

SUMMER 2013

SMALL FARM QUARTERLY

Good Living and Good Farming – Connecting People, Land, and Communities



Feature Articles

- Workplace CSAs - Get Your Veggies While You Work . . .Page 4**
- The Case for Regional SeedPage 14**
- Where the Buffalo RoamPage 15**
- Sheep Barn Interior DesignPage 16**



SMALL FARM QUARTERLY - SUMMER 2013

TABLE OF CONTENTS

SMALL FARM PROGRAM UPDATE

Cornell Small Farms Program Update.....Page 3

BUSINESS MANAGEMENT

Passing on the Farm, by Maureen Duffy.....Page 7

FARM MEMOIR

The Disappearing Hay, by Stewart Cheney.....Page 13

GRAZING

The Calves Come Home, by Eric Noel.....Page 12

HORTICULTURE

Uncommon Fruits With Commercial Potential, Part 2, by Lee Reich.....Page 19

LIVESTOCK & POULTRY

Where the Buffalo Roam, by Amy Weakley.....Page 15

Sheep Barn Interior Design: Wooden Panels, by Ulf Kintzel.....Page 16

LOCAL FOODS & MARKETING

Locally Grown Beans in the College Cafeteria, by Rachel Carter.....Page 3

Workplace CSAs - Get Your Veggies While You Work, by Laura McDermott.....Page 4

Diversified Portfolio: Not just for Wall Street, by Mason Donovan.....Page 5

NEW FARMERS

Counting Our Blessings, by Emmaline Long and David Popielinski.....Page 8

NORTHEAST SARE SPOTLIGHT

Keeping Heifers Fit, by Rachel Whiteheart.....Page 9

PHOTO FEATURE

Horse Power, by Chandler Briggs.....Page 10

RESOURCE SPOTLIGHT

Growers Credit New York Berry Project, by Kara Lynn Dunn.....Page 6

SEED STORIES

The Case for Regional Seed, by Petra Page-Mann.....Page 14

SMALL FARM SPOTLIGHT

Making it Work: Couple Transforms Fallow Plot into Viable Farm, by Jaclyn Bruntfield.....Page 17

STEWARDSHIP & NATURE

Elderberry and Beyond: New Options for River Lands in the Northeast, by Liz Brownlee and Conner Stedman.....Page 18

YOUTH PAGE

I Love New York Agriculture Art & Writing Contest.....Page 10

Cover photo:

Gabriel Michaud and his calf Butterfly enjoying a Kingdom Creamery ice cream cone.

Photo courtesy of Kingdom Creamery

SMALL FARM QUARTERLY

Good Farming and Good Living —
Connecting People, Land, and Communities

Small Farm Quarterly is for farmers and farm families — including spouses and children - who value the quality of life that smaller farms provide.

OUR GOALS ARE TO:

- Celebrate the Northeast region's smaller farms;
- Inspire and inform farm families and their supporters;
- Help farmers share expertise and opinions with each other;
- Increase awareness of the benefits that small farms contribute to society and the environment;
- Share important research, extension, and other resources.

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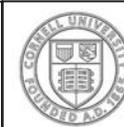
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Cornell Small Farms Program Update

Heatwave? Watch Sustainable Farm Energy Webinars Online Anytime!

Need a break from summer heat? If you missed any of the lunchtime webinars in the "New Generation Energy: Sustainable Power for Your Farm & Homestead" series this past March-April, you can stream them online anytime by visiting <https://smallfarms.cornell.edu/resources/farm-energy/>. Learn more about passive solar, radiant heat, solar electric, wind power, compost heat, and services that installers provide in this 4-part series. You'll also be able to get descriptions of each webinar and download PDF files of the slideshows. We've posted plenty of other sustainable farm energy resources at this page, too, awaiting you for a heat break, or an evening read! Enjoy!

2013 Online Farming Courses: Registration Opens Soon

Registration opens Aug. 1 for 2013-14 online farming courses offered by our Northeast Beginning Farmers Project. These interactive 5- to 7-week courses are led by experienced educators and farmers and connect you to the information and people you need to start a successful farm business or diversify your farm. Courses help you establish clear goals, assess personal resources, plan marketing, create budgets, set up record-keeping, navigate regulations, choose the right equipment, improve soil, get organically certified, write a business plan, and learn how to raise veggies, berries and chickens. The classes are primarily targeted to those farming (or planning to farm) in the Northeastern U.S., though most of the courses are also appropriate for those outside this region. Visit the course calendar or course descriptions to see the offerings of all our courses organized by season <http://nebeginningfarmers.org/online-courses/>.

Message from the Managing Editor

Happy Summer! Here on the agriculture quad, students have left for summer internships, faculty and technicians are in the fields doing research, and the campus gardens are the most lively place to be!

This Spring we hosted a writing workshop for farmers and agriculture educators called "Telling Better Stories." Over the years, I've noticed that there is a dearth of formal training opportunities for those that tell the stories of farming. While agriculture is chockfull of the ingredients good stories are made of – love, sweat, tears, birth, death, drought, harvest, to mention a few – weaving the details into a compelling narrative requires skill and practice. Fifty farmers and educators joined us on the Cornell campus to take the full-day workshop from professional journalists. As post-workshop homework, attendees were required to submit an article or photo to be featured in this magazine. While we don't have room to feature everything, we hope you enjoy seeing participants work scattered throughout the next several issues. Other submissions are posted on our "Storyshare" pages. Visit www.smallfarms.cornell.edu and click on projects > Telling Better Stories > Storyshare.

If a refresher on writing tips sounds like something you could benefit from, you'll be pleased to learn we posted handouts and videos from the workshop sessions at the address above.

Do you chronicle seed selection, tool invention, animal husbandry, or other aspects of farm life? We hope you'll consider sharing one of *your* stories with us! Instructions for submitting to the magazine are posted at our website. Click on "Quarterly."

Best wishes for a fruitful growing season!

Violet



Violet Stone

How can I get Small Farm Quarterly?

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LOCAL FOODS

Locally Grown Beans in the College Cafeteria

Vermont's Farm to Plate Network offers farmer and producer examples of navigating the regional supply food chain to serve 'local' at institutions

by Rachel Carter

School, hospitals, colleges, government agencies, and corporations are demanding food grown and produced in New England. Farmers interested in selling to hospitals, schools, and other organizations are following the food supply chain by connecting first with local or nearby food hubs to better assess supply and demand. Food hubs and processing centers have easier access to distribution channels and can help farmers and food producers identify and build market opportunities.

Vermont Bean Crafters makes bean burgers and dips out of organically-grown Vermont beans, veggies, and grains. Dried bean varieties are purchased directly from organic farmers in New England and produced at the Mad River Food Hub in Waitsfield, VT. "The University of Vermont just swapped our black bean burger in place of Gardenburger and Devine burgers at all eight campus dining locations," says Joe Bossen of Vermont Bean Crafters. "We're also working with Fletcher Allen Healthcare to have our bean burgers more widely distributed throughout hospital food services."

Bossen finds value-added food products as financially viable given the constraints of budgetary challenges and publically traded 'commodity' markets. "On the whole, I've been impressed with chefs and purchasing agents willing to sit across the table from us small producers and their general willingness to make the local/regional food tran-

sition happen." Vermont Bean Crafters products are also distributed through Black River Produce.

Supplying locally grown food within 150 miles from their home base in Springfield, VT, Black River Produce distributes to more than 2,000 wholesale customers across Vermont, New Hampshire and parts of New York and Massachusetts. "We distribute local farm products to stores, schools, restaurants, clubs, camps, ski areas, hospitals, nursing homes, and farm stands. Larger contract management companies like Sodexo, the Vermont State Colleges food service provider, often require pre-approved vendor contracts that can be a major hurdle for small producers and farmers. By selling through a wholesale distributor, producers avoid the more stringent process of becoming an approved vendor, which can really facilitate the ability to sell to institutions," says Scott Sparks, vice president of sales at Black River Produce.

Kingdom Creamery of Vermont is a family-owned dairy farm and business, specializing in yogurt and ice cream, experiencing recent growth in institutional markets-offering both a reliable cash flow source and brand identity. "The institutional marketplace provides a more stable and consistent customer base than traditional retail markets. We have achieved moderate success within institutional markets. By working with local schools and institutions we have been able to broaden our product portfolio, and build relationships within the state and tie it directly to our family farm," shares Jeremy Michaud of Kingdom Creamery.

Small Vermont farmers committed to farm to school relationships are working with local food hubs to sell directly to local school and increase the number of young people in the farm community eating lunches made with healthy, fresh, local food.

Vermont's Harlow Farm sells produce as the brand Westminster Organics for multiple Whole Foods accounts, yet wanted to see their produce served at local schools. "We started working with the Windham Farm and Food Network to distribute to area schools across the county. While it is a slightly lower price point than what we can get from Whole Foods, we are able to make it work for our business, and love the rewards of knowing we are providing local produce to children through school lunches," comments Paul Harlow of Westminster Organics/Harlow Farm.

Whether farmers choose to work with local processing units, regional distributors, or directly with schools in their community, building successful relationships is essential. Radical Roots Farm in Rutland, VT, grows vegetables for a 70-member CSA, two farmer's markets, and the local school system. "Developing an open, honest, and mutually beneficial relationship with the school food service professionals is essential. We are lucky — the people who provide food for the schools in our area care deeply about the children in their community. We sit down together in the winter and plan out how our farm can grow some of the vegetables they will need during the school year. Honesty and dependability are key. As farmers, we need to be sure we don't over-promise and that we can actually deliver what we agreed to in the winter," offers Carol Tashie of Radical Roots Farm.

Farmers interested in exploring farm to institution are also encouraged to look at industry trends. "Beans!" exclaims Joe Bossen of Vermont Bean Crafters. "And general staple food ingredients like



Vermont Bean Crafters burger display at Black River Produce food show.

Photo by Rachel Carter



Radical Roots Farm of Rutland, VT is finding success farm to institution efforts on a local scale.

Photo by Radical Roots Farm



Fletcher Allen Hospital partners with over 70 local food producers and serves more than two million meals a year, making it the largest restaurant in Vermont.

Photo by Fletcher Allen Healthcare

See Beans page 4

LOCAL FOODS

Workplace CSAs - Get Your Veggies While You Work

Pilot Program Increases Farmer's Business and Employee Wellness

by Laura McDermott

Despite an abundance of farmers markets and farm stands, consumers still purchase produce at grocery stores. Let's face it — people go to the grocery store because it's easy. So how can we make purchasing locally grown produce easier?

In early winter of 2012, Cornell Cooperative Extension and Adirondack Harvest worked together to attempt to answer this question. The goal of the project was to increase customer access through a convenient marketing plan for locally grown food.

CSA stands for Community Supported Agriculture. CSAs have existed since the 1980s and are an important market channel for many vegetable farms. CSAs are not limited to vegetables however — fruit, flower, egg, meat, cheese and many value added items are also part of the CSA model.

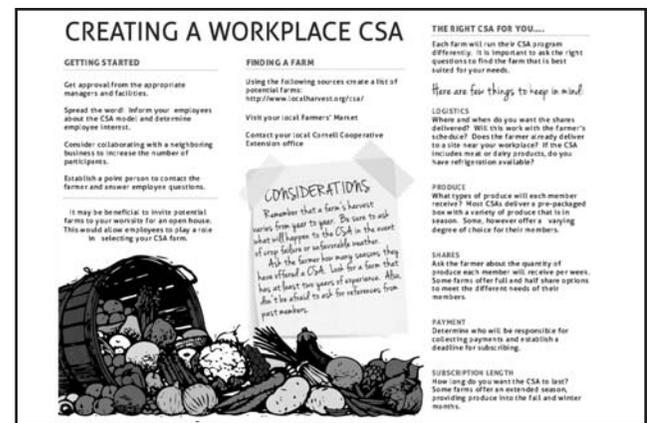
Historically, CSAs endeavored to include the consumer in the process and risk of farming — the pre-purchase of shares was described as more of an investment in farming than an investment in groceries. Customers were often required to participate in some of the farm labor — again as a way to assist the farmer, but also to help the consumer understand what took place on a farm. A CSA consumer — or subscriber — purchased a share that promised to provide a weekly mixture of produce for approximately 20 weeks. This weekly share could be picked up at the farm or another pre-determined location. Usually the subscriber would receive a mixture of produce that would be determined by the availability of the crop.

Some CSAs still operate in this fashion, but over time the CSA model has morphed into less of a 'share the risk' model and more of a 'share the wealth' model. Farmers have worked hard to make CSAs into a convenience driven market option for consumers by offering 'free choice' shares and even customizable shares using software like Farmigo (www.farmigo.com) to

This project sought to inform employers that are mindful of wellness initiatives about the feasibility of sponsoring a CSA. Ongoing health promotion efforts set the stage for increasing consumption of locally grown produce while also helping farmers develop non-traditional markets. Several informational meetings were held for farmers, businesses and consumers. Because the timing wasn't perfect — the last training was held in mid-April — we were very pleased to have one farmer able to offer CSA shares to 50 subscribers at three different businesses. Deliveries were made on the same day, and the largest employer negotiated a farmers market to be held in their parking lot on the same day.

