- Primocane fruiting types begin to flower in late summer/early fall and fruit matures until frost in fall.
- Primocane leaves senesce late fall.

Harvest
- Harvest primocane-fruiting raspberries.
- Harvest primocane-fruiting blackberries.

Pruning, trellising
- Remove spent floricanes as soon as possible after harvest is complete.
- While optimal time to prune is after the coldest part of the winter is over, pruning can start in late fall if plantings are large (late winter for smaller plantings).
- Start trellis repairs after plants have defoliated.

Tunnels
- Remove coverings on three-season tunnels.
- Do not completely close up four-season tunnels during autumn so plants can harden for winter. Allow air to move from sides of tunnels.

Weed management
- Many spring and summer weed problems can be best managed with fall- and winter-applied preemergent herbicides. Determine what weeds have been or could be a problem in your area. Check with your state’s agricultural chemical manual and local extension agent for the labeled chemicals best for controlling these weeds.

Insect and disease scouting
- Continue scouting for insects and diseases and treat with pesticides if necessary (follow recommendations for your state).

- If harvesting, maintain SWD spray schedule.
- Remove damaged canes from field as soon as possible to lessen the impact of pests.

Planting
- Growers in southern areas can plant in the fall.
- In cooler areas, prepare list of cultivars for next spring’s new plantings and plan your order.
- Consult NARBA’s nursery list in this newsletter. Another list is at https://blogs.cornell.edu/berrynurseries/

Nutrient management
- Take soil tests to determine fertility needs for new spring plantings.
- Non-nitrogenous fertilizers are best applied in the fall to established plantings.
- If soil is bare, plant an overwintering cover crop (e.g. rye) to build organic matter and slow soil erosion.

Marketing and miscellaneous
- In the SEUS, prepare for hurricanes and assess damage afterward. Some tips from NCSU and Cornell can be found at: https://teamrubus.blogspot.com/search?q=Hurricane
- Order containers for next season.
- Make contacts for selling fruit next season.
- Plan on attending winter state and regional grower meetings. NARBA coordinates the blackberry track in Savannah, GA (see below). Also plan to come to the NARBA conference in St. Louis in March 2020.

Jan 9-10, 2020: Caneberry Sessions at the Southeast Regional Fruit & Vegetable Conference

NARBA’s 2019 conference was here and we coordinate the caneberry track other years as well. Some of the topics planned:
- A Fundamentals of Blackberry Production workshop (Jan 9).
- Blackberry crop budgets – what do growers want to know?
- Training systems and pruning techniques for blackberries
- Vegetative growth management of blackberry with PGR’s
- Chemical induction of bud break under inadequate chilling
- Primocane-fruiting blackberry nutrient levels through the season
- Experiences with Tunnel Production
- Rotating Arm Trellis: Impacts on yield, fruit quality and labor
- Robotic Crop Monitoring and Spraying Technologies
- Sprayer Technology: More isn’t better
- Caneberry Detective: Diagnosing mystery problems
- Pest, weed, and disease management updates

Find the full program and registration at https://seregionalconference.org
### 2019-2020 NARBA Raspberry & Blackberry Nursery List

This list includes the raspberry and blackberry caneberry nursery suppliers who are members of the North American Raspberry & Blackberry Association as of October 9, 2019. Please send changes or corrections to the NARBA office.


**Berries Unlimited** – 807 Cedar Lane, Prairie Grove, AR 72753, Hare Stuart, berriesunlimitedusa@gmail.com, 479-846-6030, www.berriesunlimited.com

**Boston Mountain Nursery** – P.O. Box 308, 20189 North Hwy. 71, Mountainburg, AR 72946, Gary Pense, Sr., bostonmountainnurseries@centurylink.net, 479-369-2007, www.alcasoft.com/bostonmountain

**Indiana Berry & Plant Co.** – 2811 Michigan Road, Plymouth, IN 46563, Karla Simmons, ksimmons@indianaberry.com, 800-295-2226, www.indianaberry.com

**Kriegers Wholesale Nursery** – P.O. Box 116, Bridgman, MI 49106, Mark, Jame, and Marilyn Krieger, office@kriegersnursery.com, 269-465-5522, www.kriegersnursery.com or www.berryplants.com

**Magnolia Gardens Nursery**, 18810 Turtle Creek Lane, Magnolia, TX 77355, Rachel Allphin, RachelA@Magnoliarvens.com, 800-753-8098, www.MGNLiners.com

