

Mint: ‘Mint is a really interesting specialty crop to grow’

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The Reerslevs run one of just three remaining mint distilleries in the valley in a time when, despite continued consumer demand for mint, Northwest growers grapple with deadly fungi and foreign competition.

“Mint is a really interesting specialty crop to grow,” said Reerslev. “But it’s not easy. You’ve got to have a sense of humor to grow mint.”

He grinned.

Last mint standing

The Reerslevs grow a variety of crops on 2,000 acres. In 2005, the farm grew about 600 acres of mint that yielded 60,000 pounds of mint oil. This year, the farm will grow just 150 acres of mint and produce about 15,000 pounds of oil.

The farm is scaling back its operation, said Reerslev, in the face of industry challenges.

“We’ve seen a lot of other farms stop growin’ mint altogether,” said David Reerslev, 68, John’s brother and farm co-owner. He shuffled from foot to foot on well-worn boots.

When the Reerslevs built their distillery in 1966, they did it alongside two other farms — which are no longer growing mint.

“We’re the last man standing,” said David Reerslev.

Shrinkage, expansion

Although Oregon now has fewer distilleries, the Northwest mint industry continues strong. Acreage isn’t disappearing; it’s just shifting locations from Oregon to Idaho and Washington, where the cost of production is often lower.

According to Bryan Ostlund, executive director of the Oregon Mint Commission and administrator of the Mint Industry Research Council (MIRC), the Willamette Valley alone produces some 10,000 acres of mint.

Statewide, he said, Oregon has about 50 growers and will plant about 18,000 acres of mint this year, resulting in 2 million pounds of mint oil — enough to give every person on earth 13 sticks of mint-flavored chewing gum.

“It’s big here, but we’ve recently lost some acres in Oregon,” said Ostlund.

Some Oregon growers told the Capital Press they’ve cut back mint acreage by as much as 20% in the past year.

Meanwhile, Ostlund said, acreage is swelling in neighboring states.

Idaho, he said, now nearly rivals Oregon in acres of pro-



John Reerslev, a second-generation mint grower in Junction City, Ore., plucks a sprig of young mint from a dormant field in March.

Sierra Dawn McClain/Capital Press

duction, adding more each year. And Washington has already outpaced Oregon, producing about 2.2 million pounds of oil.

Together, Ostlund estimates, the three states constitute 80% of the domestic industry.

One of the reasons mint acreage is simultaneously shrinking in Oregon but expanding elsewhere is Idaho and Washington, relatively new to the industry, have more “virgin soils” available that aren’t contaminated by verticillium wilt, mint’s arch nemesis.

‘Maybe mint’

According to Kelly Vining, horticulturalist and mint researcher at Oregon State University, verticillium wilt, caused by the fungus verticillium dahlia, causes wilting and death in mint.

Once a field is infected, it stays that way. Mint is a perennial plant typically grown in four-year rotations. Many other crops, such as strawberries and potatoes, are not themselves hurt by this strain of wilt but can act as hosts to keep it alive in the soil. Even if farmers rotate crops hoping to choke out the fungus before the next mint crop, their efforts are often in vain.

The Reerslevs primarily grow *Mentha x piperita*, or peppermint, a sterile plant propagated through root rather than seed. For each new mint crop, David Reerslev said, the family buys “clean,” or fungus-free, root stock from virgin soils in Burns, Ore.

“But we plant the clean roots in our wilty soil, and they get contaminated,” said David Reerslev.

“We like to call the fresh root stock ‘baby mint,’” added John Reerslev, casting a knowing smile at his brother. “But it’s not baby mint any-

more; it’s maybe mint.”

To combat the fungus, some growers propagate their own root stock, such as Scott Setniker, a third-generation farmer in Independence, Ore.

The fungus was introduced to Northwest soils through early farming practices when settlers crossed the continent, according to the Mint Industry Research Council.

North America’s mint industry started on the East Coast, said Ostlund, where there was a natural pathogen.

“Settlers kept looking for fresh ground,” he said, “and it progressed from east to Midwest and ultimately out to the Far West.”