"There are a lot of businesses out there, and there are a lot of farmers. It's a perfect match up," said Adam Hainer, co-owner of Juniper Hill Farm in Westport, NY who also offered a Worksite CSA in Plattsburgh in 2012. "We wanted to increase the CSA component of our market, but because of our location we weren't seeing much growth," said Hainer. "We had to make it more convenient. We needed to make a decision to get more food to more people." Adam decided that for the first few years he would allow companies that had a minimum of 10 subscribers to be a drop-off location IF there were other businesses contributing to at least 50 total subscribers for a single day delivery. The other requirement is that each business had to have an on-site coordinator to act as the liaison between the farmer and the consumer or the employer. This position proved to be critical — especially during the first season. "There were some problems," said Hainer, "like what to do with a share if an employee was sick — or forgot that they were going on vacation. The coordinator really helped iron out those wrinkles."

During the fall, the subscribers were surveyed. None of the responders had ever been CSA subscribers before this project. The majority of the responses indicated that the value and the quality of the produce delivered to their worksite exceeded that of a grocery store. 100 percent of the respondents said that their consumption



Download detailed brochures with info on getting started for both farmers and businesses at the Cornell Small Farms Program website.

Photo by Laura McDermott

of fresh vegetables increased as a result of being a CSA member. 77.8 percent indicated that they would definitely join a CSA in the future. Some of the comments included, "Very convenient, drop off at work. I loved the variety and being able to choose from veggies that I wouldn't ordinarily purchase in the store" and "I was surprised at the high quality of the product and the abundance."

Adirondack Harvest has continued to assist with promoting the Worksite CSA concept to local businesses. At an April 4, 2013 meeting in Ballston Spa, NY several more farmers were in attendance and at least one of them has a Worksite CSA in development. Cara Fraver of Quincy Farm in Easton, NY plans to offer CSA shares at a local YMCA, so that facility staff, members and general public could pick up their shares at a convenient time. Quincy Farm has also made sales pitches to other companies, but with no luck yet. "We seem to hit a block with liability and corporate rules prohibiting contracting with just one vendor," reported Fraver. "We might be able to overcome that if we had the passionate employee that could act as our coordinator and advocate."

At that same meeting Adam Hainer reported that he had finalized a contract with a firm in Plattsburgh and had sold over 100 shares through a payroll deduction format that was offered to him by the business owners. His Glens Falls locations are all participating in 2013 and subscriptions look to be up by 15 percent. He continues to stress the increased consumption of fresh vegetables as being the most important part of a corporate wellness plan. "If companies are offering free memberships to gyms, why not access to a Worksite CSA?" asks Hainer.

Teresa Whalen of Adirondack Harvest is hopeful workplace CSAs will become a popular trend. "It's all about education and awareness," Whalen said. "The employees want this, and they understand the benefits. Now we need to convince the employers."

For more information on this project, and to download free informational brochures for employer and farmer training, please visit the Cornell Small Farms website at: <http://smallfarms.cornell.edu/projects/grants/>. Click on 'Promoting Workplace CSA in the Southern Adirondacks'.

Laura McDermott is the Berry Extension Specialist for the Eastern NY Commercial Horticulture Program. She can be reached at 518-791-5038 or email her at lmg4@cornell.edu.

For Businesses: Creating a Workplace CSA

Getting Started

- Get approval from the appropriate managers and facilities.
- Spread the word! Inform your employees about the CSA model and determine employee interest.
- Consider collaborating with a neighboring business to increase the number of participants.
- Establish a point person to contact the farmer and answer employee questions.

Finding a Farm

- To create a list of potential farms, visit www.localharvest.org/csa/. Check out your local Farmers Market or contact your local Cooperative Extension office

The Right CSA for You

Each farm will run their CSA program differently. It is important to ask the right questions to find the farm that is best suited for your needs.

- Logistics: Where and when do you want the shares delivered? Will this work with the farmer's schedule? Does the farmer already deliver to a site near your workplace? If the CSA includes meat or dairy products, do you have refrigeration available?
- Produce: What types of produce will each member receive? Most CSAs deliver a pre-packaged box with a variety of produce that is in season. Some, however offer a varying degree of choice for their members.
- Shares: Ask the farmer about the quantity of produce each member will receive per week. Some farms offer full and half share options to meet the different needs of their members.
- Payment: Determine who will be responsible for collecting payments and establish a deadline for subscribing.
- Subscription Length: How long do you want the CSA to last? Some farms offer an extended season, providing produce into the fall and winter months.

Beans from page 3

corn meal and local grains — not to replace the bread basket, but to meet nutritional guidelines while incorporating locally grown and produced items."

Both Bossen and Black River Produce stress extended season greens and lightly processed vegetables, such as lacto-fermentation, core to strengthening market opportunities. "Extending seasonal accessibility to provide the volume needed to match price points in budgets are more than a trend-this is becoming the reality and it's much easier now than ever to have that discussion," comments Sean Buchanan, business development manager at Black River Produce.

Rooted in the farm to school movement, Farm to Institution New England (FINE) is the leading Northeast resource connecting organizations, agencies, businesses, and funders with the regional food supply chain to strengthen food production and consumption.

Peter Allison, coordinator for FINE, says there are many opportunities for food producers and processors to market to the institutional

food service system. "In Massachusetts, the Western Mass Food Processing Center shared use facility works closely with farmers to develop lightly processed foods that also meet the farmer's bottom-line. FINE is also beginning research that will further help elucidate the benefits farmers gain by working with institutions, such as the ability to scale up production through new contracts with larger institutional clients."

The Vermont Farm to Plate Network, legislatively directed to double local food access and production by 2020, is helping farmers develop relationships with distributors through matchmaking events and peer to peer collaborations. The newly launched Vermont Food System Atlas provides a searchable mapping tool to help farmers build relationships with distributors, processing centers, other farmers, and all entities representing the state's food system. Food Solutions New England provides details on how all New England states are rebuilding local food systems and connects the work each state is conducting regionally.

Rachel Carter is a Vermont entrepreneur, homesteader, journalist,

and business owner.

The Vermont Farm to Plate Network is weaving together all components of Vermont's food system to strengthen the working landscape, build the resilience of farms, improve environmental quality, and increase local food access for all Vermonters. Explore the Vermont Food System Atlas at www.vtfoodatlas.com.

Connect with Article Sources!

Farm to Institution New England - <http://www.farmtoinstitution.org/>
 Food Solutions New England - <http://www.foodsolution-sne.org/>
 Vermont Food System Atlas - <http://www.vtfoodatlas.com>
 Vermont Bean Crafters - <http://vermontbeancrafters.com/>
 Black River Produce - <http://www.blackriverproduce.com/>
 Kingdom Creamery of Vermont - <http://kingdomcreamery-ofvermont.com/>
 Harlow Farm - <http://harlowfarm.com/>
 Radical Roots Farm - <http://www.radicalrootsvt.com/>

LOCAL FOODS

Diversified Portfolio: Not just for Wall Street

by Mason Donovan

Open any financial advice magazine over the past decade and the single most popular advice given will be to make sure you maintain a diversified portfolio; basically, spread your money over many different funds and investment vehicles. They even have widgets which will rebalance your accounts and suggest different investments based on your particular goals such as education, retirement, or home ownership. The same sage advice with a slightly different twist can be given to any small farmer. Unless you are a mega-industrial farmer, relying on one crop is not a good recipe for long term success.

Long term success is something the Courser Farm in Warner, NH knows a little bit about. The Courser family has been managing over 1,500 acres of farmland for 100 years. The family farm has survived two world wars, the Great Depression and the great recession in addition to the constantly changing American diet. Originally focusing on timber and corn, the family has expanded its offerings along the way. They've added pumpkins, maple syrup and hay to the list. Timber is sold to saw mills while corn continues to be a road side stand crowd attractor. Maple syrup has its peak in March while pumpkins round out the year in the fall.

Creating an array of products which not only target different audiences, but also different times of the year creates a healthier portfolio to maintain a continual revenue stream. Putting all of your eggs in one basket (pun intended) can create make-it or break-it financial moments.

Diversifying your product sales channels will also make a big difference. For example, the Coursers leverage their pumpkins as an entertainment venue by inviting carvers to a weekend jack-o-lantern festival. Their maple syrup gets visitors out to their sugar shack during New Hampshire maple weekends. The timber sales allow them to tap into the commercial market. This healthy diverse balance provides a more stable enterprise.

However, like any long term family farm, the Coursers understand they must change with the times and be open to emerging trends. They don't have one of those financial balancing and suggestion widgets, but they do have four generations of working experience. Emma Course Bates is a member of that fourth generation forging into new territories. Emma is the founder of Courser Farm Kitchen, a gluten free bakery.

After several of her family members were diagnosed with Celiac disease (caused by adverse reaction to gluten), she started cooking up gluten free baked goods. It wasn't long before she realized there was an entire group of people the farm was not currently catering to. The kitchen quickly started up and she was staking out a stand at farmers markets across the region. "Many buyers who were not gluten intolerant were reluctant to buy gluten free baked goods," Emma noted, so she expanded once more into a long time favorite of hers, home-made granola.

"Granola allowed me to reach a wider audience," she said. When asked to define her target audience, Emma said she was working on getting a



Emma and her cooking assistant, Emily, cooking a batch of Maple Nut granola.

more narrow definition. Celiac affects twice as many females than males, so she concedes the gluten free aspect is probably more luring to women. However, granola has given her access to both the gluten-free and the mainstream crowd.

Courser Farm Kitchen has also given the Courser family their first step into the online world with www.CourserFarmKitchen.com. Although, the majority of buyers are currently local, there is a growing clientele of out-of-state buyers. Best of all, granola is a year round product. Business has picked up enough for Emma to move her operations to a nearby commercial kitchen where she will spend ten hours mixing, baking and packaging seven different flavors of granola. One of her flavors, Maple Nut, also allows this product extension to draw upon one of the popular farm products, maple syrup.

Knowing when to divest is just as important as when to invest as well. One of the flavors which

went to the graveyard was Peanut Butter Banana because of all of the peanut allergies. New flavors take into concern other allergies such as sulfate, so some mixes have no dried fruit.

The Courser Farm Kitchen concept has sparked conversation as to where the farm family business will be when the fifth generation is old enough to climb onto the tractor. Their overarching strategy is as sound as any financial manager could give. They maintain an inclusive approach which has allowed them to reach a much wider group of buyers. Their focus on diversifying their portfolio of products and sales channels provides a return in every season. After all diversity and inclusion is not just something reserved for Wall Street.

Mason Donovan is an author of The Inclusion Dividend: Why Investing in Diversity & Inclusion Pays Off and the founder of the agriculture based community program, The Yard Project.

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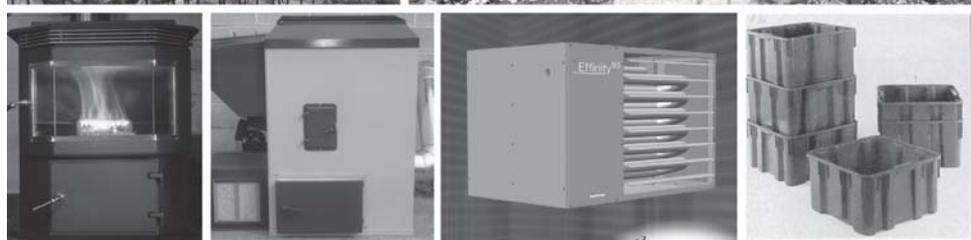
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RESOURCE SPOTLIGHT**Growers Credit New York Berry Project for Successful Start-Up**

by Kara Lynn Dunn

If you're thinking about starting a farm enterprise focused on growing berries, Elaine and Karl Guppy will tell you to go to back to school at Cornell University first.

"We have taken almost every production and business management workshop offered by the Cornell University New York Berry Project," Elaine says. "The learning opportunities are packed with so much information, it is like taking an entire Cornell course in one day, and they are often free."

The New York Berry Project makes the expertise of Cornell's Horticulture Department Chair Dr. Marvin Pritts and Cooperative Extension fruit specialists Cathy Heidenreich and Laura McDermott available to growers statewide.

The project has funding from the New York Farm Viability Institute to offer workshops, webinars, on-farm demonstrations, and one-on-one interaction.

Elaine and Karl operate Guppy's Berry Farm, LLC in West Monroe, NY, and say learning all they could before they began preparing their land was a key to their start-up success.

"The Berry Project was invaluable to helping us get started with wonderful technical support. When we started, we only knew we wanted to plant berries," Elaine says.

The Guppys have attended workshops, taken field trips, and visited the Cornell berry plots. They avidly read the New York Berry News published 12 times a year with the latest research information from Cornell and the USDA, Berry Barometer month-by-month tips for the best cultural practices and pest management solutions, policy and regulation news, and workshop and event notices. Growers can find it online at www.fruit.cornell.edu/nybn or request a monthly e-mail notification of the contents.

"One of the biggest tips Dr. Pritts gave us early on was to test our soil and make sure we had the right nutrients for blueberries," Karl says. "We learned everything we could about pH, soil testing, fertilizers, etc."

In 2008, they removed pinewoods from five acres and, a year later, they established their LLC.

In 2010, they hand-planted 2,000 certified disease-free blueberry plants, painstakingly measuring spacing between plants and rows.

"Cathy's advice helped us select the best varieties for fresh flavor, shelf life, and disease resistance, which was especially important for us as new growers to not have to deal with issues such as mummy berry," Elaine says.

In 2011, when an early frost destroyed nearly one-half of their crop and then Japanese beetles arrived, the Guppys turned to the berry team for training on temperature mod-

eration methods, irrigation, and pest control.

"They are always just a call, email, or workshop away," Elaine says.

The Guppys dug a pond and added irrigation to their fields. Karl built a motion sensor tower that triggers a radio and light show that has successfully kept deer out of the berries. He constructed bat boxes that attract the night fliers to help control some pests.

The project leaders helped the Guppys identify USDA grant funding to help pay for development of marketing materials, including product packaging, labels, and signage with a distinctive farm logo.

