



An Old Crop Finds a New Home

Text and Photos by Carl E. Feather

Sorghum: Think of it as autumn's "maple syrup," but sweeter and kinder to the farmer.

Although more widely grown in the Southeast, sorghum is often offered as an alternative to maple syrup at pancake breakfasts in the Mountain State. And niche growers are picking up on its high value as a farm product and planning events centered on its harvest and syrup production, just as maple growers have done.

An example is Family Roots Farm in Wellsburg. This Brooke County farm has been in the Hervey family since the 1770s, when Henry Hervey homesteaded the mountain-top tract. Now in its seventh generation of Hervey family ownership, it's operated by Charlie and Britney Hervey Farris with help from her parents, Fred and Cathy Hervey. Their farm produces maple syrup and seasonal produce sold directly to the consumer. Sorghum was added to the mix in 2015.

Sweet sorghum starts as a sap extracted from the canes of a grass: *Sorghum bicolor* (L.)



Roger Rothwell keeps an eye on the row of sorghum cane as he drives a tractor and corn binder during the sorghum harvest at Family Roots Farm.

Moench. Some believe the first sorghum seeds in the United States were introduced by African slaves. As early as 1757, Benjamin Franklin suggested using the crop to produce brooms. Because it's heat and drought resistant, sorghum has long been a popular plant in the Southeast.

Today, Tennessee and Kentucky are the nation's leading producers of sorghum, but the Herveys are helping to make it a viable commercial crop in West Virginia. To generate consumer interest, they planted an acre of sorghum next to their sugar shack. When the

slender stalks grew to 12 feet in height, customers started asking questions. "They'd say, 'That's a really nice field of corn you got growing there,'" says Charlie. "And then they'd ask, 'Where are the ears?' But the older people knew exactly what it was."

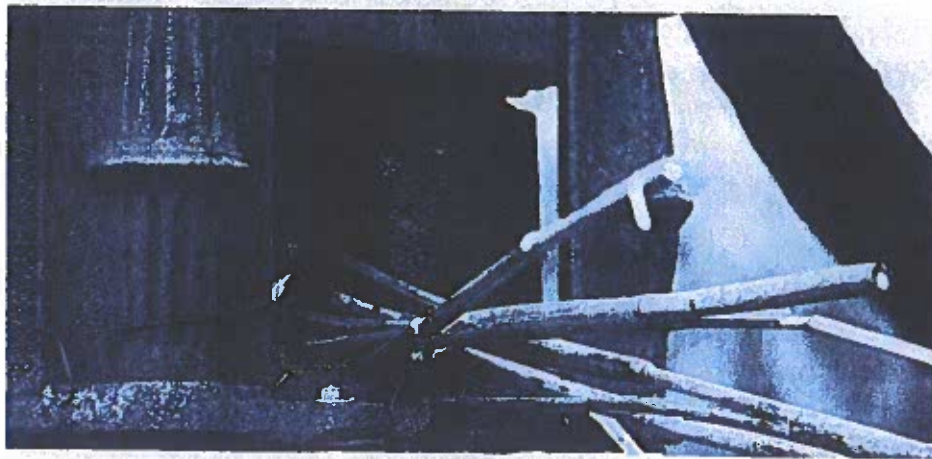
Although both Charlie and Britney come from rural backgrounds, neither had experienced sorghum until 2013, when they encountered it at the Algonquin Mill Festival in Carroll County, Ohio. It piqued Britney's interest, and she began researching the crop as yet another way to expand

the farm's output. Because they were already producing maple syrup and had an evaporator, sorghum seemed like a good fall product. Further, consumers increasingly are seeking natural sweeteners, and the production process has agritourism appeal. So, it was a good time for the Herveys to build an event around the harvest. They hosted their first Sorghum Days in October 2016.

"One of the goals of our farm is to become sustainable," Britney says. "Being able to open our farm up to folks of all ages to learn the process of sorghum making and to see smiles on everyone's faces as they take part in the harvest are rewarding. We have a love and passion for agriculture and truly enjoy sharing that with others."

The Herveys' decision required investment in a cane press, a piece of steampunk that crushes the cane to access the light-green sap. Typically powered by a horse or mule walking in circles, the press uses metal rollers to coax the sap from the cane. A trough at the bottom of the roller array then collects the juice.

