## Heirloom

Continued from Page C1

Northern Plains Sustainable Agricultural Society in North Dakota and the Ahkwesahsne Cultural Restoration Program at the St. Regis Mohawk Tribe Environment Division in New York.

Two months ago, the students shipped out the Bere Barley seeds to Scotland.

"It's a type of barley supposedly brought to the Shetland and Orkney Islands by the Vikings in 800 A.D., Lash said. "Through DNA testing, we know the variety is an ancient one, but we can't say for sure if the Vikings brought them."

In Scotland, according to Lash, professor Rob Lee and his crew are working to reintroduce the crop to the Kintyre peninsula. In return, Lee sent Medomak a box of Atlantic hazelnuts from a grove in Scotland dating back to the Ice Age.

We are still stratifying them," Lash said. "And will add them to our Living History Arboretum if they germinate.'

In recent years the program has branched out to include poultry and Lash's students are currently working with three different heritage breed chickens — Golden Campines, Buckeyes and Chanteclers.

"These are all multipurpose birds that give a little bit of meat and a little bit of eggs," Lash said. "They are not tremendous layers or meat producers and that is why these breeds are biting the dust rapidly."

The Golden Campines, according to retired professor



MICKY BEDELL | BDN

Horticulture teacher Neil Lash (right) helps student Tyler Bowman pot American chestnuts on Wednesday. With more than 800 varieties in its seed bank, the Medomak Valley High School Heirloom Seed Project is the oldest and one of the largest high school-based seed saving programs in the country.

John Twomey of Montville, are critically endangered, with fewer than 500 breeding pairs in the country. This week he delivered 12 Campine chicks, which can trace their family tree back to ancient Rome and Julius Caesar, to Medomak.

These chickens developed in the Campine region of Belgium, where there is poor soil and quite a harsh climate," Twomey said. "They are able to forage avidly, fend off predators, and their coloration is such that they are not easy to see, so are well camouflaged."

Legend has it, he said, that when Caesar invaded that region, he encountered the chickens and was so impressed he took some back to Rome.

These are not egg-laying

machines," Twomey said. "One hen can lay 180 to 220 eggs a year, but they will lay in the winter without artificial lights."

At one time, he said the Campines were a popular breed in this country and a Mainer is credited with bringing the first breeding pair to the U.S. decades ago.

"I love that the [Medomak] students are working with these heritage breeds," Twomey said. "Promoting genetic diversity is a good thing to maintain and doing so shows respect for our elders who developed these breeds and varieties in the first place.'

Students in Lash's program receive science elective credit for their work, but agree they get far

more than that out of it.

"It offers a different learning experience rather than just doing book work," Riley Arbour, a senior from Union, said, "It's nice to go out to the greenhouses and have that hands-on experience.'

For Arbour, who plans to attend the University of Vermont to study biochemistry, the program provided a reallife historical connection with a real family tree.

"I was down in the arboretum at our outside fire pit with my mom and we were looking at a honey locust [tree] there that we had that is from a tree that was at the [Civil War] Battle of Antietam," Arbour said. "It turned out my great-great-grandfather was in that battle as a Union soldier and my mom had his history. My greatgreat-grandfather could have walked by that tree [and] knowing that really bridged between horticulture and personal history."

Fellow senior Jackson Vail said the project has provided opportunities to connect with people outside the classroom.

"We not only focus on preserving biodiversity, we are also making connections with people in the community and internationally also working on seed preservation," Vail, who plans to study ecology at Princeton next year, said. "We really are doing important work."

Senior Cassidy Dever said she has been involved in gardening ever since she was a child working in the dirt with her mom.

'Now I am learning so much about how much better these heritage seeds are and that they really produce food that is better for us and tastes better than food from the more mass-produced, overly modified seeds," she said.

"I love that we are preserving history [and] the seeds our grandparents grew up with.

Lash said the students try to select plants that will grow in Maine conditions, which can be a challenge.

"We don't use grow lights," he said. "So we need to be aware of the length of daylight and what plants are sensitive to that.'

With 800 — and counting successful seed-producing heirloom varieties blossoming in the program, Lash and his students certainly seem to have figured it out.

"This work is so important," Arbour said. "Once you lose these seeds, you have lost them for good [and] it's really nice to know we had a hand in hopefully preserving a few of them.'

Heritage seeds from the Medomak Valley High School Heirloom Seed Project are available online through the website www.mvhsheirloomseedproject.com/.



MICKY BEDELL | BDN

In recent years the Medomak Valley High School Heirloom Seed Project has branched out to include poultry. Students are working with three different heritage breed chickens -Golden Campines, Buckeyes and Chanteclers.