A primary sales point is the Syracuse Regional Market, about a 35 minute drive from the farm.

"There are a lot of farms selling blueberries at the market - three in my row alone - but people have taken the time to get to know us and our berries and now they search for our booth," Elaine says.

Their continuing education plan in 2013 has them completing their Good Agricultural Practices certification.

"We are still learning and planning to enlarge our business as we approach retirement. It is great to work with the Cornell people who study berries and know what we should do and not do before we do it," Karl says.

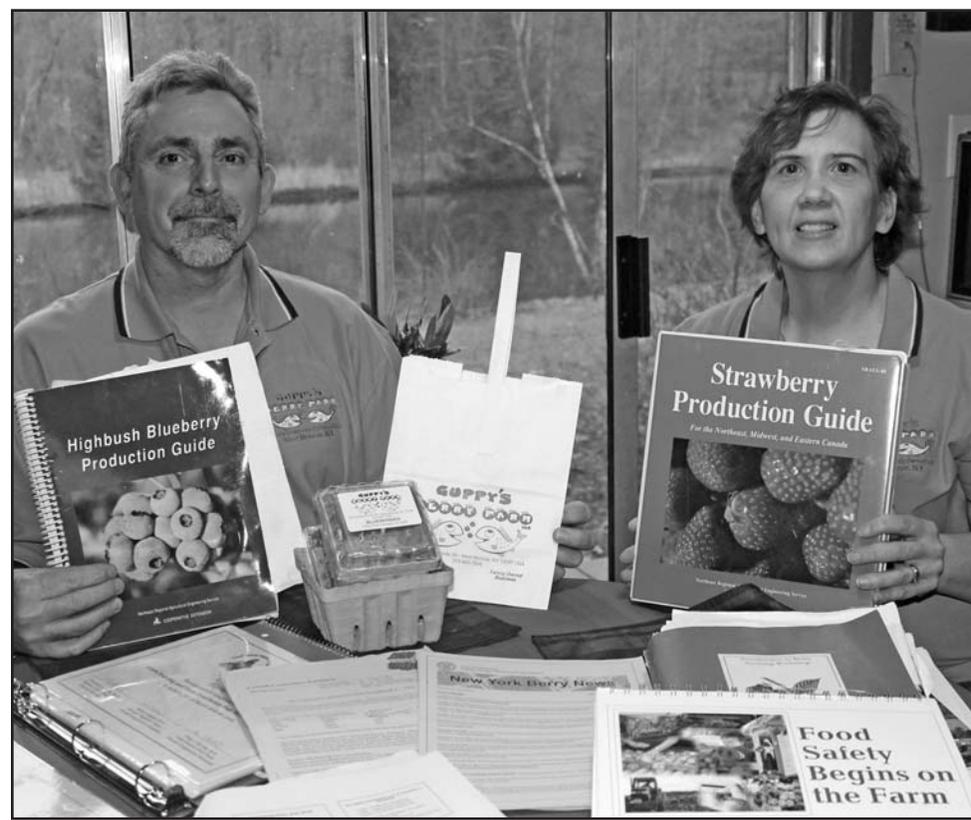
"We wouldn't be where we are today without the experience and knowledge the New York Berry Project shared to get us started," Elaine adds.

The Guppys see a future with more blueberry plants, a low tunnel for ever-bearing strawberry production, expanded blackberry production, and perhaps some juneberries (they attended a September 2012 workshop on juneberries, which like soil conditions similar to blueberries).

A daughter-in-law has expressed interest in starting a commercial kitchen to make jams and other value-added products.

For its part, the New York Farm Viability Institute (NYFVI) has also funded high tunnel season extension research and value-added crop enhancement opportunities for berry growers.

In 2013, with NYFVI funding, Dr. Pritts began recruiting commercial growers who have been in business at least three years and with sales, preferably of two types of



Karl and Elaine Guppy with some New York Berry Project educational resources they used to begin and grow their farming enterprise.

Photo by Brian P. Whattam

Other Resources for Northeast Berry Growers

- Berry Crop Label Alerts - The latest registrations, updates, label changes, and more.
- Pest Management Guidelines for Berry Crops: Critical pesticide information for managing diseases, insects, mites, weeds, wildlife, and nutrients.
- Berry Diagnostic Tool - A pictorial aid to diagnosing physiological disorders and pest problems of berry crops. Includes direct links to Pest Management Guidelines for Berry Crops from pest description pages.
- Nursery Guide for Berry and Small Fruit Crops - This two-part nursery guide for berry growers cross references scores of cultivars with the nurseries that sell them.
- Berry Webinar Archive - View and listen to online berry web seminars on topics including weed control, varieties, insects, and nutrient needs.

berries, in 2012 to evaluate the use of a berry farm-specific business summary. Horticultural marketing expert Dr. Bradley Rickard with the Dyson School of Applied Economics and Management at Cornell is part of the evaluation team.

The farm business summary project will collect crop production data for developing crop budgets for strawberry, blueberry and raspberry crops, and will collect economic data to create benchmarks for business evaluation. This effort builds on the Cornell-developed Fruit Farm Business Summary successfully used by tree fruit growers to improve their

return-on-investment for more than 10 years. No doubt the Guppys will make good use of that berry business training in the future.

Kara Lynn Dunn is a freelance writer, coordinator of the NYFVI series in *American Agriculturist* magazine, and publicist for the Northern New York Agricultural Development Program. She can be reached at 315-465-7578 or karalynn@gisco.net.

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BUSINESS MANAGEMENT**Passing on the Farm**

Loyalty to the land is deeply entrenched in the souls of most farm families. To keep the farm operating, there is no better time than now to talk about transfer.

by Maureen Duffy

Transferring the farm is a tough topic for many parents and children to discuss. However to keep the farm operating, there is no better time than now.

Property ownership, business control and death are topics many people would rather avoid all together. Not talking about it only causes strain between family members, resulting in disagreements and farms being sold. If you don't want these results, sit down and take the time to seriously look at the issues needed to address succession and estate planning.

"Sometimes it's difficult but you need to start talking," said Mike Sciabarrasi, extension professor of Agricultural Business Management at the University of New Hampshire. While conducting a workshop titled "Transferring the Farm," Sciabarrasi noted that there are many factors contributing to family discussions such as debt, health care, money for retirement, taxes and fair treatment of all children. It is all important and farm families need to strategically think and talk about it.

For the Fabrizio family, the progress of the farm snowballed. After purchasing the farm in 1967, the Fabrizios began planting apple trees to create Windy Ridge Orchard. The five Fabrizio kids were always involved in the farm and still are today. However, it is Sheila who has decided to stay on the farm with the incredible mountain view in the distance.

When Sheila returned to the farm ten years ago, she — along with the support of her parents — worked on finding a way to create an enterprise within the apple operation. She conducted a trial to see if she could make a living from the land. Sheila first tested the market with a donut wagon before investing in a café and found it to be profitable.

"We knew we had to diversify from the wholesale apple market for the farm to continue," noted Dick. "When Sheila decided to farm we added nature trails, farm animals and a playground. At the time, we didn't

want to invest too much until we knew that Sheila was definitely going to stay. After ten years the test has held true."

The visitor season needed to be extended for Sheila's livelihood. She has successfully accomplished this by planting a pick-your-own blueberry patch and building the Cider House Café where visitors can enjoy a snack or meal. "We open the end of June and close at Christmas," said Sheila. "We have made it a family destination location with a good feel — a place where families can come and enjoy the day."

Windy Ridge continues to expand. The first expansion was the Christmas tree plantation in 1989. People can enjoy the holiday season with a wagon ride, cut their own tree and purchase presents at the gift shop. "New projects and products keep things interesting," said Dick. "And customers come looking to see what is new and different."

The newest addition — Seven Birches Winery and an event center. Wines are now being crafted on the farm. It is another item that visitors are looking for, wines made with local fruits such as apples, blueberries and pumpkins from Windy Ridge as well as crafted grape wines. The event center offers an area for special gathering such as weddings and family reunions.

"Time slips by quickly and estate planning is a subject that people often think we'll do tomorrow," noted Ann. "If it hadn't been for Sheila's energy and enthusiasm we probably would have called it quits by now. Her eagerness helped move the farm forward to what it is today. Plus she has brought the farm to the world through the internet with a Web page and Facebook. It's what people are looking for these days."

Sheila's four siblings all want to be part of the farm at some capacity so that it is always their family farm. "We aren't the type of family to have an official meeting or plan but we talk over breakfast or at a coffee break," mentioned Sheila. "Mom and Dad have planned well with life and long-term care insurance. They also have divided all assets equally between us kids. It's not easy



Sheila Fabrizio holds son Max, and proudly stands with her parents, Dick and Ann.
Photo by Maureen Duffy

to talk about — there are a lot of unknowns."

It is a blessing that all family members get along and are interested in the success of the farm. "We have all been involved in family discussions," said Sheila. "It's our mom's and dad's legacy and we don't want that to fall apart. That would be the worst case scenario."

The other component that has worked for the family during the business transition is that they all have their own areas they are in charge of. Dick takes care of the apple orchard and wholesale, Ann manages the gift store and Sheila tends to the café and event center.

Farm families often need a place to start and sometimes having a facilitator at a family meeting can help. "Savings accounts, IRAs can be liquidated but a farm is often dear to the hearts of farmers and something families usually want to hold together. Transferring farms can be complicated and challenging on family dynamics," explains Matt Strassberg with the New Hampshire Mediation Program. "In most cases a desirable outcome is found but sometimes the math doesn't work," said Strassberg.

"Sometimes parents have to sell the farm because they need the money to deal with loans or for long-term care costs. It is an emotional issue for many people."

Strassberg suggests that families contact an Agricultural Mediation Program sooner rather than later. "The kitchen table is also the board room table," noted Strassberg. "The people you work with are also your family that you celebrate holidays with. Farm transitions can naturally impact other areas of the family which may magnify conflict. Our job is to facilitate a calm rational discussion with all of those involved."

No matter how your family decides to deal with transferring the farm, it is a subject that needs to be addressed. Perhaps it is as simple as talking about it while planting the garden or over coffee. Whatever the case, a conversation and plan of action will ease the process as much as possible.

Maureen Duffy works for the New Hampshire Farm Bureau as the Communications Director and Young Farmer Coordinator. She can be reached at 603-224-1934 or via e-mail editor@nhfarm-bureau.org.



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NEW FARMERS**Counting Our Blessings****Lessons Learned from Raising Heritage Lincoln Longwool Sheep**

by Emmaline Long and David Popielinski



Emmaline with a newborn Lincoln lamb.

If you ask which life experiences have had the most profound impact on us, our answer may surprise you. "Sheep?" you would ask. "Why sheep?" Well, it all started with a Blessing in the form of a Lincoln Longwool sheep.

Blessing came to Dave Popielinski of Rocky Knoll Acres while he was in middle school through the Youth Conservationist Program, which encourages youth to raise rare heritage breeds of sheep. Little did we know she would indeed be a blessing to both of us. Emmaline Long of Orchard View Farm met Dave and Blessing at an agricultural fair in the fifth grade. She was so inspired that two years later, she purchased a pair of Lincolns to call her own. Thirteen years after Blessing connected us, Dave has 15 and Emmaline has 35 registered Lincoln Longwools.

Lincoln Longwools are a relatively large breed of sheep that was developed in the Lincolnshire region of England and was brought to the United States in the mid-1800s. While it is traditionally bred for its lustrous wool, the Lincoln is a multi-purpose breed that is large and heavily built. As with many larger breeds of animals, they are calm with a gentle disposition. Their fleece can either be white or natural colored (ranging from black to light charcoal) and is classified as coarse in texture. They have been a great breed for both of us and are the only breed that we raise.

As we have grown up over the past decade, our Lincolns have taught us a great many lessons we feel are good guidance for young farmers looking to partake in the many blessings that come from raising heritage farm animals.

1. Educate, educate, educate: Education in agriculture happens on many levels. We do our part by attending fairs, festivals and other small community events with our Lincolns, both around our communities in Western NY and throughout the Northeast. While questions about our "goats" can be as frustrating as they are amusing, attending these events is a great way for us to not only educate people about agriculture and sheep in general, but also to teach people about the unique nature of our heritage breed. Also, because our breed is so rare we have often walked into the show ring at fairs to find judges' faces clearly begging the question, "What on earth is that?!" We're no longer surprised at being the odd ones out at our local county fairs, and celebrate our animals' rarity as an opportunity to educate those around us.

2. If at first you don't succeed, try, try, try again: Placing last in anything is never easy, but it is probably the most motivating place to be in the show ring. We have experienced placing last at shows large and small, but over years of showing we have steadily worked our way up the line. When we started, neither of us had any idea how to

get a sheep ready for show; how to wash it, condition it, trim it, and more importantly, how to breed our animals to improve our flocks. Neither of us claims to be an expert, but we've definitely come a long way.

3. Sometimes the people you meet along the way make all the difference: If there's one thing that contributes more than the sheep themselves in making Lincolns a wonderful breed to raise, it's the other people who raise them. The Lincoln breeders we show with from around the United States are some of the most encouraging and supportive people we have ever encountered. From the very first shows, when we were naive rookies, to now as young adults striving to place better each year, they never fail to share their knowledge and help us become better herds-men. Our Lincolns have taught us to always surround yourself with positive people who share their experiences and encourage you in yours.

4. Sheep will find every burdock in the field: If there's one thing we have learned about raising a wool breed of sheep, it's that no matter how much time you spend in the pasture digging up burdocks, thistles, and other troublesome weeds, your sheep will always manage to find the one you miss. And good luck getting that out later...