**North American Plants** – 9375 SE Warminster Road, McMinnville, OR 97128, Randy Murphy, wmrmurphy@naplants.com, 503-687-3128, www.naplants.com

**Northwest Plant Company** – 8021 Woodland Rd., Ferndale, WA 98248, Julie Enfield, julie.enfield@nwplant.com, 360-354-2919, www.nwplant.com

**Nourse Farms, Inc.** – 41 River Rd., South Deerfield, MA 01373, Tim Nourse, Anne Kowaleck, tnourse@noursefarms.com or akowaleck@noursefarms.com, 413-665-2658, www.noursefarms.com

**Onesime Pouliot Agriplant** – 5342 Chemin Royal, Saint-Jean-de-l’Ile-d’Orleans, Quebec City, QC, Canada G0A3W0, Joey Boudreault, jboudreault@onesimepouliot.com, 418-829-2801, ext 308, http://onesimepouliot.com

**Pense Nursery, Inc.** – P.O. Box 449, Mountainburg, AR 72946, Phillip Pense, pensefarms1@hotmail.com, 479-369-2494, www.penseberryfarm.com


**Berries Unlimited** – 807 Cedar Lane, Prairie Grove, AR 72753, Hare Stuart, berriesunlimitedusa@gmail.com, 479-846-6030, www.berriesunlimited.com

**Boston Mountain Nursery** – P.O. Box 308, 20189 North Hwy. 71, Mountainburg, AR 72946, Gary Pense, Sr., bostonmountainnurseries@centurylink.net, 479-369-2007, www.alcasoft.com/bostonmountain

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### Tips for ordering plants

**Plan** what you want/need, considering markets, ripening dates, existing plantings, etc.

**Do your research** on variety characteristics, best plant type (plugs, roots, bare root, etc.) for your needs and situation, regional recommendations and experiences.

**Order early** to assure availability of the varieties and plant types you want.

**Inspect plants** on arrival to see if they are healthy looking and up to the standard grade.

**Contact the nursery** if you have questions or see problems.

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### New This Year

Several new cultivars make their debut on this year’s Raspberry & Blackberry Nursery list. They are shown below. Please note that berry sizes in the photos are not comparable.

**Caddo** – An early ripening, thornless blackberry developed by Dr. John Clark at the University of Arkansas. It is being sold by AgriStarts, Indiana Berry & Plant Co., North American Plants, and Nourse Farms. 
*Photo, University of Arkansas. More information at www.uaex.edu/media-resources/news/january2019/0125_Caddo_blackberry_released.aspx*

**Cascade Premier** – A red raspberry from Dr. Pat Moore at Washington State University, bred for easy machine harvest. It is available from Northwest Plant Co. 

**Mapema** – An early-fruiting primocane red raspberry from the Advanced Berry Breeding (ABB) program in the Netherlands. It is available in very limited supply from Nourse Farms. 
*Photo, ABB. More information at www.abbrevreeding.nl/varieties/mapema/?lang=en*
<table>
<thead>
<tr>
<th>Nursery</th>
<th>Types of Sales</th>
<th>Types of Plants</th>
<th>Blackberry Cultivars</th>
<th>Raspberry Cultivars</th>
<th>Other Nursery Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onesime Pouliot Agriflant</td>
<td>Commercial growers, wholesale. Web catalog</td>
<td>Plugs; potted plants for long cane production</td>
<td>No blackberries</td>
<td>Tulameen</td>
<td>Strawberries</td>
</tr>
<tr>
<td>Pense Nursery</td>
<td>Commercial growers, wholesale, gardeners (minimum $75). Web catalog</td>
<td>Bare root canes. Other types special order</td>
<td>Apache, Arapaho, Caddo, Navaho, Natchez, Osage, Ouachita, Prime Ark Freedom, Triple Crown, Von</td>
<td>Red: Boyne, BP-1, Caroline, Encore, Heritage, Himbo Top, Joan J. Killarney, Latham, Nova, Polana, Polka, Prelude, Tula Magic, Yellow: Anne  Black: Jewel, Niwot</td>
<td>Strawberries, grapes, blueberries, tree fruit, more</td>
</tr>
</tbody>
</table>

Please note: Availability of specific varieties may change. Updates, corrections, comments, and suggestions are welcome.