Because most small farms got out of sorghum production in the last century, many sorghum presses languished in the corners of barns until farmers sold them for scrap. Because successive generations had no idea of the oddity's purpose, other presses were lost to ignorance. Esoteric, rare, and antique presses are best located



Dried sorghum canes are crushed by the iron cylinders inside the antique press.

by tracking down someone who owns one; chances are they own several, and one of them will be for sale.

Charlie and Britney bought their Western Cane Mill No. 2 in Salem, Ohio, for a good price. Charlie says larger presses can weigh up to 1,000 pounds and cost thousands of dollars when restored. He notes that their relatively small press would be more efficient if it was restored. The surfaces of the three rollers have been worn down by years of use and need new grooves cut so they can better grip and crush the cane.

The press rests on a frame of angle iron to distribute the weight and keep it from tipping over. The arm, which connects the power source to the mill shaft, must be of sufficient length, weight, and shape to transfer the power. Their mill came with a locust branch that a previous owner had selected for its strength and curvature.

"It's a little bit hillbilly," Charlie says. "But it came with the press, and it works."

Charlie says that their press creates a substantial amount of resistance when loaded with cane and that while a strong man could power it for a short stretch, he'd get a good workout in the process. A garden tractor, while not as rustic or historically authentic, is a good substitute for a beast of burden.

Roger Rothwell volunteers for the monotonous task of driving the tractor in a circle, about 25 feet in diameter with the mill at the center. Roger is a family friend who worked on the Herveys' dairy farm before it closed.

"He's a really good family friend," says Britney, who credits both Roger and Gary Rush, a coal miner, for always being available to help re-invent the farm.

Roger sets a pace of slightly more than two revolutions per minute. One person feeds the cane into the mill while a second pulls the spent rods from rollers. People working around the mill soon learn to duck about every 30 seconds,

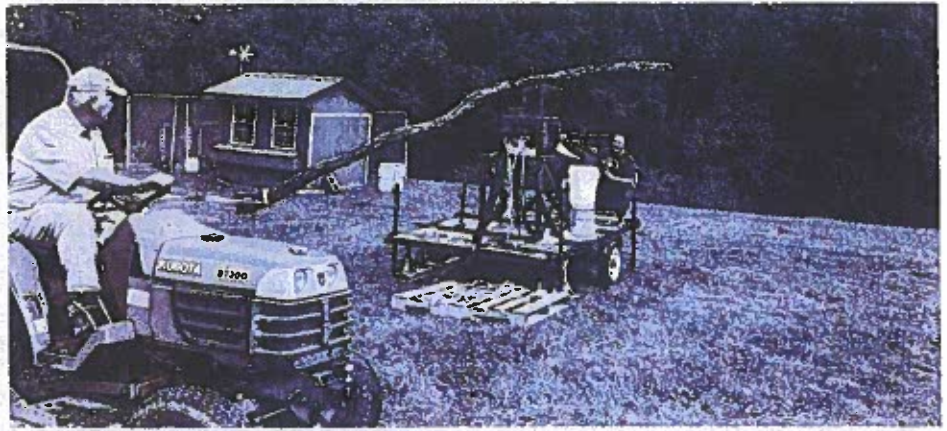
when the long arm approaches their noggins.

For convenience and efficiency, the mill is located between the cane field and the evaporator. The canes are fibrous and rigid; a machete is typically used to harvest them. For obvious reasons, this can be dangerous. So, Charlie and Britney sought a mechanized solution and found it in yet another piece of steampunk: a corn binder.

Pulled by a horse or tractor, the binder grabs the stalk and holds it in place while an articulating blade cuts through it. The severed stalks are collected in a metal arc at the rear of the binder; an operator riding next to it discharges the bundles of stalks into the field when the holder gets full. A forklift at the front of the tractor gathers the bundles, which weigh 50 pounds or more.

The stalks must be trimmed by stripping shoots and leaves from the canes and cutting off the seed head that tops the stalk. This requires many hands but can build a sense of community across generations and backgrounds.

"I think it's pretty fun," says Emily Tribett, a middle school student and daughter of Methodist pastor Carl David Tribett. Emily and her brother, Sean, are home-schooled and come to the farm for field trips. Miriam Faulkner, 75, a family friend at the other end of the age spectrum, works alongside Elizabeth Mitchell and her daughters, Emy and Elizabeth,



Fred Hervey, Britney's father, drives the tractor that powers the antique sorghum press. The locust branch, which came with the mill, is an integral part of the apparatus.

and their cousins, Madison and Mason Rees.