Lincoln Longwools out to pasture at Orchard View Farm.

They're a bit like we were growing up: always managing to get ourselves in a little bit of trouble that we would have to work ourselves out of later. Man or beast, it seems that we all have a burdock stuck to us at some point in our lives.

5. Responsibility: Our Lincoln sheep started out as 4-H projects for us, so right from the beginning our parents made sure that we were the ones feeding them, cleaning the pens, and assuming full responsibility for all sheep-related tasks and disasters. At the age of 12, this was not an easy task. It's also not easy doing midnight and three a.m. checks on school nights, helping a mother give birth, and nursing a cold lamb back to life at -10° F. But we have done all those things, and through them we have been instilled with a sense of responsibility.

6. Patience is a virtue: Raising animals can be trying, and sheep are as stubborn as they come. We've both had our share of sheep-related temper tantrums, but as with most situations in life, frustration doesn't accomplish anything. We believe sheep can sense their shepherd's negative emotions and will purposely encourage frustration when they detect it. When you say "go left," they go right. When you repair the fence in one spot, they find the next convenient hole. Winning the battle is difficult, especially when you are contending with a 300 pound ram. We have learned that calm and patient work can mollify even the most exasperating of sheep, as well as most obstacles faced in raising animals.

7. Following the leader can get you into trouble: Sheep are flock animals. They strongly dislike being alone and will do anything - ANYTHING - to stay with their friends. There is no rhyme or reason to the decisions they make, but they always do the same thing. If one decides to go outside, they all go outside. If one decides to eat hay, they all get up and eat hay. Their game of "follow the leader" is quite humorous, actually, and blatantly evident in the one little path stretching from barn to pasture. While this is evolutionarily a defensive survival tactic for sheep, it often seems to get them into just as much trouble as it helps them. So, when one gets stuck in a fence, so do a few others. After spending enough time with the Lincolns, we realized it's the same with us. During middle school, high school and throughout life, it is so easy to just follow everyone else without paying mind to the possible outcomes. As with sheep, this often gets you into trouble. We've learned this the hard way. The road to individuality is oftentimes much harder and less traveled, but we have found in the end it is infinitely more rewarding. Be a leader and make your own path into the pasture.

8. Don't forget to count your blessings along the way: There is so much in life to be thankful for, yet so much is taken for granted. Blessing is the sheep that started it all for us: directly for Dave, and indirectly for Emmaline. Along the way we've had our share of trials - lost lambs, sick sheep, disappointment from placing last in a competitive show- but it has always been important to pay attention to the little things like an energetic lamb, the excitement of sheep when you walk into the barn (even if all they want from you is food) and placing higher at a show than you did last year. In this modern world of instant gratification, lightning fast technologies, and drive-through everything, it is easy to lose focus of what is most important. We have learned to pause and take the time to appreciate the small, seemingly insignificant things in daily life. We now realize the littlest things are usually the biggest blessings.

What started as one Blessing in the form of a sheep has since multiplied into many more that have shaped us into who we are today. Blessing has since passed away, but the gifts she passed onto us will last a lifetime. Even though we are still finishing college and trying to figure out our plans in the grand scheme of life, we both know, without a doubt, that Lincoln Longwool sheep will continue to be a part of our future.

Emmaline Long has been developing Orchard View Farm in Bergen, NY since the age of 12. She is currently a graduate student in the Animal Science department at Cornell University. She can be reached at eal93@cornell.edu.

David Popielinski has been raising his Lincolns at Rocky Knoll acres in Alden, NY since middle school. He can be reached at dlpopielinski@yahoo.com.



A Lincoln ewe ready to be shorn.

NORTHEAST SARE SPOTLIGHT

Welcome to the Northeast SARE Spotlight! SARE (Sustainable Agriculture Research and Education) offers grants to farmers, educators, universities and communities that are working to make agriculture more sustainable — economically, environmentally, and socially. Learn about whether a SARE grant would be a good fit for you.

Keeping Heifers Fit

Fay Benson Used Pedometers to Track Cow Health

by Rachel Whiteheart

Fay Benson's Facebook page "Girls of Summer" isn't what the innocent web surfer might think. Instead of featuring topless women, as the evocative name suggests, Benson's page promotes another type of unclothed female: the dairy heifer.

In 2011, Benson received a SARE 'On Farm Research/Partnership' Grant to thoroughly examine the effects of confinement vs. grazing on the health and productivity of dairy heifers. Benson noticed that some larger dairy farmers are reluctant to graze because they believe that grazing is "backwards," inconvenient, and overly time-consuming; in an attempt to change these farmers' perspectives, he decided to come up with some cold hard facts as to the benefits of grazing. And when searching for cold hard facts, what better place to start looking than a heifer's leg?

Benson conducted two simultaneous experiments under this SARE grant to determine both movement differences and health differ-

ences that arose between heifers raised in confinement and heifers raised on pasture. Prior to this point, no experiments had been conducted to quantify physical activity differences between heifers that are kept in confinement and those that are grazed. Seeing an opportunity for exploration, Benson decided to develop this area as one of his two projects. His search for the best way to quantify movement differences led him to an almost comically simple solution: pedometers, small devices typically used by people to track the number of steps they take.

Benson decided that the era of humans monopolizing this technology was over and set to work attaching pedometers to the legs of 10 heifers during their last month out in the grazing pasture before they relocated to a confinement dairy for the late fall and winter. The pedometers recorded every movement that heifers made over the two month period (first month on pasture; second month confined).

The pedometers revealed that the grazing heifers experienced a 60 percent drop in the number of steps taken when the animals transitioned from pasture into confinement.

For Benson's second project, he examined the health differences that arose between heifers raised in confinement and heifers raised on pasture. Both Benson and Hardie Farm (the dairy for which he raises heifers) use a computer program called DairyCOMP to chronicle the full health history of each heifer that passes through their farms. DairyCOMP keeps track of specific health markers including milk production levels, times bred, age at first calving, calving ease, and post-freshening health problems.

Benson doesn't have enough land or time to allow all of the heifers that are raised on his farm to graze; each year some heifers are held in a confinement barn on his land and some are grazed, a fact that was key in the development of this experiment. He utilized past DairyCOMP health data for heifers that had grazed on his farm for a period of five months in 2009, 2010, and 2011 (he sampled 60 from each year). He then found past data for a "herd-mate" (a heifer of similar age and stature) that had been raised during each of those years in confinement on his farm. Hardie Farm, which housed each of



Benson's heifers are rotationally grazed.

the test heifers after their stay on Benson's farm, provided Benson with their past and current DairyCOMP data following the health of each of the sampled heifers. This set of comprehensive health data for each of the sampled heifers allowed Benson to examine the full health histories of the grazed and confinement heifers during, and after, their stay on his farm. Benson then used health markers found in DairyCOMP to determine whether any significant health differences arose due to the environment in which the heifers were raised.

Benson found no noticeable health differences across any major health markers between the dairy heifers that he had raised in confinement and those that had been grazed. He attributes this result to the fact that both the grazed heifers raised on his

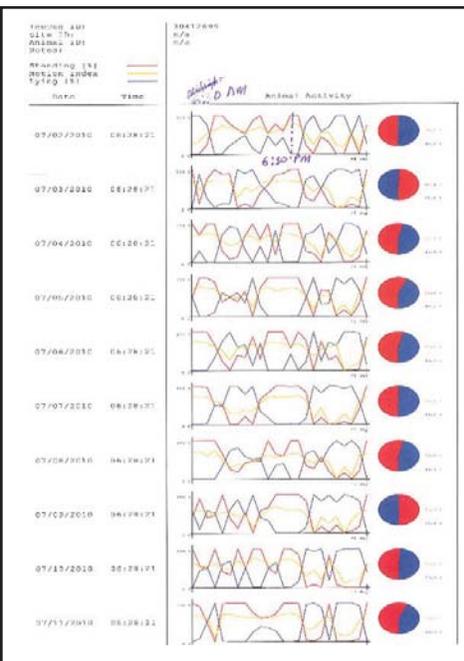
See Heifers page 16



Sustainable Agriculture Research & Education



One of Benson's heifers sports a pedometer that will catalog her movements over the course of a two month period. Photos by Fay Benson



The pedometers attached to the leg of each heifer record the heifers' movements, including the time they spend lying down, standing, and walking.

Upcoming SARE Grant Deadlines

Professional Development Preproposals - Due July 29
The Professional Development program funds outcome-based projects that train Cooperative Extension educators and other agricultural service providers in sustainable techniques and concepts. Projects must be directed toward increasing the skill and understanding of these service providers and consistent with SARE's larger goal of broad farmer adoption of sustainable practices. Awards range from \$60,000 to \$200,000.

Research and Education Preproposals - Due July 29
Northeast SARE seeks proposals for research, education and on-farm demonstration projects, and the emphasis is on projects that lead directly to improved farming practices and an enhanced quality of life for farmers and rural communities. Projects must involve farmers and other stakeholders in planning, implementing, and evaluating a potential project; we also fund projects where research, Cooperative Extension, and education are closely linked.
Learn more at <http://www.nesare.org/Grants/Get-a-Grant>.

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I Love New York Agriculture Art & Writing Contest

Each year, NYAITC and New York Farm Bureau sponsor an opportunity for Pre-K through middle school students across the state to discover where food comes from and why agriculture is important. The contest is divided by grade level, and each level has a specific topic to create a piece of art, poem, or narrative related to an aspect of agriculture. There were over 500 entries in this year's contest.

All awardees receive a Certificate of Recognition, and the first place winners are awarded \$25 to invest in their education or an agricultural product or experience.

Congratulations to the all the award winners! We wish we could feature all of them!

PHOTO FEATURE

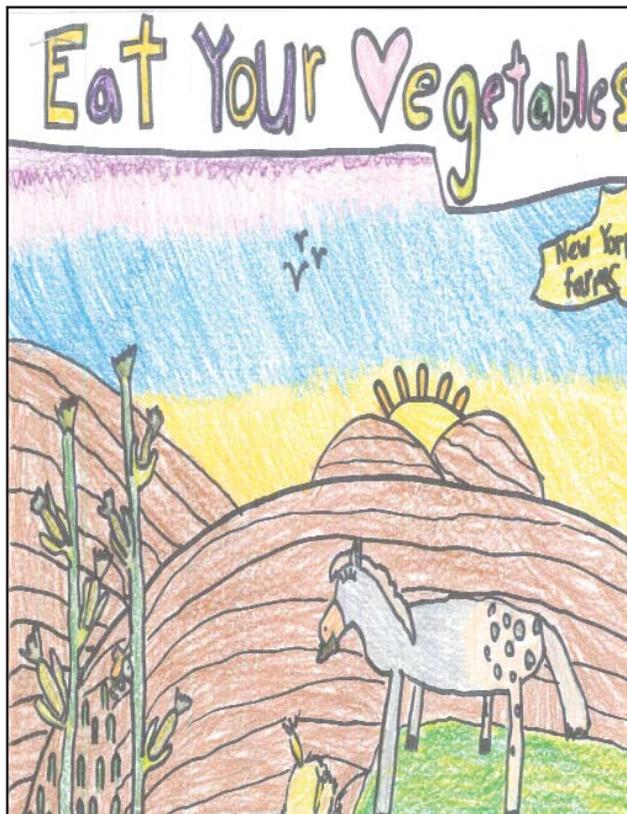
Horse Power

Our summer photo feature comes to us all the way from Welcome Table Farm in Walla Walla, WA. Welcome Table Farm offers a full diet of foods including vegetables, grains, eggs, perennial fruits and nuts, and pasture raised meats and cut flowers. The farmers of Welcome Table Farm strive to make healthy, local food accessible through direct customer sales, work trade options and donations to hunger relief organizations. The farm is working to minimize non-renewable and polluting energy use by effectively employing the skill and draft power of people and animals. Learn more at <http://welcometablefarm.com>.



Joel Sokoloff cultivating fava beans with horses Avi & Dandy. Photo by Chandler Briggs

Small Farm Quarterly Youth Pages



New York Agriculture Art and Slogan. Third grade students are asked to paint or color a drawing with a one sentence slogan about New York agriculture. The slogan can be general or specific to a particular agricultural process of commodity. Vegetables were the product of choice for Amelie Metzger, a 3rd grader at Cattaraugus-Little Valley Elementary School. Her slogan states, "Eat Your Vegetables."



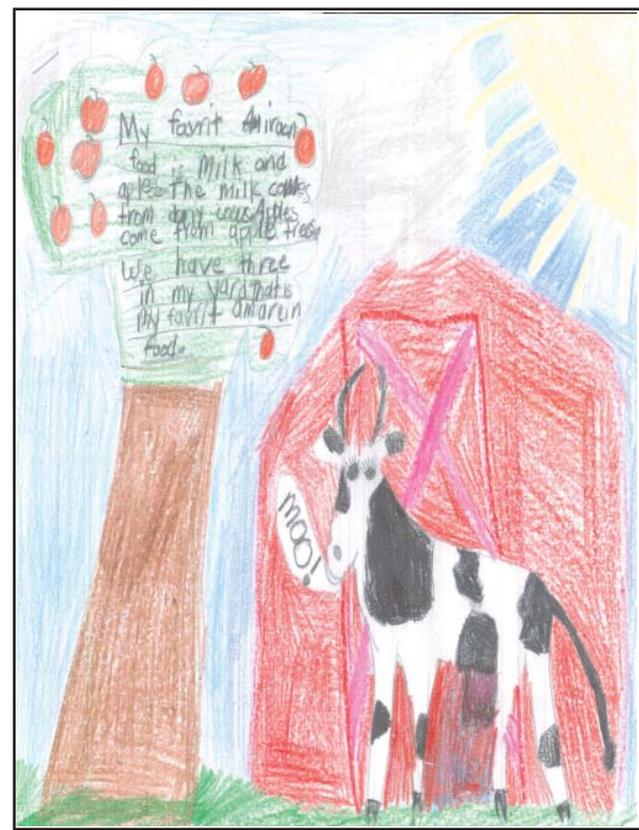
"Cows, Milk, and Me" by Hunter Osgood of Franklinville Elementary School.