Additional nurseries which wish to be listed are invited to join the North American Raspberry & Blackberry Association. Please contact NARBA for more information.

919-52-4037, info@raspberryblackberry.com, www.raspberryblackberry.com
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For more information on FruitPad contact us at (540) 352-5050 or sales@mcairlaids.com.

FruitPad is now available at
Southern Container Corporation of Wilson, Inc. | socontainers.com
Quebec Tour

Continued from page 1

plants grow all summer, developing their signature long canes. In fall, they bring the plants into their cooler and store them over winter. In the spring, from May until mid-June, they bring out the plants in batches every couple of weeks, transplanting them into larger pots, removing all primocanes, and placing the pots under rain shelters and high tunnels. Plants bear for about seven weeks, and the farm gets a controlled and extended harvest of very high quality fruit.

Quebec growers are able to keep these plants going for a second harvest, and potentially longer. At end of the first crop, says Réjean, they cut the plants down to substrate, cluster the pots tightly together, put them under two layers of frost blankets and some snow fence, and winter them over. The high tunnel plastic is removed entirely because of their heavy snows. In spring, they keep two or three of the canes that come up and grow new long canes. This second winter, they tip the long cane plants on their sides, tightly stacking two rows of plants together, and again cover them with thick frost blankets. (Only the first year are the pots small enough to move to and from the cooler.) In Europe and UK, long-cane production is a one-harvest system, explained Réjean, because winters are more variable: growers there often get warm spells in the winter and plants kept outside like this will start to grow or they don’t have the same deep snows to protect against extreme cold.

Les Productions Horticoles Demers markets some berries at the farm and some to supermarkets in Canada. Some of their berries also make their way into U.S. via wholesalers. Observes Réjean, not a lot of California strawberries come in to compete with Canadian strawberries in the summer, but there are California raspberries year-round. Quebec growers can add a premium because their raspberries are local – and better. He figures he gets 20-30 tons/hectare, with a break-even of around $8.00/kilo, and that raspberries are currently more profitable for the farm than strawberries.

Other Quebec farmers have also been picking up the system. Our next stop was Ferme Onésime Pouliot, Inc, also a NARBA member. The farm is on the Île d’Orléans; this 21-mile long island in the St. Laurence River about 5 km from downtown Quebec City is a major agricultural producer, “the Garden of Quebec.” We learned that Quebec produces 61% of strawberries grown in Canada – and the little Île d’Orléans produces 30% of those from Quebec, along with lots of raspberries, grapes, and other crops – we even saw sweet potatoes being grown. Ferme Oniséme Pouliot had 100,000 long-cane plants last year and this year has 200,000 The farm raises 150 acres of strawberries and 13 acres of soilless long-cane raspberries. Already a nursery supplier for strawberry plants, they are now also offering long-cane plants for sale, selling mostly to other growers in Quebec but also to U.S. growers. At our conference in Savannah, Valerie Bernier-English from this farm made a presentation about long-cane production; you can find it in the online 2019 Proceedings.

Our final stop for the day, Polyculture Plante, also on the Isle d’Orléans, raises a wide variety of crops including strawberries, raspberries, vegetables, pumpkins, and sweet corn, and it sells both direct to the public and wholesale to more than 50 stores, with deliveries almost every day. For them, it is important to diversify their crops and markets and extend their growing season. Tunnels provide earlier harvest and extend production in fall. And using substrate helps with disease. Last year was their last year with field-grown raspberries – they had phytophthora in the soil and rain reduced shelf life. With substrate production, commented Simon Plante, growers can use their least fertile, rockiest soils for raspberries, not their best. They started with 0.8 hectare of long-cane production last year, and doubled that this year.

Simon estimates that tunnels increase yield by 3 – but also cost by 3. He figures the best way to improve the bottom line is by increasing yield. Last year, he got 1.3...
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Quebec Tour
Continued from page 9
kilos/plant, and is aiming for 1.4-1.5 kilos. He estimates payback for the structure at 6-8 years at 1.4/kilos per plant. However, with the variety Kwanza, he feels he might get 1.6-1.8 kilos/plant – they have it in the nursery and will try it next year.