Peppermint, spearmint

Some mint varieties, such as spearmint, are relatively resistant to wilt. But to limit oversupply, in 2018, the USDA created a rule to limit who can grow spearmint and in what quantity.

Spearmint and peppermint are actually very different. Because of its 40% menthol content, peppermint has a pungent smell and a cooling, refreshing taste — popularly found in toothpastes and holiday treats.

Spearmint, in contrast, contains only 0.5% menthol, resulting in a delicate scent and sweet, herbal flavors. It is often used in savory recipes such as Mediterranean lamb dishes. The demand — and, therefore, the acreage — for peppermint is far greater.

Race to the future

Growers across the Northwest, frustrated by the disease that ails their peppermint plants, say they’re excited about ongoing research to develop wilt-resistant varieties.

Vining, the OSU horticulturalist, studies genomics, or genetic mapping, of

mint, and is working to identify genes and markers for wilt resistance. Vining uses traditional plant breeding techniques rather than genetic engineering.

But she and other researchers have not yet developed a variety suitable for the market, because the relatively wilt-resistant plants so far produce low yields, poor oil and the wrong scent.

“It will take a lot of crosses,” said Vining. “We’ll just slog through until we get it right. We’re not quite there yet, but we’re getting closer to field trials, and I hope soon we’ll have something marketable.”

Mint growers, Vining said, have offered to be part of future field trials.

World of mint

Americans aren’t the first to cultivate mint.

More than 25 species of mint are grown throughout the world for many purposes.

The ancient Egyptians used the herb as a remedy for indigestion, and dried peppermint leaves have been found in pyramids dating to 1,000 B.C., according to the Museum of Egyptian Antiquities in Cairo.

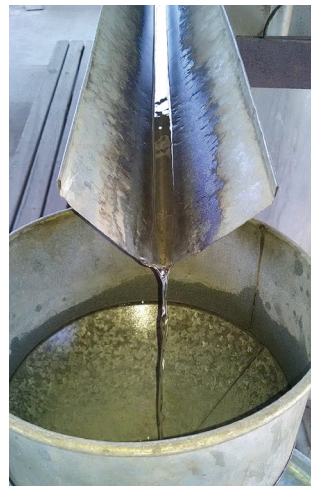
In Greek mythology, a beautiful nymph, Minthe, angered Persephone, the goddess of vegetation, who turned Minthe into a plant — from which we get the later Latin word “mentha” and the English “mint.”

Ancient Roman author Pliny commended young Romans to wear mint wreaths to “exhilarate their minds.”

The Bible records that the Pharisees paid a tenth of their mint as a tithe.

Mint appears in classic literature and plays, ranging from Chaucer to Shakespeare.

And in the Middle Ages, people used powdered mint leaves to whiten their teeth: a



John Reerslev/Reerslev Farms Inc. Mint oil during the distillation process.

tradition that has continued.

Today, according to the industry’s Research Council, 45% of mint oil is used to flavor toothpaste, mouthwash and other oral hygiene products.

Mint was, and is, global.

And so is the competition.

‘Walmart effect’

“It’s the Walmart effect,” said Ostlund of the MIRC, “globalization.”

China, Brazil and especially India have developed strong mint industries in recent decades. Researchers say these global crops, produced more cheaply than U.S. mint, have become a major source of competition for the domestic industry.

Globally produced mint hasn’t been able to entirely displace the domestic industry, because experts say U.S. oils are higher quality in scent and flavor.

“The Willamette Valley produces the highest quality mint anywhere,” said Ostlund. “But if you can’t compete price-wise, it’s all for naught.”

The harvesting and distilling processes for mint are complex and expensive.

“Mint harvest is like a mini-business in itself,” said John Reerslev.

John and his wife, Karla, have a biological son, a daughter adopted from India and five adopted from Ethiopia. When harvest time came through the years, it was “all hands on deck” — with John’s brothers David and Kenny, John’s nephews, Karla and the kids and an assortment of locals — working together, in shifts, 24 hours a day, for three weeks.