New York Agriculture in the Classroom's (NYAITC) mission is to foster an awareness, understanding, and appreciation of how New York State and the United States produce food and fiber. NYAITC assists educators in teaching about our agricultural food systems, what we eat, and how we live by offering opportunities for students and communities to engage with agriculture.

If you are interested in learning more about NYAITC, or volunteering for a variety of events, please visit www.agclassroom.org/ny.



"Me and the Foods I Like" by Elena Gehrke of Cayuga Heights Elementary School.



"My Favorite New York Food and Where It Comes From" by Olivia Seiflein of Cattaraugus-Little Valley School.

New York Agriculture Narrative

Grace Sayward, a homeschooled 5th grade student, received 1st place in his category for her original narrative she wrote. The students were asked to write an informative narrative, real or imagined, that utilized research and information from a variety of sources to develop their topic or stories. Grace's winning story is entitled, "Advice From Gilly" and a section of her story reads:

"I stomped the ground. I didn't want the little farm girl coming any closer. Aspen was my son and I was going to protect him. Two more faces were at the door. I stomped again. Couldn't they leave me alone? The nosy children wanted to pet and play with my little darling. I wanted them gone.

I'm Gilly, a seven year old Icelandic ewe. Aspen is my seventh lamb and a second son. He was born this morning."



"My Favorite New York Farm Animal" by Evelyn Britt, a Pre-K student at Cattaraugus-Little Valley Central School.

New York Agriculture Poem

Students in 4th grade are asked to compose a poem. The poem can be general or specific, and it can focus on one of the over 200 agricultural commodities produced in New York, a specific farm or farmer, or an aspect of the food system. Morganne Chapman of Ellicottville Central School won the division with her poem. A section of her poem reads:

"...In the fall the farmers Harvest the crops the Farmers can the food Then they go sell them In the winter we Buy what they canned And eat them all Winter. That is why I am thankful for FARMERS."

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Anna Supp

"With four children to raise and being the sole person handling bookwork for two family businesses, I needed support with record-keeping and reporting. Now I rely on my Farm Credit East team to do that for me, preparing easy-to-scan profitability summaries that alert me to key issues I need to focus on. It was a great stress relief to have Anna's team take on record-keeping and make sure we meet deadlines."

Debbie Crothers

For more information, watch our video on record-keeping services at [youtube.com/FarmCreditEast](https://www.youtube.com/FarmCreditEast).

*Anna Supp
Farm Accounting Representative
Farm Credit East*

*Debbie Crothers
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GRAZING**The Calves Come Home***How to calm down, observe nature, and supercharge your results!*

by Eric Noel

When I started grazing cattle nine years ago, I had no clue about what I was doing, how things would turn out, and how much nature takes care of things on her own. As the years went by I found that relaxing, observing and letting things happen was a better strategy than forcing change and making things that I wanted to happen come to pass. The latter is exhausting and not as fulfilling, but it took time, experience and careful thought to come to this realization. For me, nature was my best teacher, showing me how powerful animal instinct is and how well different species already work together.

The Power of Instinct

I used to always make sure all the calves for my cow-calf operation were with their mothers every time I went to move the herd. I'd make sure that with every herd move all the calves were found and trained on my time frame. This worked all right until the end of my first season of grazing my own herd.

I moved the herd and noticed two calves not present. I proceeded to find them and attempted to get them with the herd. This didn't work so well this time. In my attempt to get behind them and push them in the direction of the herd, these two calves kept going in the opposite direction. I ended up pushing them into the neighbor's woods, up over two hills and through three barbed wire fences about a mile away. I gave up. They kept moving away from me. I couldn't make a big enough circle to get behind them. I actually lost them in the woods. I thought I would never see those calves again.



The view from down here! Cattle still in the paddock.

It was evening. I went home and ate. I was angry at the calves and myself, and I was stressed out about losing the potential income. I tried to put it out of my mind, and I went to bed.

The next morning I went out to do my first move of the day, never expecting to see those two calves, but there they were — standing next to their mothers with full bellies looking at me like nothing ever happened. At first this got me cranked up again because I was thinking “these calves are playing me, not doing what I want them to do when I want them to do it.” Then after some thought (I don't know why it didn't come sooner) it dawned on me: Let them move when they want to at the pace they want. They already know what to do. Their instinct is so strong that they overcame all the obstacles. I pushed them through in the dark no less. I had forced my own time-wasting, stressful situation. I let my ego, my belief that things were supposed to be ‘just so’ get in the way. Life, and farming in particular, does NOT require struggle to be successful or to feel like you are doing your part. What I have found is that nature already has all the answers. The path of least resistance (which is also human nature) actually allows us to accomplish more in less time for an

increased quality of life, higher net profits and more time off.

Cow Controlled Weaning

Another natural concept you can use is to let the cow do the weaning. This totally eliminates stress for the calf, the cow and you. I



A Bobolink nest after 150 head grazed the paddock.

Photos by Eric Noel

See Calves page 14

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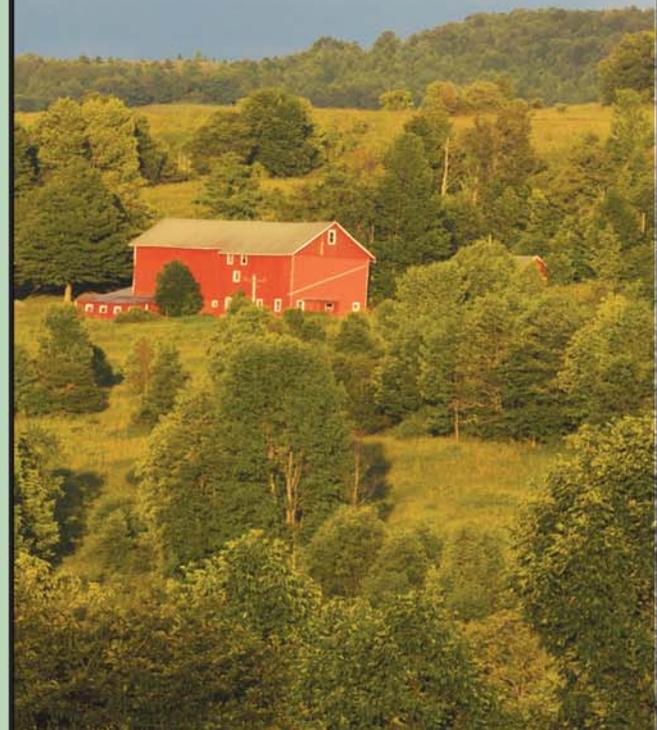
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FARM MEMOIR**The Disappearing Hay**

by Stuart Cheney

One year about 1944 or '45 it was time to cut the second cutting of hay, more commonly called rowen back then. The farmer who lived across the road from where I live now, whose name was Dan, mowed down seven or eight acres of beautiful rowen on a field between where I live now and where I lived then, which is about one-third of a mile. Dan and my dad had been talking and he told Dad to mow the whole east side, and Dan would take it to his barn where they had an ensilage cutter set up. The plan was to pick up all the hay when it was dry, bring it all to the ensilage blower, fork it into the blower, shoot it up the pipe about thirty feet into the window at the top of the barn, and it would land on a scaffold at the end of the barn under the blower pipe. Dad was to get his share for helping.

The idear was that the barn was full of loose hay and by chopping it the hay wouldn't take up much room and would all fit on the scaffold — maybe. They had an old big blue one-lunger engine mounted on an old waygon frame to run the blower, and Dan had bought a wooden buck rake that fit right on the front of the John Deere tractor. The buck rake has wooden teeth about eight inches long and also about eight inches wide. You lower it down and let it slide along the ground right underneath the windrow of hay. When it gets full you pick it up and head for the barn. Sounds good, doesn't it?

Dan's son Neil drove the tractor. He was six years older than me and when the day came, we all got out there and one way or another got all the hay raked up. It was a perfect day, and they had the old putt-putt running and that big long belt was just a-flopping in the breeze. Two men were stationed with blower forks as Neil brought the hay in with the buck rake. He didn't waste time, and as soon as he dumped off the hay and got turned around he'd jam it into high gear, and

down the road he went. Well they soon found out that over near the woods where the hay was the heaviest, it was rough. A few stones stuck up, so Neil stayed outta there with the tractor and they sent down the truck and a couple of men to get that hay. Things were going pretty smooth so far, and they loaded the truck, brought it up, and were dropping it off onto the blower table the best they could.

Of course before they started chipping the hay and blowing it into the barn, Dan told my dad to bring up his Doodle-Bug (hand-made tractor) and large hay trailer that went behind and back it into the barn right up to the scaffold at the end of the barn. That way when they got a big pile of chopped hay they could take their forks and push my father's share right onto the trailer. Sounds good.

Well the afternoon wore on and Neil was making trip after trip, coming up the hill with a rake so full of hay it slowed things down a bit, but he sure made up for it on the way back. The only problem was when he had the rake loaded he couldn't see a thing straight ahead and if a car was coming and they didn't pull over and get out of his way — I don't even want to think about that. But if you think that bothered Neil, well then you didn't know Neil! Not much traffic back in those days and nobody's car ever got impaled.

Came about six o'clock and all the hay was off the fields with a lot less work than usual and it was milking time again. We shut down the Old Blue putt-putt and everybody cleaned

**Making hay with the tractor.**

themselves off and headed to the milk house where all sorts of good cold things awaited. There was some nice chocolate milk for me, which I loved.

Oh boy! Now we're headed into the barn floor to see the big pile of chopped hay-what a fun idear this has been.

"Oh my God! Where's the hay!"

Well I guess they had the Old Blue putt-putt stepped up a little too much and instead of making the hay into a pile it blew it all over hell. Now there was no more than eight inches to ten inches of hay on the scaffold and only three or four inches left on the haytrailer. Hay was all over the Doodle-Bug, even stuck up against rafters. It seemed the smallest cobwebs held a handful of dry hay. There is no way you can believe that all that hay should of made a small mountain just wasn't there. Neil hitched onto Dad's Doodle-Bug and towed it out of the barn before they dare start it up and start a fire. As Dad and I went on down the hill to our own barn what little hay was on the tractor blew off. He didn't even bother to back it into the barn.

Moral of the story is don't count your chicks before they hatch.

Stuart Cheney grew up on a 145 acre diversified farm near Brattleboro, VT. He resides on the farm in a small five room house built by his grandfather in 1940.



Hay-making before the putt-putt. Stuart Cheney riding the horse. 1937.

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SEED STORIES**The Case for Regional Seed**

by Petra Page-Mann

There is so much in a seed.

Each seed tells the story of its entire life history, millions of years in the making. A few seeds, in a single generation, may travel the globe. Most will stay within their watershed and most likely, their microclimate. In this way, seeds become profoundly adapted to place. The selection pressures of the environment (drought, low-nutrient stress) are key in the evolution of every seed.

Agricultural seed tells an additional story, one of human relationship. Historically they remained fairly static, slowly adapting to place and becoming spread wide first on our backs, then by camel, then by boat. Fast forward to 2013: most seed companies offer seed from all over the world.

If 'regional seed' is seed becoming adapted to a bioregion, then all seed before World War I was regional. Farmers in both industrialized and developing nations saved their own seed. Integral to livelihood, maintaining good seedstock was equally important as keeping a good bull for livestock. Over time, each variety was selected to meet the environmental conditions and farmer's needs on the farm.

We share a blind faith that seed is produced by the companies selling them; this is most often not the case. Although a 'widely adapted' seed may grow in your soil, it may not flourish as one that has been 'regionally adapted.' Companies with international markets excel in the former, but not the latter.

Most seed is grown where the climate favors commercial dry seed production, such as the Pacific Northwest and Israel. Much of this seed is adapted to modern agricultural techniques (mechanization, increased external inputs), allowing for wide adaptation and the high yields resulting from high inputs. Further, breeding for resistance to pests and disease is rarely prioritized, relying



The author with her selections of 'Joan' rutabega from the root cellar, ready to make seed adapted to the Finger Lakes in 2013.

Calves from page 12

know what you're thinking, "A cow doesn't know how to do that." Well, let me tell you from experience that they do. In preparation for the new calf she will kick the yearling until it gets the hint and stops trying. Yes, you will have the occasional heifer or even a cow that doesn't get it right. What do you do? Cull the animal. It's all about getting the herd to take care of itself as much as possible.

Birds and Grazing Cattle

Another example of nature working within a farming system is grassland birds thriving in a planned grazing model. I have seen cattle graze around Bobolink nests perched up in the forage canopy of a paddock. Think about this: 150 head of 1000 pound cattle in a high density scenario grazing around a nest in the forage, the size of a coffee cup with eggs in it and leaving it unharmed! How does this happen? The only answer I can come up with is "It's nature. It's what is supposed to happen."

Last year I also started seeing birds on the back of my cattle. A couple of years before I built and installed about 30 tree swallow bird houses because they eat flying insects. I wanted to reduce the fly

heavily on chemical applications, resulting in varieties adapted to these sprays.