These growers all continue to tweak their systems. Most are switching from using netting to contain the plants to horizontal rows of twine, 8-10 inches apart – it is much easier for pickers to get at the berries. They are also experimenting with different plastics and tunnel designs. Rejéan Demers comments that with their original gutter-connected Spanish type tunnels, they couldn’t spray on both sides of the rows because of the posts. Their most recently erected tunnels, designed and produced in Quebec, help solve this problem. He estimates that their new tunnels cost about C$ .76 sq ft. At several farms we saw a rain-shelter tunnels with the posts in line with the raspberry plants, so they can do double duty as trellis posts and don’t interfere with spraying. They are also trying different heights of structure.

Simon Plante says he may also try keeping the plants lower – their immigrant workers tend to be short. Each of these growers hires several hundred foreign workers, mostly Mexican, each year. They generally pay workers a minimum wage of $12.50/hour and are not allowed to pay piece rate if any part of the day is spent in non-harvest labor, like pulling a few weeds. Commented Simon when I asked about this, “It is a long day and workers can’t keep up a frantic pace. You also get problems with quality; you can’t motivate someone just with money.”

The long-cane system gives growers control of harvest-time and a very high quality crop, and all these growers are expanding production. Since the investment is large, with payback on the structures running many years, and since the technical aspects of substrate production can be challenging, it’s not a system just any grower can adopt – or even adapt. It’s a management-intensive system requiring careful attention to fertility and possible salt build-up in the coir substrate and irrigation up to 15 times a day. And there is a lot of labor involved in moving and managing all those the pots. Two things these Quebec growers have going for them is strong support for Canadian-grown produce, which helps them get premium prices, and a more reliable and state-managed system for foreign guest workers.

Over the following day and a half, we visited a variety of sites. At Fraisière Talfor, a smaller-scale grower and his family were raising strawberries in greenhouse trough systems, with several ingenious innovations he himself designed for managing the troughs. CETAB+, a college program offering degrees in organic agriculture, was starting a 5-year project trialing one-row tunnel structures covered with netting for both summer and fall raspberries. IRDA, the Research and Development Institute for the Agri-Environment, had replicated plots with variety of treatment using similar one row structures over raspberries: netting alone, plastic raincovers alone, combination of netting sides/plastic top, and no covers. They will be comparing growth, yields, berry quality, and SWD control. These forms of protected culture show promise for smaller scale growers, especially organic growers seeking spray-free SWD control. Our final farm stop was Bleuetière L&L, where...
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jsaca@wishfarms.com
WishFarms.com
Impressions of a First Blackberry Harvest
By Tom O’Brien, NARBA Southeast Region representative

Our first blackberry harvest recently ended, and it was an exciting experience for O’Brien Family Farms, Inc. We purchased a former draft horse breeding farm in Coats, North Carolina in 2017, started farm operations in January 2018, and planted three acres each of Natchez and Ouachita blackberries in March 2018. Approximately 15 months later our first commercial harvest began on May 27 and ended June 24. We believe that personal relationships are one of the biggest factors that create successful businesses and recognize that we could not have taken a single berry to market without the help of many, many people.

As we approached the start of our first harvest, I continued to marvel at these amazing plants. After a sea of white and some pink flowers in April, the small blackberries grew slowly from tiny green fruit, to larger green berries changing color to pale red, and then rapidly changing from red and unripe to shiny black plump fruit ready to pick, with green, red, and black fruit all within a few feet of each other. Many canes were so heavy with fruit that we could see the trellis wires sagging and the T-posts straining to remain upright. The new developing canes are more vigorous, significantly thicker in diameter, more upright, and denser than the canes producing our first harvest, an early good sign for our 2020 harvest.

Since we only used biologics with a zero-day preharvest interval, as we inspected our fields each day I felt comfortable picking the blackberries and popping them into my mouth. The experience of biting down on a sweet, juicy blackberry only a few seconds after picking and still warm from the sun as it explodes with a burst of flavor was unlike any eating experience I have ever had. I hope that I am conveying our sense of awe as we took these berries to market.

Harvest labor was a significant concern from the start of our farm planning. Would there be enough labor to harvest our berries? Would pickers show up when we needed them? Would our pickers be able to meet the quality standards of our buyer? We wrestled with the approach we should use to find and hire labor. Ultimately, we felt confident in the local labor pool and decided we would rely on a large banner to announce that we were hiring the 2019 harvest crew. Anticipating harvest starting at the end of May, we hung the banner in early May on our fence along the two-lane road that borders our property. The day we hung the banner we started getting phone calls from people who were interested in working with us. Once we saw the response, we breathed a sigh of relief that finding labor was not going to be a problem.