Even with a smaller operation this year, the harvesting and distilling process will still be intense and costly.

Mint growers say they work at the front of a long distribution chain: including farm laborers, drivers, dealer-handlers (there are only six

in the U.S.), flavoring house specialists in lab coats examining the oils, product manufacturers, retailers and at last, consumers.

As technology develops, domestic producers are facing a more uncertain future. Researchers say synthetic oils are gaining popularity, especially in candies and treats.

And according to Ostlund, professional flavorists are perfecting the skill of blending oils — using a cheaper Indian mint base with just enough Northwest-grown mint to create, for example, a “Willamette flavor profile,” mimicking the valley’s high-quality oil at a lower cost.

Experts say it remains to be seen whether brands move away from reliance on domestic growers, or young consumers push for more “local” and “natural” mint as they have done with other products.

Some brands have managed to maintain relationships with local farmers in the face of international industry shifts. Setniker, the mint grower, estimates Colgate-Palmolive still sources more than 60% of its mint from the Willamette Valley.

“I and my son are in a video Colgate made,” he said. “And you can even find a picture of us with Colgate toothpaste on Amazon. Our little moments of fame.”

He chuckled pleasantly.

‘Booms and busts’

Vining of OSU said there have always been “booms and busts” in the mint industry. In recent years, she said, between international competition, fungal challenges and new crop trends — like displacing mint fields with long-term hazelnut orchards — domestic mint has been pushed out of the limelight.

“But it may make a comeback,” she said. “We’ll see what happens with the research. And regardless, there will always be a niche for Northwest mint, especially Willamette Valley mint. It’s grown on family farms. And it’s an important regional tradition.”

Morning sunlight spilled into John Reerslev’s distillery, creating a kaleidoscope of golden blocks and deep shadows on the floor. He stood beside the great iron boiler built in 1944. The room smelled of peppermint.

“The baby mint are just poking out now,” said Reerslev. “And then we’ll harvest around the first of August. I was 12 when my father started raising mint. And here we are, another year.”

Water: Some farmers are enthusiastic about greater data access

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our tools are for actually managing water resources,” said Buzz Thompson, a natural resources law professor and faculty director for Stanford University’s Water in the West program. “OpenET could be revolutionary.”

Draw a line from North Dakota to Texas, and those 17 states to the west will be included in the initial project, according to Robyn Grimm, OpenET project manager for EDF. The model, Grimm said, may spread to remaining states and other countries.

OpenET will not make private data public, according to Melton of NASA. Instead, OpenET will choreograph fragments of already-public information, such as weather data sets and field boundaries, into one coherent platform.

“Water management agencies and others already have access to this type of information,” said Melton. “But because in the past it’s often been limited and expensive, not everyone who needs the data has had access to it. I think having equal access to information can lead to better decisions, especially for water management.”

Some farmers are enthusiastic about greater data access.

“Right now, we use aerial imagery and infrared technology,” said Don Cameron, vice president of Terranova Ranch in Helm, Calif. “And we pay for it. If we had another tool, it would be really helpful.”

Don Parrish, senior director of regulatory relations at the American Farm Bureau, said he predicts OpenET will cut farmers’ costs while increasing productivity and efficiency.

“Saving water saves farmers money, so they have a strong incentive to conserve,” said Parrish. “If a program like OpenET makes cents — as in dollars and cents — then make it available to



Don Cameron

farmers, move out of the way and they’ll adopt it.”

But other farmers told the Capital Press they fear the data could be used against them.

“With the data going open and public, are growers going to have environmental groups sue their pants off for perceived overuse of water?” said a Washington state viticulturist who did not wish to be identified.

The data may also be used to enforce water rights and enable water trading.

According to Thompson of Water in the West, ET data has been used for at least a decade in regulatory and legal conflicts.

“This kind of data will help police and enforce water rights,” said Thompson.

In civil cases, he said, the standard of proof is essentially “more probable than not.” So even if data accuracy is imperfect — OpenET will have a 15% margin of error, according to Melton — it can be used as case evidence.