Is Regional Seed a Thing of the Past?

Following the rebirth of regional organic vegetable production, awareness of regional seed production is gaining momentum. Regional seed is the natural root of local food. The Pacific Northwest has a thriving network of small-scale seed growers and here in the Northeast we have our own burgeoning community of committed seed growers. Perhaps evidence of a shift in public awareness, many of these growers are experiencing significant sales growth each season.

The Case for Regional Seed

Each region has specific resources, growing challenges and market opportunities; regional seed is uniquely able to adapt all of these needs and conditions.

Not all seeds are readily produced on a commercial scale in the Northeast (on account of our humid growing season), but many could be with proper techniques. Few seed companies sell seed grown in the Northeast and even then it is only a small percent of their offering. This means you may be buying good seed but not seed selected to excel in your specific climate and soils.

Fruition Seeds offers a different perspective, providing varieties grown organically in and for the Northeast. Raised in the Northeast, co-founders Petra Page-Mann and Matthew Goldfarb have worked in agriculture for over thirty collective years. With knowledge of local production, local markets and operating on a relatively small scale, they offer seed grown on their farm in the Finger Lakes of Upstate New York as well as seed from other excellent organic growers throughout the Northeast.

"Without a company to serve the market, how do we have access?" asks Dr. Michael Mazourek with Plant Breeding and Genetics at Cornell University. "Seed customized to our growing conditions gives us freedom from 'making do' with what serves major national markets. A region's ability to have vibrant, productive seed is critical."

"Each farm is unique, especially each organic farm," observes Michael Glos, also with Cornell Plant Breeding and Genetics. Conventional seed, produced with quick-release fertilizer and pesticide, may perform with little variation between farms. Organic systems, however, have a spectrum of variables for seed to respond to, increasing the significance of regional seed.

"Regional seed is important," continues Michael who, ten years ago, saved kale seed on his farm. Having only grown that seed since, "nothing can replace seed selected on the conditions of your specific farm."

Will Bonsall agrees: "We like to hire everything out: washing the car, fixing the deck. But some things are too compelling, too important to leave to the professionals, like tucking in our children at night. Everything related to food, and especially the seed, must be seen in this light."

Bonsall has been saving seed in Maine for decades, witnessing

population in a natural way. Now when I go down my cattle lane, I get dive bombed and zoomed by all these birds. It's very cool to see. Last year was the first year I had NO pink eye cases with the most cattle I've ever grazed (180 head).

Relax and Let Nature Do Her Job

Plants and animals did just fine before we got here and will continue when we are gone. We have the advantage of our intellect, our thinking mind. We can choose to let go of our ego, our competitive self. This allows us to align ourselves with nature, give her the support she can use which allows both to prosper. Feed the cycle and the cycle will provide abundant returns in all forms. It all starts with our thinking. Do less, make more and laugh all the way to the bank, while at the same time making a deposit in nature's bank account.

Following what nature already knows how to do and using our management skills to align with her is where the magic happens. You will know when you get there because you are in the zone and your farm and cattle are all at high performance and in step with nature. You will have more time for the things in life that are important to you, your family and your farm. Stress levels are low and

the impact of regional and on-farm selection in many crops. His work with grain is an excellent example. "Wheat bred for the prairie soils of the grain belt, rather than the forest soils of the Northeast, are notably different. Additional breeding for yield has neglected the flavor, nutrition and bread-making qualities of wheat." Adapting grains to his soils has taught him much and he continues to learn more each season.

How is Regional Seed Developed?

Bonsall sources multitudes of wheat to 'trial' from germplasm banks around the world, Seed Savers Exchange, neighbors and seed companies. Variety trialing is central to the growth and vitality of regional seed. Grown side by side, varietal characteristics are evaluated from seed currently grown in a region as well as seed from around the world. In many ways, trialing is as important as seed production itself because it illuminates the spectrum of genetic diversity within a crop type, offering us the range of what is possible. Once a consistent, quality variety has been identified, it moves into production to be 'customized' to our growing conditions.

Like growing seed, trialing is done by seed companies and universities. But perhaps most important, the active participation of farmers is key to the long-term vision and success of these efforts.

Several seed companies based in the Northeast trial extensively to find varieties with potential for growers in the Northeast. Also, Cornell Plant Breeding and Genetics is making exciting progress identifying varieties with resistance to diseases with national and international significance, such as downy mildew and late blight. This season they are growing 56 varieties of cucumber in their downy mildew trials, with over a thousand plants from the breeding program going to the field for selection. We are fortunate here in the Northeast (especially the Finger Lakes!) because diseases with international relevance studied here offer tremendous regional insight, as well.

Cornell also engages growers in our bioregion who participate in variety trial and breeding. "Come to a field day," encourages Michael Mazourek, "meet us and get more involved!" The Cornell Organic Vegetable Research Farm in Freeville, NY will hold a public field day in late summer (date to be determined) and can always be found at NOFA conferences and many NOFA-sponsored events.

Regional seed, like local food, is too important to our lives to be fringe for long. The extraordinary elasticity of genetics offers ample opportunity to customize our seed to meet the specific conditions and needs of individual and regional farms. The seed we have now is good but truly excellent, well-adapted and regional seed is our privilege to cultivate. With the collaboration of seed companies, universities and individuals alike, building a regional seed supply in the Northeast is gaining momentum with each season. 'Trial' some regionally adapted seed in your garden this season and see how 'local' can go deeper!

Petra Page-Mann lives and farms in Naples, NY and founded Fruition Seeds in the Fall of 2012. She may be reached at fruitionseed@gmail.com.

farming becomes profitable and fun again.

Eric Noel is an organic farmer, grazing and farm planning consultant, and coach. He lives and farms in the Champlain Islands of Vermont with his wife and two children. He can be reached at 802-752-8731 or ericnoel@hotmail.com.



You're out. I'm in. Momma knows what to do.

LIVESTOCK & POULTRY**Where the Buffalo Roam**

by Amy Weakley

Our little family farm is tucked away in a remote corner of Tug Hill in the Adirondack region of Upstate New York. As a child I lived on a small family farm, where I learned to have a strong work ethic and an even stronger understanding of our family values. As I grew up, went to college, married and started a family of my own, I realized I wanted my children to have those same experiences and values. We started Barefoot Buffalo Farm in 2010 with five buffalo. Raising bison, the more accurate name for our animals, is no small chore and should not be entered into lightly. That being said, we couldn't be happier. Bison are absolutely amazing creatures, each with their own personality. They are majestic wild animals.

More than 60 million bison once roamed all across the North American Continent. Bison have thrived on wild and drought resistant grasses, native shrubs, flowers and other plants and were a huge part of the ecological system. Bison are considered ruminants, as they do chew a cud. To Native Americans, bison were the economic and spiritual sustenance, supplying them with food, clothing, shelter and a source of utensils and tools. Currently, there are approximately 500,000



George is Barefoot Buffalo Farm's current productive bull.

bison in the U.S. Yellowstone National Park has a herd of about 3,500 wild bison, making it the largest wild herd in the world.

Bison are not tame animals and must be handled with care and caution, each with their own personality. While they may seem quiet or docile, they should not be trusted. Respect them and give them their needed space. Proper handling equipment, fencing and patience are must haves. Our fence posts are telephone poles or 6X6's — 12 feet long, buried 4 feet down and a woven wire fence 8 feet high. The bison pasture ratio is the same as that for cows.

We will be moving to a rotational grazing system this year in an effort to adopt more sustainable practices. We currently have about 27 bison ranging in age from newborns to fully mature animals. Our plans are to continue to grow our farm as we can. Currently we sell our bison meat to family, friends and our local community. With just word-of-mouth advertising, we can't meet the local demand. We plan to join some of the local Farmers Markets as our growth allows.

Our customers come from diverse backgrounds. They range from people curious about the taste of an exotic meat, outdoorsmen, Buy Local folks, and those interested in a healthier red meat.

After talking to a variety of people including our potential customers, we have opted to transport our bison alive more than three hours away to a plant capable of processing them with a USDA inspection process. This is not required but is viewed as a valuable quality control for our customers. We have also had people interested in purchasing live animals on the hoof for private processing.

We love all of our animals and take comfort in knowing they are raised in a healthy manner where they can run and play in a natural environment. We have also chosen not to use antibiotics or hormones with our bison. They are hearty animals with a strong resistance to many diseases and we feel that nature should not be tampered with.



Bison mothers are nurturing and protective of their young.

Photos by Amy Weakley

A common belief is that ranchers breed bison with cattle. This is not true. "The National Bison Association is dedicated to maintaining the integrity species. In fact, our Code of Ethics specifically prohibits members from deliberately crossbreeding bison with another species."

We chose bison because of its wonderful meat. It is delicious and nutritious.

According to the Nation Bison Association, bison are classified as an exotic, or "non-amenable species," under the Federal Meat Inspection Act. As such, they fall under some unique regulatory provisions. All bison marketed into the commercial marketplace must be processed in an FDA-approved facility. These facilities are required to comply with all FDA regulations, as well as with the FSIS regulations regarding sanitation. Bison producers/processors may also request "voluntary inspection" services from the U.S. Department of Agriculture's Food Safety and Inspections

Service (FSIS) or from an accredited state inspection program which offers inspection "at least equal" to USDA.

There are a numbers of farms in the central New York area that sell live animals for those interested in raising bison. The Eastern Bison Association also hosts two conferences/shows and sales annually.

To learn more about raising bison, visit The National Bison Association website at www.bisoncentral.com.

Amy Weakley owns Barefoot Buffalo Farm with her family in Taberg, NY. She can be reached at 315-942-6171, dave_amy_weakley@yahoo.com and www.facebook.com/barefootbuffalofarm.

Fun Facts About Bison

- Bison are faster and more agile than a horse, running at 40 mph and jumping 6 feet high.
- Bison are matriarchal, meaning a female will be the head of the herd.
- One Bison bull can usually service 10-18 cows.
- Bison live 20-25 years in the wild and up to 30 in quality captive conditions.



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LIVESTOCK & POULTRY

Sheep Barn Interior Design: Wooden Panels

If you can handle a drill, a saw, and a few other simple tools, this article describes how to assemble panels for pens, lambing jugs, and a creep feeder

by Ulf Kintzel

While times change with incredible speed when it comes to the development of technology, some things seem to stand the test of time. Sheep feeders and panels were made from wood for hundreds and thousands of years. Nowadays, there is a variety of metal panels, pens, and feeders on the market, yet wooden panels seem to be the far more economical option and are perhaps even more widespread. That is if you can handle a drill, a saw, and a few other simple tools. In this article I will describe my preferences and experiences when making panels for pens, lambing jugs, and creep feeder. Feel free to copy or modify my ideas as you see fit.

The wood of choice — recommended by my friend Mahlon, a saw miller — is hemlock. Hemlock is light yet it stands pressure very well without breaking. In fact, it bends under pressure rather than breaking. The drier it is, the better it bends. The downside to hemlock is the relative ease with which it splits when you drill screws into it. So it may be necessary to pre-drill holes when putting in screws close to the edge. In the past I have also tried white pine (which works) and red oak (which is too heavy).

Heifers from Pgae 9

farm and those heifers raised in confinement on Benson's farm spent "9 months [after leaving Benson's farm] in confinement on the Hardie farm, which homogenized the health differences between them." Nevertheless, Benson says that the feed costs savings he retains through grazing heifers are reason enough for him to continue (he saved around \$650 over the course of a 150 day grazing period). Benson believes that many other farmers in the near future will be drawn towards grazing for the same reason since "the cost of grazing hasn't changed but the cost of feed has." However, Benson plans to continue his research of the potential health benefits of grazing to give dairies more reasons, besides just economic incentives, to choose grazing.

This grant was the most recent grant in a series of three that Fay has been involved with, all relating to dairy cows (he jokes that his grants are his very own Lord of the Rings trilogy, but dairy cow-style). His first grant examined health differences between grazed and confined dairy heifers during their freshening period (the period right after a heifer gives birth). This project determined that grazed heifers had both improved calving ease and a need for fewer antibiotic treatments than heifers raised in confinement. The second project focused on the use of whole farm analysis for New York small dairy farms to improve nutrient cycling, carbon status and energy use, among other things. Benson keeps returning to SARE as a source of funding because he believes that "a lot of information that farmers want to know is about applications, which purely scientific research doesn't always pursue, [but SARE does]."

Benson has already begun to see the impact that his research has had on the practices of Northeast dairies. Hardie Farm, the dairy farm that houses Benson's heifers after their stint with grazing, had not previously grazed heifers; now they send their cows to custom graze at Benson's home farm every summer. Benson hopes that, with data he collects from future research, he can continue convincing farms of all sizes that grazing is the way to go.

This article discusses SARE Project Number ONE10-113. Download the full final report at <http://my-sare.sare.org/mySARE/ProjectReport.aspx?do=viewProj&pn=ONE10-113> (www.sare.org | Project Reports | Search Database | project number "ONE10-113").

Rachel Whiteheart was a summer intern at the Cornell Small Farms Program during Summer 2012 and is now a junior Environmental Engineering major at Cornell University. She may be reached at rmw95@cornell.edu.

Any boards I use are rough cut. Other than avoiding the occasional splinter, there is no additional benefit to a finished board — rough-cut will do and is cheaper. The boards I use are one inch thick and three inches wide. Some may prefer a wider board, perhaps four or five inches wide. However, having a board thicker than one inch does not seem to suit any additional purpose. As far as the length is concerned, I go pretty much with what is available at the time in order to keep the cost low. I take anything between eight and about ten feet long. Shorter than eight feet would be too short. Boards longer than 12 feet will not be handy for one person when they are used for a panel.