We had one week of ramp up, two weeks at peak production, and then the fourth week slowed down. At our peak in early June we had 16 pickers working five days a week. Our pickers were hard workers who labored in unusually hot (near 100°F) conditions during the first ten days of our harvest. I cannot say enough positive things about their attitude, work ethic, and desire to do a good job. None of our pickers had harvested blackberries previously, but they quickly understood the quality standards and food safety procedures we required. We had a blend of experienced agriculture workers, high school students, and recent graduates. I hope that we will again see many of them for our 2020 blackberry harvest.

Food safety is a major issue for any farm that sells fruit and vegetables. As a member of the Carolina Farm Stewardship Association (CFSA) we received, at no cost, consulting support to help us prepare for our first USDA Harmonized Good Agricultural Practices (HGAP) Audit. CFSA has a cadre of staff who are experts in food safety and especially in guiding new farmers through the process of developing a practical food safety plan tailored to farm-specific needs and products. While our plan turned out to be nearly 100 pages, including various standard operating procedures and logs, it is in large measure best practices and common sense captured in a written plan. It strictly follows the USDA audit criteria and is based on a template provided by CFSA. Special thanks to Chloe Johnson who worked with us in the final two months before our audit, did an on-site pre-audit, and was with us during the audit. She reduced our level of anxiety and deserves a lot of credit for our 100% passing grade on the HGAP audit. The USDA auditor was extremely professional and complimentary on our written plan, our demonstrated harvest process, and the importance we placed on food safety. The importance of passing this audit cannot be overstated. If we had not passed the audit, then our buyer could not purchase our blackberries.

The logistics of the harvest were daunting in large part because this was our first harvest. We had contracted to sell our entire crop to be individually quick frozen (IQF) and then packaged with strawberries and blueberries for a frozen three-berry blend sold in supermarkets across North Carolina and beyond. Our buyer (Keirstan Kure at Seal the Seasons) was great to work with and walked us through the process she needed us to follow using their reusable plastic trays that hold approximately 15 pounds of freshly picked blackberries. The manager of the Berry Cold packing facility, Royce Strickland, was extremely helpful and understanding that we were new to the scene. Prior to harvest we did

continued on page 15
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Impressions of a First Blackberry Harvest

Continued from page 13

a walk-through at the facility in Faison, NC, approximately 45 minutes east of our farm. After our meeting and walk through the Berry Cold facility, we felt comfortable that the deliveries to Berry Cold would go smoothly. As the harvest started to reach its peak, we were encouraged that our berry quality was excellent, our sugar content (brix) was high, and we had no hiccups with our deliveries.

Before the start of harvest, Mother Nature threw us an unexpected curve ball with a three-week plus drought across the eastern half of North Carolina and unusually high late spring temperatures approaching 100°. We had not installed an irrigation system since our understanding was that our area typically received plenty of rain in the spring and summer, and frequently, too much rain. Our bigger concern had been fungus diseases due to heavy overnight dew and rain at least three times a week. But that wet weather pattern changed to drought conditions in early May. With no rain and no irrigation, the result was a very significant reduction in our harvest. Rain began again at the end of May after we started our harvest and it likely saved us from a total loss.

Installation of the irrigation system we started working on after the harvest is nearly complete.

O’Brien Family Farms packed into reusable plastic trays for their buyer, who sells packaged frozen berries.

As I close this article, I want to thank some of the others who have helped us through plant selection, growing, and harvesting our blackberries. A special thanks to our son Sean (Director of Farm Operations), who worked tirelessly to make this harvest possible. Thanks to Dr. John Clark and Dr. Gina Fernandez, who provided very specific suggestions on which types of blackberries would do best in our sandy loam acidic soil and Raleigh-area climate. Phil Pense at Pense Nurseries guided us through our selection, purchase, shipping, and planting of the plants we bought from him. Marvin Williams, the previous Southeast Region NARBA representative, was extremely generous with his time and sharing advice that only a seasoned blackberry grower possesses. And, a special thanks to the NARBA Executive Council who welcomed me in January as the new Southeast Region representative and became another source of information and helpful advice. Our first harvest was an unforgettable experience and we are looking forward to what Marvin Williams calls a “blackberry explosion” for our 2020 harvest.
NORTH AMERICAN RASPBERRY & BLACKBERRY ASSOCIATION (NARBA)
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Working together to promote the production and marketing of raspberries and blackberries.

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