JULIA BAYLY | BDN

After a long winter, the alpacas at Aroostook Fiber Works enjoy some spring sun.

# **Fiber**

Continued from Page C1

to ship out to Alaska," Tardie said. "It's from this sheep named Shaun in Cordova [Alaska]. That's the only pet sheep in that town. I love that story so much, I told them I'd do it for free.'

Tardie does spend a great deal of time on the road and estimates about 90 percent of the fiber he mills comes from within the state, which he picks up raw and delivers as a finished product.

"Our turnaround time is around 10-weeks," he said. 'We normally work on one client's [fiber] at a time to avoid contaminating their fiber and to stay organized."

Plastic bags overflowing with raw fiber are stuffed into every nook and cranny in the shop's entryway where the wool begins the milling process.

The first thing we have to do is wash it," Tardie said, pointing to a large, stainless-steel closed vat, where the water temperature reaches 160 degrees. 'Then we dry it on racks.'

Once dry, the fiber is placed in a homemade outdoor tumbler to begin separating the fibers.

The area outside Tardie's mill is littered with little puffs of that fiber that he said make excellent nesting material for the area's songbirds.

"Of course, they could be doing a better job picking it all up," he laughed.

Back inside, everything is automated. The next stop is into the picker and blower, which puffs up the fibers, Tardie said.

Some variety of fibers, including alpaca, is next placed on a dehairing machine, which removes longer, course fiber, which he said can make the finished product "picky.

He holds on to that "waste" fiber and turns it into thick yarn, perfect for making rugs.

Once picked over, the puffy fiber goes into the carding machine, where the make it."

separate rows.

"This is the heart of the operation," Tardie said. "This machine really gets me excited. You are taking something out of a bag that was kind of stinky and now turning it into something really nice."

Outside Tardie's mill are little puffs of fiber that he said make excellent nesting material for the area's songbirds

The wool can end it's milling there as "roving" fiber that can be handspun. Tardie can also pass it on through a series of other machines in an automated spinning process to produce skeins of yarn.

"The spinner [machine] can create yarn so thin you can hardly see it on a bobbin to something as thick as your little finger," Tardie said. "Everything we do is totally custom to what the client wants.'

Tardie spends about 14 hours per day in his mill during the week and about six hours per day on the weekends.

When she can, Roxanne a full-time librarian and their teenage daughters all pitch in.

Tardie said the mill can produce 16 pounds of yarn over an eight-hour period.

Early on, the Tardies were warned to not advertise their milling operation, which they financed themselves with guidance from the Northern Maine Development Commission in Caribou, instead relying on word of mouth because of what was described to them as an overwhelming need for small, custommilling operations in the

"Word kind of leaked out that first year," Tardie said. "By this past Christmas, our business just exploded, and we realized, 'Hey, we can

individual strands of the The mill is wrapping up fiber are pulled into straight, orders placed by spinners and fiber producers participating in the Maine Fiber Festival in Freeport and is starting to work on fiber destined for the Common Ground Country Fair in September.

Along with the fiber coming in, the Tardies will begin sheering their alpacas at the start of June.

Tardie chalks up much of the mill's success to his willingness to work with clients to create the exact texture and strength they are looking for in their yarn.

Looking like a cross between a mad scientist and a modern day Rumpelstiltskin. Tardie controls the yarn's texture and strength through mathematica formulae he programs into the pinning machine to get specific twists per inch and number of strands.

'The learning curve on this was straight up," he said. "There was really no easy way to start, so it's been a lot of trial and error.'

But he said his clients appreciate the efforts. "These are people who

want to work with natural fibers," he said. "If we can turn them into something they really want and enjoy, everyone is happy.'

Tardie laughed when asked whether he has a favorite fiber to work with. He said all varieties have their own challenges and rewards when it comes to milling.

Sheep's wool, for example, can be greasy because it contains lanolin, also known as "wool grease."

Alpaca, on the other, hand has no such grease and is, thus, prefered by people with allergies. "When we wash sheep

wool, we lose about 20 percent of it's weight in lanolin," he said.

Some mills hold on to that 'wool grease" to make soap, something Tardie said is not on Aroostook Fiber Work's

'You have got to say no to some things at some point,' he laughed.

#### Sustainability at **Sugarloaf Center**

KINGFIELD — Sustainable Community Symposium will be held 7-9 p.m. Friday, May 6, Sugarloaf Outdoor Center, 5092 Sugarloaf Road.