In order to make my panels, I need the following tools: a circular saw, a drill, one and 5/8 inch long deck screws, a measuring tape, a woodworker's pencil, a woodworker's tri-



A creep feeder panel with spacing that allows lambs only to access the fancy hay.

angle, a couple of saw horses, and a make-shift work bench made from hemlock boards laid over a frame.

Length and height of the panels as well as spacing in between boards depends on the future purpose of the panels. "Normal" panels, used for making holding pens for groups of sheep, are 40 inches high and eight to ten feet long. They have five horizontal boards, the lower boards are spaced about five inches apart, the upper ones about six inches apart. My sheep are of medium size and calm disposition and the height is indeed sufficient. If your sheep are of large frame or are flighty, you may need to adjust the height accordingly. These panels have three vertical boards or "legs," one on each end and one in the middle. Two diagonal boards create stability and keep the panel from flapping around when handled. If you wish to make these panels lamb proof, just add a sixth board and adjust the spacing accordingly. Such panels will be suitable for the chute as well.

I use pen dividers during lambing season so that I can separate a large pen to accommodate different groups, i.e.



A "regular" panel for the purpose of making pens.

Photos by Ulf Kintzel



A divider panel, low enough to step over without climbing and also "lamb proof."

groups of sheep with lambs of different ages. These are just 36 inches high and the spacing in between the lower boards is tighter — three to four inches between lower boards and five to six inches between upper boards. The tighter spacing is because of the lambs; lambs escaping through the panel into another group is absolutely undesirable. The lower height is for me to be able to step over without the need to climb. This may sound silly but if during the course of a two to three week lambing season, you climb dozens of times per day over panels in order to get from one group to another and in and out of lambing jugs (which are of the same lower height), you will be exhausted just because of that. Stepping over is far easier. Since ewes are even less flighty during lambing and with young lambs, this height, which may be insufficient at other times, is no problem at all.

My panels for my lambing jugs or pens are of the same height and spacing as the dividers because of the same reason. The length of these panels is five feet. Due to the shorter length only one diagonal board is necessary to provide stability. These panels make a five by five jug/pen, which is sufficiently large for a ewe to bond with her lambs immediately after lambing. I set up the jugs along the wall and side by side. That reduces the need for panels per jug to two, with the need for three panels per jug on either end of this row of lambing pens.

Lastly, I also built the panels for my creep feeder myself. The spacing between vertical boards is seven inches, the height 40 inches. This allows the lambs to access the best hay I have, which is provided in a hay feeder and is inaccessible to the ewes.

Ulf Kintzel is a native of Germany and has lived in the US since 1995. He farms Ulf owns and operates White Clover Sheep Farm, located in the Finger Lakes area in upstate New York. He breeds and raises grass-fed White Dorper Sheep without any grain feeding and offers breeding stock suitable for grazing. His website address is www.whitecloversheepfarm.com. He can be reached by e-mail at ulf@whitecloversheepfarm.com or by phone at 585-554-3313.



Lambing jugs, five by five feet big.

SMALL FARM SPOTLIGHT**Making it Work: Couple Transforms Fallow Plot into Viable Farm**

by Jaclyn Rose Bruntfield

In 1979, Deb Barber and Tom Decker bought a small plot of land that was stripped of its topsoil when the Taconic Parkway was built. The land might not have been put to productive use had it not been for the couple, who brought extensive skills and knowledge to their farming enterprise.

In 1990, the Barber and Decker, her husband, began farming their land in the bucolic Hudson River Valley while also working full-time and raising two young children. They initially sold flowers at the Great Barrington Farmers Market, which opened that year. Since then, the farm has expanded to include a variety of fruits, vegetables, and decorative plants.

"We both were really drawn to farming," she says. "I really think it's a genetic disposition to farm. Either you're into it or you're not. A lot of people would kill themselves first."

Deb earned a degree in floriculture at SUNY Cobleskill and worked for 12 years at a garden center in Great Barrington, MA. Tom is self-taught in agriculture from planting fruit trees and tending greenhouses as a groundskeeper at Bard College at Simon's Rock, also in Great Barrington. Deb says these experiences gave them a foundation upon which to build their own farm.

"Sometimes I look back at our records and say, 'How did we survive? How did we feed our children?'" she says. "But I'm very grateful that we did it. I'm glad that we had worked on something for many years and, when the time came, we were able to segue into that."

The couple has been working Double Decker Farm full-time since 1997. They currently own nearly six acres, with two and a half acres farmed on rotation each season.

Investing in the Farm

"We have needed everything that has come our way when it has come our way to make this work," Deb says.

When Tom's parents, who lived next door, passed away, Deb says they used his inheritance to invest in the farm, buying a mulch layer, transplanter, and cargo van.

"Without that, there were so many ways this tiny little farm could have failed," Deb says.

Deb also credits the Great Barrington Farmers Market, which is 20 miles from the farm, with supporting their business. "People in Great Barrington always have such great appreciation for what we've done," she says. "We're their family and they're our family."

Double Deckers

In order to restore the farm's soil and improve its structure, Deb explains that manure, hay mulch, rock phosphate, and green sand are added each growing season.

"It's a tremendous amount of work to put it in, but then it's good



A variety of decorative plants start out in the greenhouse at Double Decker Farm.

for the season," Deb explains. "After you've gotten a whole season of beautiful work out of it, it goes into the soil and feeds the worms and becomes organic matter. That's what we call a 'double decker.'"

"I like it when Tom takes a handful of soil and there's worms all in there," she says. "Last year we had all of our tomatoes, herbs, and flowers hay mulched. It was so beautiful."

Working with the Seasons

Aside from a vacation each fall, Deb says the farm keeps her and Tom busy year round.

"In July and August, we're up really early harvesting what we can and cultivating," says Deb. "We'll bring music and chairs and water into the shed when it's killer hot and sit with piles of onions and cut their roots off. It all has to be done, so we just try to work it around the weather and the season."

"We work all winter," she explains. "This year we've been cutting brush, cutting trees, cleaning up stuff that we would normally have to do in the spring." The couple also uses time in the winter to order seeds, do paperwork, and repair their tractors.

Outside Deb's home, which sits atop a hill overlooking the farm, is a huge, intricate clock that she created using clay and tiles. She says she tries to make time for her art in the winter, though the farm takes priority.

"We're going to work if we can," she muses.



Deb has been farming Double Decker Farm full-time since 1990.
Photos by Jaclyn Rose Bruntfield

A Boutique Farm

Double Decker Farm is so small that Deb says it doesn't qualify for agricultural tax write-offs. "People will call us a boutique farm, but that's the only way we can afford to be a farm. If you piled up all the high-quality food we've produced in 20 years, you'd be amazed where it came from."

She dismisses criticism that the "boutique farm" caters to the wealthy elite.

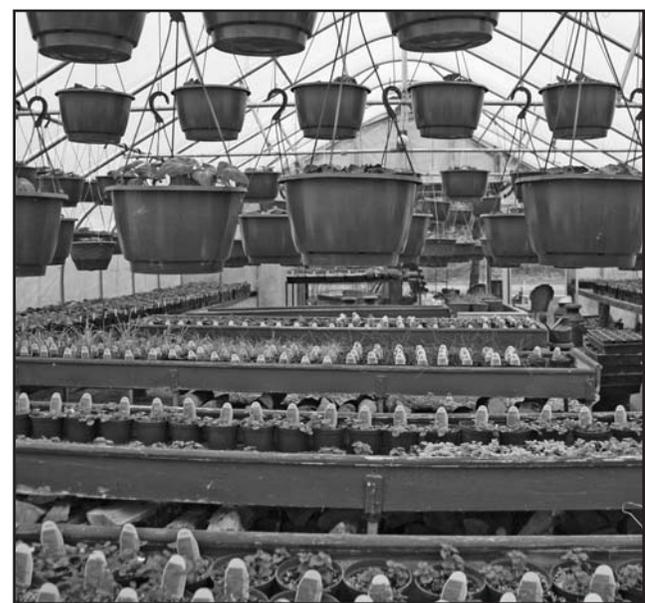
"Good food is expensive," explains Deb. "If your food is really cheap, you're getting crap. I don't think there's anything wrong with selling our product for the price we do. Not making a profit, for us, would be unsustainable."

Deb believes that more people should try growing their own vegetables to experience how difficult it is, and so they know "what good food tastes like."

"There's nothing like someone trying to grow a tomato plant to understand why we charge \$3.50 a pint," she says. "[In 2011] we had 13 inches of rain over Labor Day and seven inches of rain in July. There are blights. So many things can happen to a tomato."

Eating Healthy Together

"People have to be taught how to shop conscientiously," Deb



Potted plants and herbs get their start in a greenhouse in early spring.

explains. "Many people don't know how to cook anymore. They're eating burgers, Chinese food, and quesadillas, so they don't know how to buy good stuff."

Deb says that shopping at markets and preparing fresh food serves as an opportunity for families to create memories.

"If you took \$10 and made a game of it with your family, everybody can go and try to put together a salad, a soup, or a dessert," she says. "Then you go home, talk about the stuff you bought, make it into a meal, and then you eat it all together. How far would that go for people to be eating healthy, educating, and having fun together?"

Deb says that making a raspberry tart from scratch can be less expensive for a family than a night at the movies. "Some people don't have a clue that they could go and buy fresh raspberries, make a pastry crust, and bake it with some honey or sugar. It was two pints of raspberries an hour ago, but now you're sitting down together eating one of the best things you've ever eaten. It creates a memory and it was your entertainment for the day."

The Future of Double Decker Farm

Deb says the local food movement has provided an uptick in business for Double Decker Farm.

"For us it's good," she says. "Things come and go in cycles, but as far as the buying local movement goes, I think it's only going to get better."

The couple's two oldest children work at the Hawthorne Valley Farm Store in Harlemlive. Their youngest daughter helps out on the farm, mixing different colored tomatoes into containers and creating flower bouquets. But Deb says that her children have no interest in staying on the farm.

"They like good food and the idea of farming, but who wants to go pick 30 pints of cherry tomatoes when it's 90 degrees?" she says.

Deb says that she and her husband have created a sustainable business model through expanding their business slowly over time. She believes that market organizers and potential new farmers could benefit by adopting similar strategies.

"Sustainability is something where the inputs and costs - monetary, health, environmental - are less than what you're getting," she says. "We've always worked under the premise, 'Don't get any bigger 'til you can't get any better.' And as little as this place is, we have so much stuff after 22 years that we can still do. The longer we work at it, the better our systems get."

Jaclyn Rose Bruntfield is a writer living in New York's Hudson River Valley. After completing her thesis, "Stewards of the Land: Representations of Agricultural Authenticity in Columbia County, NY," she received a Master's degree in English from SUNY Albany in December 2012. Double Decker Farm was one of the family farms featured in Ms. Bruntfield's thesis. She can be reached at jaclynbruntfield@hotmail.com.

STEWARDSHIP & NATURE**Elderberry and Beyond: New Options for River Lands in the Northeast***Riparian buffer plantings can reap rewards for nature and business*

by Liz Brownlee and Connor Stedman

Stan Ward springs into his greenhouse full of excitement, eager to show off elderberry cuttings. He's growing elderberry, Echinacea, and other perennial medicinals on his upland farm in central Vermont, but these elderberries are bound for lower ground. This year, he's planting them into one of three riparian buffer plantings along the Mad River, continuing a project that began in 2012. The elderberry will absorb floodwaters, keep farm field runoff out of the river, and reduce erosion. And they will generate income as an agricultural enterprise.

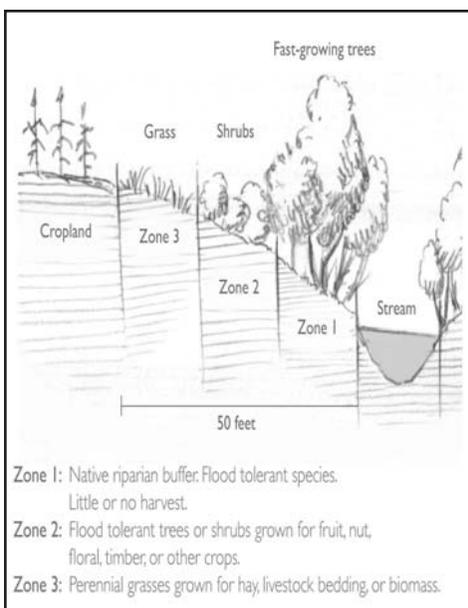
The river's edge can be tense territory, where conservation and agriculture seem permanently in conflict. Farmers, working with razor-thin profit margins, want the rich soils in production. Conservationists want floodplains to grow native ecosystems that absorb floodwaters, remediate pollution, and provide wildlife habitat. At the same time, the river's edge can also be a place of great collaboration. Stan's plantings are innovative, in part because he's establishing them in partnership with his local watershed group and the local conservation district.

Planting elderberry in the buffer creates what Stan calls a "win-win-win" for watershed health, wildlife conservation, and the local farm economy. Stan isn't the only one interested. A small but growing number of farmers, conservationists, and land managers in Vermont are beginning to add productive buffers to their toolboxes. Farmers are planting on commercial and homestead scales across the state. By directly integrating agriculture and conservation, these working buffers could help farms and watersheds alike adapt to increased flooding and the new climate "normal" of the 21st century.