But, said Thompson, a landowner always has other options to gather more fine-tuned data, such as hiring water consultants.

OpenET has limitations, such as monitoring in areas with cloud cover over extended periods. But no system is perfect, said Grimm of EDF, and OpenET is meant to complement rather than replace existing systems.

Other methods, such as well metering, continue to be important.

Meters measure what is being pumped or extracted, while ET reveals what is leaving the system. Both factors, Grimm said, are important for water management.

Grimm said because ET estimates

are cheaper and less time-consuming, OpenET may allow farmers to use other technologies less frequently, saving them time and money.

“I’ve talked to farmers who are eager to get their hands on this data,” said Parrish of the American Farm Bureau.

Melton said OpenET users will access data through an easily navigable web interface — with maps, zoom options, irrigation district information, water use history features and more.

The research team is working to make data available continuously, within 48 hours of measurement.

According to Tyler Erickson, developer advocate for Google Earth Engine, users can request specific reports: for example, of aggregated water use for a watershed, administrative boundary or agricultural field.

Those who want to dig deeper, he said, can access a programming database. OpenET will use optical satellite imagery with a resolution of 30 by 30 centimeters, allowing farmers to compare field to field, but not likely row to row, said Erickson.

Farmers can also create their own secure OpenET accounts in which they can submit information such as property maps that will not be shared but will increase the accuracy of their own data, said Melton.

“But we don’t want to just throw information at people,” said Robyn Grimm, OpenET project manager for EDF. “We want to contextualize the data.”

Grimm said OpenET will provide videos, manuals and in-person trainings.

“I’m optimistic OpenET will turn out to be more positive than negative,” said Parrish of the American Farm Bureau. “I know this makes some farmers feel uneasy, but overall, I think this could be a good thing for agriculture.”

Outbreak: No reliable estimates of how long the shutdown will last

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most of their crops under contract.

But farmers and others are also worried that a prolonged COVID-19-related shutdown could ultimately hit them. No reliable estimates of how long the shutdown will last in the U.S. have been offered, although officials in China and South Korea report that they have likely already seen the worst of the outbreak.

Ruddenklau, who also grows grass seed, worried that a prolonged shutdown could ultimately cause that market to nose-dive if the housing market goes into a slump.

“People might not have the income to spend on house lawns,” she said. “It’s not an essential. The grass seed market took a downturn during the last recession, and it probably will again.”

Ostlund, who is also administrator of Grass Seed USA, offered an optimistic prediction for that commodity.

“I expect the market for seed for forage will still be good,” he said. “And if golf courses stay open in the next few months, that’s still a significant source of income for grass seed suppliers.”

Ruddenklau said farm supply companies will still be busy.

“As farmers, we need our suppliers,” she said.

Freeman of Marion Ag Products said he anticipates businesses connected to farming will stay open: feed stores, equipment providers, suppliers of seed and fertilizer.

“I think we’re really fortunate that, given this bad situation, our

organization still has the ability to give customers the tools they need to grow their crops,” he said. “I just hope capital will remain available to farmers. We’re OK now, but if this goes on for months, everything could change.”

He and others predicted that a prolonged shutdown in the general economy could impact everyone, including farmers.

“Looking down the road, I think this will hurt a lot of sectors of agriculture,” Freeman said.

Although agricultural businesses are staying open, said Dave Dillon, executive vice president of the Oregon Farm Bureau, the long-term impact of the virus will likely hit the farm economy hard.

“At least agriculture is still open,” he said. “But there’s a huge distinction between continuing to operate versus operating profitably.”

Dillon also said niche sectors of agriculture will likely be impacted: agritourism, farmers markets, on-farm direct sales, flower growers and farms selling primarily to restaurants.

But he also said that if anyone can get through the challenges ahead, farmers can.

He recalled that several dozen Oregon farms were recently honored as sesquicentennial farms for staying in business 150 years.

“They’ve seen two world wars, global depression, 18 percent interest rates and more,” he said. “There’s a perseverance and ingenuity in agricultural people to work through hard times like this. But we might not come out the same.”