"It never gets boring," says Mason, who keeps feeding the mill with the cleaned canes. "I love being in the outdoors."

The work gets the pastor thinking about sermon potentials. "I could talk about the sweetness of life and God, the laborers in the field," says Rev. Tribett as he pulls spent canes from the mill. "There are all kinds of metaphors I can use here."

Neighbors, curious about all the traffic, gather to watch and often get drawn into the work. "I saw the event sign and got to wondering what they were doing today," says Tim Stanley. "So, I went on their website and read that they were making sorghum."

It's a new experience for virtually every person who contributes. Few had tasted sorghum before Charlie and Britney introduced it to this ridge, and the experience of harvesting and processing it is even more obscure to them. Charlie says that, aside from the farmer who introduced them to the plant, "every other person

I've talked to [who is producing it] is 55 years old or older."

It also appears to be a new experience for the land here. "There is no record of sorghum making on the farm. [It was] previously a dairy farm, with a record of grains being grown during the 1800s," Britney says.

Britney is the educator; Charlie calls her "the brains of the operation." She shares recipes and samples with visitors and explains how molasses, often confused with sorghum, is a byproduct of making refined sugar rather than a primary product. She talks to them about brix, a scientific measurement of sweetness based upon the amount of sucrose in an aqueous solution: 1 gram of sucrose in 100 grams of water is 1 brix. Sorghum is finished at 78 to 80 brix, so it packs a lot of sugar in a thick package. Used in baking and cooking as a substitute for molasses or sugar, sorghum also can be eaten straight up or in combination with maple syrup on waffles and hotcakes.

Sorghum prices roughly follow those of the farm's maple

syrup. Visitors who witness all the labor that goes into producing 20 or 30 gallons quickly come to appreciate the fair asking price.

The labor input is similar to that for maple syrup, but Charlie points out that the farmer can determine, within a window of several weeks, when the sorghum processing will be done. With maple syrup, however, the window is opened and closed by weather alone.

To promote her product, Britney organizes a craft make-it/take-it event at the farm during Sorghum Days. The project incorporates sorghum canes, seed heads, and leaves with other fall staples, like Indian corn, to create door decorations.

Moira Dunlop, who lives in Great Britain, was visiting her daughters and their families in the Wellsburg area and joined them for the farm visit. "It's amazing," Moira says of the sorghum process. "This is a real job for us. I had never seen this process before, and it's amazing."

Moira says sorghum syrup is unknown in her part of the world, so she was eager to sample it in various forms. "I tried the cookies, fudge, and popcorn," she says. A piece of bruised cane, passed around the craft table, gives the guests a sweet taste of the syrup's humble origin.

It was getting late in the day when Moira visited, and only one row of sorghum cane remained to be harvested. Gary Rush was riding the binder,



Harvest requires many hands, young and old, to get the job done. From left to right are Britney Hervey Farris and Sean Tribett cleaning canes; Miriam Faulkner; and Charlie Farris and Emily Tribett working the mill.

while Fred Hervey was driving the tractor. Inside the sugar shack, a wood fire in the evaporator was bringing the sap to a boil under the watchful eye of Elizabeth Mitchell.

Britney says sorghum is boiled at 228-230 degrees, a higher temperature than maple sap. It also has to be skimmed throughout the process. "When you boil it, you are constantly skimming off the starches that come to the top as a green film," Charlie says.

Neither the film nor the sap is visually appealing. It's only when the heat completes its transformative work and the amber syrup emerges from the tap spout that the genius of the process is realized. By then, it's late in the evening or early the next morning. Most of the neighbors are at home sleeping or watching television, but the lights are still on in the evaporator house and steam is rising into the chilly October air.

Britney says their yield was only about half of what the couple anticipated. Part of that was because they planted two

varieties to compare. As with everything on the farm, the results will be charted and used to guide their variety selection and planting decisions.

Perhaps more importantly, though, are the intangible yields of Sorghum Days: building community and spreading education as neighbors and friends come to appreciate the laborious story tucked inside each jug of sweet sorghum.

"Like anything in agriculture, it doesn't happen overnight. It takes time, patience, and a lot of hard work," Britney says. ♣

Family Roots Farm is at 245 Hervey Lane, Wellsburg. Catch up with them at www.familyrootsfarmwv.com.

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