

Photos by ANNETTE NIELSEN/For The Saratogian
ABOVE AND LEFT: Moondance shiitake mushrooms grow out of logs on Weeping Birch Farm in Greenwich.

BELOW: Forester Jon Raymond leads a Cornell Cooperative Extension field meeting on the farm.

Foraging in the forest

Greenwich dairy farm adds specialty mushroom growing to its repertoire

By ANNETTE NIELSEN
 For The Saratogian

At Weeping Birch Farm, you'll find an active dairy farm, with more than 100 cows milked each day, but venture into the woods and you'll find Tina McMurray's mushrooms growing on stumps, on logs and even on leaf piles.

Taking the advice of a forester who looked at the farm's woodland, McMurray embarked on a great endeavor to produce mushrooms — not just your ordinary button variety, but specialty oyster and shiitakes.

"The forester told us we could make the waste wood profitable and suggested either growing mushrooms or ginseng," says McMurray who, with several family members, works on the farm. The property has been in her family since her grandparents purchased it in the early 1940s.

McMurray applied for a Sustainable Agriculture Research and Education grant that allowed her farm to grow specialty mushrooms on woodland waste. It was a great way to make use of woodland, especially after a timber sale.

A USDA competitive grants program, SARE grants offer regional programs and



Photo courtesy of Laura McDermott

Working with John Boyle, a well-known expert in the field of mushrooms, McMurray began the labor-intensive planting process.

Using bolts (typically four- to six-inch diameter hardwood logs cut to four feet), the spawn is planted in holes drilled at three-inch intervals in a diamond pattern. After the spawn is inserted into the holes, the holes are sealed with a heated cheese wax, allowing the spawn to feed off of the

thing," McMurray says.

McMurray, a real inspiration, is partially paralyzed because of a surgical accident last fall. Through intense physical therapy, she has remained optimistic and good-natured. Not able to pick the mushrooms herself due to limited mobility, she relies on her family and friends to help out.

Accompanied by Derek Dearstyne (a farm employee), her sister Bonnie, brother Robin, sister-in-law Holly, and nephew

'SHROOMS: Farm has grant to grow fungi

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McMurray pointed out what to look for in the shiitake mushrooms and how to identify one that's fresh and ready to be harvested.

"You need to look at the underside of the mushroom — turn it over. The gills should be white, moist and soft," McMurray says.

The varieties of shiitakes McMurray has planted include Moondance, Northern Lights, Southern Belle, WR 46, Night Velvet and Snow Cap.

McMurray also pointed to the oyster mushrooms that are growing as a direct result of the SARE grant, including some rare varieties like Strophoria, Lion's Mane and Reishi G.V.

Through this project, McMurray is setting standards, too. According to Cornell Cooperative Extension, there is no other project like this being done directly in the woods on such a large scale. At this stage, it's difficult to predict the total yield of the harvest or any obstacles the farm might encounter along the way.

"Part of the process extends beyond the planting and harvesting, you need to show ways to pick, store and use the mushrooms, too," says McMurray enthusiastically.

McMurray suggests storing

the mushrooms in a paper bag, so they can "breathe" — and adds that you should never store them in plastic bags or wrap.

Shiitake stems typically aren't eaten because of their woody texture, but are flavorful additions when making a stock or sauce.

Upon returning home, I tried some of the Moondance shiitakes — in a very simple fashion — the caps sautéed in butter with a sprinkling of salt. With a light earthy flavor, these mushrooms were better tasting than any store-bought mushrooms I've ever prepared.

Marketing a new product can present its own set of challenges, but McMurray is optimistic that area restaurants will catch on and use these delicacies, featuring the mushrooms as one of the great local ingredients available in our region.

In addition, she hopes to participate in this year's Cambridge Farmers' Market and establish a following home cooks.

Visitors can purchase mushrooms at the farm, but it's advisable to call first: Tina McMurray, Weeping Birch Farm, 12 Old Cambridge Road, Greenwich, NY 12834. Call 692-2507. For more information about SARE grants, call (802) 656-0471 or visit www.sare.org.

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Family unsure of harvest's yield

◆ FAMILY

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They filled each hole with shiitake spawn, about the size of salt, from 32 five-pound bags, at a cost of about \$15 a bag. They covered each hole with melted cheese wax. Each log was tagged with the mushroom variety and the date the log was "inoculated."