Rivers, Flooding, and Tropical Storm Irene

River channels support an extraordinary abundance of life. Water continually shifts and meanders, carving banks and revealing new land. On any summer evening turtles bask on gravel bars while swallows and kingfishers nest in steep exposed banks. These habitat features are found nowhere else in the wider landscape, and are constantly changing as the river moves. When rivers flood from snowmelt or storms, they deposit rich silt and sand in their floodplains, supporting riparian forests and riverbank meadows. These in turn provide food and shelter for countless wildlife species.

For farmers, rivers are a blessing and curse. They provide extremely fertile and easily plowed agricultural soils, but the threat of damaging floods is ever-present and increas-



ing with climate change. In late August 2011, Tropical Storm Irene dumped 4-8 inches of rain throughout Vermont in less than 24 hours. Flooding eroded entire fields; carried away barns, livestock, and greenhouses; and buried crops in sand and gravel. Almost 15,000 acres of Vermont farmland sustained damage; farmers in the state lost at least \$20 million in one day.

Intact riparian landscapes can mitigate the impacts of flooding. Flooding along the Otter Creek from Irene impacted 92 farmers in the vicinity of Rutland, VT. Thirty miles downstream, in Middlebury, only 41 farmers reported damage. While crop damage was similar in both places, farmland impacts were not: the flood damaged only 60 acres of land in the Middlebury area, compared to over 4,000 acres surrounding Rutland. The difference lies, in part, in a large system of intact swamps, wetlands, and floodplain buffers along the Otter Creek between Rutland and Middlebury. These ecosystems slowed and absorbed the floodwaters, shielding many Middlebury farms from the worst of the storm's effects.

Riparian Buffers in the Working Landscape

Riparian buffers retain strips of natural vegetation along riverbanks, generally 20 to 50 feet wide. They mimic larger riparian ecosystems, like the ones that protected Middlebury during Irene, and allow natural river processes and communities of life adapted to floodplains to continue within agricultural landscapes. Buffers improve water quality, in particular, by acting as giant filters. High levels of nitrogen and phosphorus in agricultural runoff can disrupt river food webs and cause algae blooms. The trees, shrubs, and perennial herbs and grasses in riparian buffers slow overland

water movement, allowing sediments and nutrients to deposit into the soil and keeping pollutants out of waterways. The root systems of these riparian plants, adapted to frequent flooding, rapidly absorb excess nutrients and make use of what would otherwise be waste. Buffers are essential for swimming, migratory fish breeding, and other river functions that depend on water quality.

A host of government and local programs encourage farmers to plant riparian buffers, but many farmers choose not to participate. Some farmers simply can't afford to take any land out of production. Others don't want to see productive land sit "idle." Often, farmers simply don't want to sign on the government's dotted line; they want to manage their land independently, and state and federal buffer planting programs often require contracts and include usage restrictions. Local programs may only require a handshake agreement, but even in those cases planting the river's edge with trees restricts farmers' options. Some dislike the aesthetic of a brambly forest hiding the river from view. For these reasons and many others, farmers often avoid or flatly reject planting riparian buffers on their land.

But a new idea is showing up on Vermont riverbanks, a system that brings farmers back to the table. Growing agriculturally productive buffers is a strategy that can make sense for both farmers and conservationists.

Agriculturally Productive Buffers: An Emerging Option

Agriculturally Productive Buffers (APBs) are a form of agroforestry, integrating forest management with agricultural production. They incorporate the essential elements of traditional riparian buffers, but also include perennial crop systems. Typically, the portion of the APB nearest to the riverbank, Zone 1 (see diagram), is restored as natural riparian forest. Zone 2 is an alley of flood tolerant shrub or small tree crops, such as elderberries, hazelnuts, or fencepost black locusts. Finally, the field-side Zone 3 grows late-cut hay, keeping perennial grass cover during the spring and late fall flooding season. Productive buffers provide flood-resistant agricultural enterprises while incorporating natural river processes into farmland: flood tolerance, deeply taprooted trees, year-round plant cover, and room for river meanders.

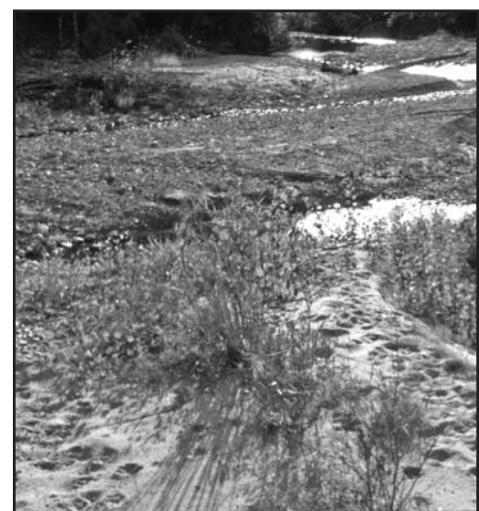
Agriculturally productive buffers may overcome the obstacles preventing farmers from participating in the current buffer planting programs. These buffers keep farmland in production and help farmers take care of both their land and their bottom line. There are no government contracts and no paperwork, though some groups are working to establish local funding sources and best management practices. It's also clear that many details of productive buffer systems will need to be learned over time. In a changing climate and economy, this flexibility and adaptation may well be critical.

Collaborating is proving key to the success of productive buffer projects. Local nonprofits are helping Vermont farmers with logistics, and some are finding funding for planting strips of native floodplain trees within APBs. These collaborations are allowing farmers to grow much needed riparian buffers, increase flood

resilience, improve water quality, create wildlife habitat, and grow crops. Crops currently planted as components of productive buffers in Vermont include nuts (hazelnuts, black walnuts) fruit (pears, currants, highbush cranberries), fenceposts (black locust), forage (late cut hay), and, of course, Stan Ward's elderberries.

The Friends of the Mad River, a local conservation organization, partnered with Stan to establish his elderberry buffers. Cairtin Noel, FMR's executive director, is cautiously optimistic about the potential for productive riparian buffers to become more widely used on Vermont farms. "Working with Stan to create working buffers definitely requires more flexibility." She says that APBs can help reconcile ecosystem health and community values. "It makes buffers more palatable to farmers who hesitate to take the land out of production entirely. If managed properly, I think the model could represent the best of both worlds."

Liz Brownlee helps Vermont farmers and conservationists partner to care for their rivers. She can be reached at ejbrownl@uvm.edu. Connor Stedman is an agroforestry specialist based in Guilford, Vermont. He can be reached at connor.stedman@gmail.com.



The physical features of riverbeds continually change with cycles of flooding.

Photo by Connor Stedman



Elderberry cuttings at Stan Ward's Vermont farm will soon grow on the banks of the Mad River. The riparian buffer planting is a collaborative project with local conservationists.

Photo by Liz Brownlee

Productive Buffers: Economics and Funding Sources

APBs can be funded through multiple sources, including crop revenue and certain riparian buffer grant programs. However, it is important to note that riparian buffers funded through CREP (the FSA's Conservation Reserve Enhancement Program) cannot include any harvesting or sale of agricultural or forest products. Some state and local funding sources may offer more flexibility. Upcoming trials in Vermont will evaluate the economics of a range of APB plantings, at commercial and smaller scales. These trials will help small farmers make informed decisions about APBs. If you'd like to learn more about APBs or current trial plantings, contact Liz Brownlee at ejbrownl@uvm.edu.

HORTICULTURE**Uncommon Fruits With Commercial Potential, Part 2**

by Lee Reich

In my previous article, the first part of this 2-part series, I made a case for growing uncommon fruits: The fruits' relative freedom from pests and ease of growth, along with their delicious and unique flavors, make them ideally suited to local markets. I then went on to describe some uncommon fruits — specifically, “fruits with a history” — that I recommend planting. In this second, concluding part of my article, I go on to describe other uncommon fruits that I recommend planting, continuing, for interest, my grouping of them into various categories.

Fruits a Little Finicky About Conditions

Juneberry, also known as shadbush and serviceberry (*Amelanchier* spp., Zones 3-8), is native in every state. The fruits are a blueberry look-alike but have their own flavor that has the richness and sweetness of a sweet cherry along with a hint of almond. In fact, Juneberry is related to apple and as such, suffers some similar pest problems. I can't grow them, but just four miles away, a row of them bears good annual crops. A number of varieties have been selected for ornamental and fruiting characteristics. Where Juneberries can be grown, they are worth planting; if pests are a problem, rip out the plants. But do give them a try.

Lingonberry (*Vaccinium vitis-idaea*) thrives only in cooler regions (Zone 4-7). It's a northern European favorite; merely utter the word “lingonberry” to a Scandinavian and watch their eyes mist up with longing. This evergreen shrub grows less than a foot high and spreads via underground runners to fill in an area.

Lingonberry is finicky about soil conditions. What's needed is a soil that is very acidic, rich in humus, well-drained, and low in fertility — just like blueberry, a relative. Before planting, check the soil pH and add granular sulfur to bring the pH into the desired range of 4 to 5. Mix some acidic peat moss into each planting hole and then, after planting 18” apart, mulch the ground with a couple of inches of wood shavings or leaves. Drip irrigation or regular watering is usually necessary, especially to get a planting established.



Author harvesting Nanking cherries, which bear prolifically with little or no care.

A number of varieties are available. For best fruit production, plant at least two varieties.

Fruits That Could Use Some Breeding

American persimmon (*Diospyros virginiana*, Zones 6-9) is a wonderful fruit plant. The tree is pest-resistant; it hardly needs pruning; it rarely succumbs to spring freezes (never, for me, after 25 years in a frost pocket). And, the fruit is delicious, like a dried apricot that's been soaked in water, dipped in honey, and given a dash of spice. From a commercial standpoint, the problem is that the fruit is very fragile, akin to jelly held in a thin skin.

Handled very gingerly, American persimmon could have commercial potential for very local sales. The fruit tastes awful until dead ripe, so grow varieties that can ripen with your growing season. Here, near the northern limit for persimmon ripening, my favorites include Szukis and Mohler. Dooley and Yates are also good.

Perhaps the future will bring new varieties that hold up better for marketing. For now, American persimmon is a very fragile, very delicious fruit.

Nanking cherry (*Prunus tomentosa*, Zone 3-6) is a true cherry that bears prodigious crops for little or no

effort on your part. But . . . the fruit is small (1/2-5/8” diameter) and harvesting leaves a tear in the fruit where the stem was attached. This fruit has much potential and a few varieties — now lost — with larger and tastier fruits were developed. Still, run of the mill seedlings, which are readily available, are very tasty and the plants bear quickly and are very pest resistant with little or no care. Cross-pollination is necessary.

Uncommon Fruits for Almost Everywhere

In contrast to American persimmon, Asian persimmon, also known as kaki (*D. kaki*, Zones 6-10), has been cultivated and bred for thousands of years — in Asia. Kakis are larger and firmer than American persimmons, and can be picked to ripen off the plant. Just a few varieties appear in American markets and those are mostly from California. My farm is slightly too far north of the northern limit for the hardiest kakis; in Zone 6 and warmer, you can be the only one around with Eureka, Giboshi, Giombo, and Saijo fruits, all of which are delectably sweet.

Hardy kiwifruit (*Actinidia arguta*, Zones 4-9, *A. kolomikta*, Zones 3-7), as its name implies, is a cold-hardy relative of the fuzzy, market kiwifruit, which is not hardy. The best thing about hardy kiwifruit, and the way they differ most from market kiwifruits, is in the fruit itself. Hardy kiwifruits have similar flavor and emerald green flesh as their market cousins, but the hardy kiwifruits are grape-size and have smooth skins. Just pop them into your mouth, skin and all, like grapes. Hardy kiwifruit also are sweeter and more aromatic, with hints of additional flavors such as banana, passionfruit, or pineapple. The fruits ripen in autumn, and once they reach a certain stage of maturity, can be stored under refrigeration from which they can be removed and ripened as needed. Anna, Geneva, MSU, and Dumbarton are some good fruiting varieties.

I grow hardy kiwifruit vines on wires strung down the length of a 5-foot-wide T-trellis. Plants are either male or female so you need to plant a separate, nonfruiting male vine to pollinate fruiting females — up to eight females per male. Kiwis are pest-free but do need to be pruned religiously and severely, once in winter and occasionally through summer.

Pawpaw (*Asimina triloba*, Zones 4-8) is an American native that, although hardy to below -25°F, has many tropical aspirations. The tree looks very tropical, with lush, large leaves. It's the northernmost member of the mostly tropical custard apple family. And best of all, the fruit tastes and looks tropical. It's flavor has been likened to banana with mango, pineapple, and avocado mixed in. I liken it to crème brûlée.

Success with pawpaw begins with a grafted tree of a named variety. In shorter season areas, I recommend the varieties Pennsylvania Golden 1, 2, 3, or 4. The trees grow fifteen to twenty feet high and should be given that same spacing, or a bit less, in full sun. Once a plant is in the ground and growing well, little further care is needed beyond harvesting the fruits — twenty-five to fifty pounds per plant — and occasional winter pruning.

Plants of these uncommon fruits are not as readily available as, say, apple trees, especially if you're seeking special varieties. A number of nurseries specialize in one or more of these uncommon fruits, and it pays to seek out specialty nurseries for these special plants.

More information on uncommon fruits can be found in the book *Uncommon Fruits for Every Garden* by Lee Reich (Timber Press, 2004) and by contacting Lee Reich, 845-255-0417 or garden@leereich.com.

Lee Reich, PhD is a farmdener and consultant in New Paltz, NY.



Szukis American persimmon is an early ripening variety for northern regions.

Photos by Lee Reich

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Although resembling blueberries, Juneberries have their own unique, delicious flavor.



Pawpaw has tropical aspirations, with texture and taste of banana along with hints of mango, pineapple, and avocado.

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