Interested in learning about local living and creating a more sustainable community? Join Maine Mountain Children's House for a cocktail hour with live music, decadent desserts made by local bakers, silent auction featuring local goods and services and a panel of experisustainability through a commitment to our community and our planet.

Our speakers include Larry Warren, founder of Maine Huts and Trails; Amber Lambke, executive director of the Maine Grains Alliance; and James Manzer, a solar design adviser for Re-Vision Energy.

Individual tickets may be purchased for \$30 at http:// mainemountainchildrenshouse.org/2016/sustainablecommunity-symposium. Drinks, desserts, and entertainment included.

#### enced speakers discussing Kids Can Grow class at Aldermere

ROCKPORT — The Kids Can Grow program helps families with children age 8 to 12 learn about growing food using the square-foot gardening method. A six-session course will be held 4-6 p.m. the third Wednesday of each month, May through October, at Aldermere Farm. Parent orientation will take place Wednesday, May 11. Registration deadline is Monday, May 9. For information, email jalbury at mcht.org.

### Farm

Continued from Page C1

Sanford, who lived on a farm in Shapleigh for 30 years, felt access to fresh food was crucial to healthy urban living. They seized the opportunity to create a rural food

pipeline for their tenants. This new concept, called The Farm at McKenney Road. is a fresh take on community-

supported agriculture. Beyond the Banded Horn spruces, organic produce such as arugula, cucumbers and spinach will be grown for artists and professionals who live and work in the renovated mills. Farm shares will be exclusively for tenants at first, and the farm will offer partnerships to mill businesses like Banded Horn. Starting in June there will be a small farmer's market in the mill each Thurs-

Instead of farm to table, this is more acres to apartments, rows to residents.

"We are gearing it towards the mill tenants, said Sanford's wife and business partner Cullity-Sanford, who lives in the mill and has planted a rooftop garden with 12 raised beds. Instead of limiting themselves solely to rooftops, they purchased the historic Saco farm 8 miles away. It had great soil and a farmhouse that was falling apart. Both have been renewed and revitalized. To keep everything humming they tapped a young, energetic farming couple to manage it.

"I want the people in the mill to think it's their farm," said Michael Whitmore, the Biddeford native and farmer now in charge.

Whitmore was homesteading off the grid with his girlfriend in Winthrop, when he had an epiphany. "Downtowns have the potential to be green," he said.

"I moved to Central Maine searching for the farming lifestyle. It wasn't to get food to downtown. But the concept of serving people in the mill is a more sustainable model," said the farmer, with a farm, you can do



KATHLEEN PIERCE | BDN

Jan McConnell, founder of Banded Horn Brewing Co., plants a spruce tree as an employee looks on. When the tips are ready to harvest he will use them in his Greenwarden Ale.

who was driving 20 miles to things you can't do in the get to a store. "I feel like in the mills, the missing link is the food. Eventually we want to sell fresh produce there daily."

The organic farm he oversees is starting small. "It's like a garden on steroids," said Whitmore, who is planting a bounty on a one-acre plot. "We are using livestock, pigs, chickens to get a healthy ecosystem that plays into the next phase."

The next phase includes partnering with chefs such as Thomas Malz of Custom Deluxe on Main Street. The comfort kitchen is already garnishing pasta dishes with fresh pea tendrils from The Farm. In June, farm dinners in the field will showcase the bounty in a more casual setting than Flanagan's Table in neighboring Buxton.

"He [Malz] is really excited about the opportunity to cook outside on an open flame. It will be a cool backcountry environment," said Whitmore. The featured beer? You guessed it: Greenwarden, which will be released just in time.

A year-round market, featuring greens from The Farm's hoop house and greenhouse, is the long-term

"It's something that needs to be done more often. By establishing a partnership city," said Cullity-Sanford. "It's another benefit for resi-

As consumers grow more savvy about local products and ingredients, more beer farmers may sprout. But McConnell doubts many

will go this far. "Most seasonal beers are planned, sold and promoted months in advance, but Greenwarden, like the weather, plans itself. All we can do is try to make sure we have tips to harvest," said the

Etna native. Living and working closer to the source helps for quality control. McConnell can stop by The Farm to prune tips as a batch of ale works in the fermentor. Farming your own ingredients is new for brewers, but if this works out, he may plant hops and botanicals.

'We're taking the tack of treating it like a Christmas tree farm. Spacing trees so they get full sun, pruning them to develop more tips and strong roots. I've done a lot of research and spoken to a few experts in trees and farming. I can only hope we're on the right track and learn as we

go," said McConnell. As the seeds for The Farm germanate, this concept will continue to flourish.

"I love fresh food," said Cullity-Sanford. "I'd rather get my greens from Saco than California."