John Boyle, a mushroom expert from Greene County, said 600 pounds of spawn from seven other species of mushroom were planted — including oyster, lion's mane, reishi and winter mushrooms — in tree stumps, logs, wood chips and bales of hay over an 80-acre area. The shiitake is not part of the project because substantial data on the mushroom already exists, he added.

McMurray said that although

Boyle has predicted that she will harvest 12 to 15 pounds of shiitake mushrooms next spring, she has yet to approach area restaurants about sales because she's uncertain of her yield. The shiitake mushrooms can garner about \$6 per pound.

McMurray said she's excited by the project, but it has yielded a downside she hadn't anticipated. The long hours lifting and bending to drill the logs ruptured two disks in her back and will require surgery soon, she said.

"Don't cut your best trees. Do not completely remove the top of your tree."

JON RAYMOND

forester, on how best to use land for planting mushrooms



GERALDINE FREEDMAN—THE POST-STAR

McMurray points out a shiitake mushroom at her Weeping Birch Farm in Greenwich. Seven other species of mushrooms have been planted as part of a project to determine if growing gourmet mushrooms is feasible.

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Family growing new crop in stumps

Greenwich | Grant
funding experiment
on mushroom growth

By **GERALDINE FREEDMAN**

Correspondent

GREENWICH ♦ Tina McMurray had never eaten mushrooms before, but growing them has made her a fan.

"It's exciting," she said. "But it's a lot of work."

The McMurray family's 59-year-old Weeping Birch Farm recently received a \$4,100 U.S. Agriculture Department grant. They're using the grant to research whether gourmet mushrooms planted in woodlands after tree harvests — with conditions controlled entirely by Mother Nature — can be productive enough to make a profitable business, said Laura McDermott, Washington County Cornell Cooperative Extension's horticulture educator.

Mushroom-growing is a secondary business to the McMurrays' 100-cow dairy operation, McDermott said. It's important to the McMurrays to collect data on the money, time and labor expended on the project, she said.

A few businesses in the area grow mushrooms commercially, McDermott said, but they are grown under controlled conditions, in a confined area and with fewer species.

On Thursday morning, before about 30 people trudged up the steep hill behind the McMurrays' barns to get their first view of their mushrooms, forester Jon Raymond offered tips on doing a selective harvest before planting the mushrooms.

Mushrooms prefer hardwood trees like oak or ironwood and they like shade, Raymond said.

"Don't cut your best trees," Raymond said. "Don't completely lop off the tops of your trees. Leave some stumps about 24 inches high because it's easier to drill holes to plant the spawn in than to stoop down to ground level. Lay out a good road system."

In the cleared area of the farm, visitors could see a few shiitake mushrooms, one about 3 inches wide, sprouting out of the 4-foot long oak logs stacked crosswise in groups of 10. McMurray said family and friends spent hours in April drilling 60 holes about 1 1/2 inches deep in each log.

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WASHINGTON COUNTY

Greenwich farm tries growing exotic mushrooms; Oct. 3 open house

By Sharon Tefft Bozovsky
Chronicle Freelance

A Greenwich dairy farm is pursuing a federally-funded initiative to try growing exotic mushrooms.

Tina McMurray, who runs the mushroom enterprise at her family's Weeping Birch Farm, says they're looking to grow 27 varieties of unusual mushrooms, including reishi, maitake and shiitake, at the original suggestion of a forester.

"After we had done a selective cutting of hardwood," says Ms. McMurray, "our forester suggested we look into whether we could grow mushrooms on the forest debris. We have been working on the project since late March and just finished up inoculating with the spawn in May. We picked our first mushrooms right after the [Washington County] fair was over."

'Sustainable Agricultural Research'

The McMurrays are participants in a U.S. Department of Agriculture program called Sustainable Agricultural Research



Above: Tina McMurray and her father, Bill, with mushroom types they're growing at their Greenwich dairy farm. Right: A shiitake mushroom growing on an ironwood bolt.



decomposed wood chips or hay bales. Drilled a 'mile of holes,' inch at a time

"It was pretty slow going at first," Ms. McMurray said. "We didn't really know what we were doing. But after a while we got a system going."

"Everyone in the family helped, especially my right-hand man, Derrick Brownell," Ms. McMurray said. "It was really quite a job hauling a generator and all those extension cords through the woods. We needed the power for the drills and to melt the wax."

"We drilled a mile of holes, an inch at a time," said Tina's brother Robin McMurray. "Some of the stumps had 100 holes in them."

The stumps, or bolts, are stacked Lincoln Log-style to facilitate harvesting and storage.

The McMurrays use golf carts to reach the mushrooms and now are pondering the most efficient methods of harvesting.

The SARE grant funded research into growing 12 strains of oyster mushrooms and two strains of hen-of-the-woods or maitake, winter mushroom, wine cap, blewit, reishi and lion's mane.

On its own, Weeping Birch also started eight strains of shiitake mushrooms.

Ms. McMurray said they are already thinking about the best way to market and distribute the mushrooms. She said they would like to hear from any chefs, distributors or retailers who might be interested

in their product.

Weeping Birch Farm will have an open house for the public to view their mushroom growing operation on Thursday, Oct. 3, starting at 11 a.m. For information and directions, call Weeping Birch Farm at (518) 692-2507.

and Education (SARE).

Since 1988, SARE has funded more than 1,800 projects nationwide, mostly involving on-farm research trials with crops and/or livestock that promote integrated farm systems, soil and water conservation or agricultural marketing.

Weeping Birch is a dairy farm that milks about a hundred cows and grows its own feed, as well as operating a custom hauling business.

The farm applied for and received a SARE grant last spring, and with the money hired mushroom consultant John

Boyle. He helped the McMurrays select 27 varieties of fungi, and they subsequently "inoculated" downed logs, stacks of rotting hay bales, decayed wood chips and freshly cut tree stumps with the mushroom spawn.

Adjacent to logging trails, more than 100 mushroom beds now await the optimum temperature, moisture and decaying material.

No guarantee they'll succeed

At first glance, this mushroom farm in the forest doesn't appear to have an organized, methodical system of production. Yet, on several acres, precise notations are being kept on mushroom strains, dates of inoculation, conditions and harvesting data. All mushrooms have to be typed, weighed and logged in to the detailed records required for the study.

"The whole purpose of the study is to determine how well these mushrooms do under natural conditions," says Ms. McMurray.

She says it's not a given they'll succeed, especially with the dry conditions of the past year. She said Mr. Boyle also cautioned them not to expect a lot of mushrooms until the fungi have "colonized" in their growing medium.

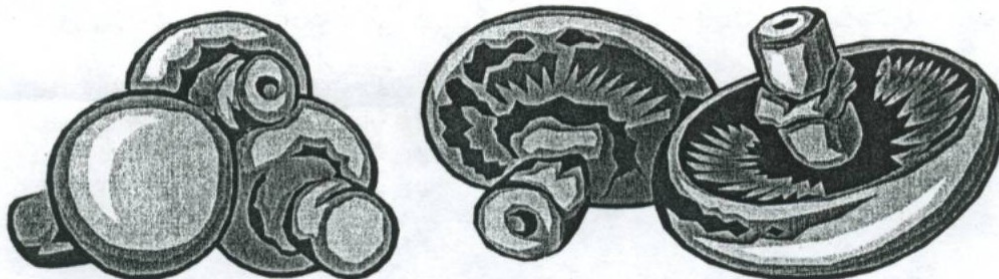
"We hope we'll have a lot of mushrooms to harvest," Ms. McMurray said. "But we just don't know. That's what the study is all about — to see whether it can be done naturally in this area."

Creating the operation had the McMurrays drilling holes in fresh ironwood tree stumps, inserting the spawn and filling the holes with cheese wax to prevent contamination. Some mushrooms were planted in v-notched downed logs, and some on

Weeping Birch Farm
invites you to learn about
**Growing Gourmet Mushrooms on
Woodland Wastes**

at an
OPEN HOUSE

On
Thursday, October 3 at 11:00 am



A SARE Farmer grant helped support the planting of 7 varieties of mushrooms on stumps and other remains of a selective harvest of hardwoods that include Oak, Maple, Beech, Birch, Aspen and others. Shiitake mushrooms are also being grown on Ironwood bolts made from remains of treetops. Harvest data will be kept to determine the most reliably productive combination of mushrooms and hardwood substrate.



Directions: From Greenwich, NY take Rt. 372 east towards Cambridge. Approximately 4 miles after the bridge in Greenwich, turn left on Seacord Rd. Take your first left on Old Cambridge Rd. Weeping Birch Farm is on the right.

This workshop is sponsored by Cornell Cooperative Extension in cooperation with Weeping Birch Farm. For more information call 1-800-548-0881 or 518-746-2560.