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Tree: Nordmann, Turkish firs have gained foothold in Oregon

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Brown was captivated by the "outstanding foliage" of Nordmann and Turkish firs, as well as their resilience. Over time, the species have proven themselves among farmers, he said. "They're a very grower-friendly tree."

As for the newcomer, the Trojan fir, the jury is still out regarding its promise as a commercially viable species, Brown said. "A lot of time, there's a lot of hyperbole with something new. Only time will tell."

Breeding and risk assessment are long-term processes in the Christmas tree industry, as it takes most of a decade for a tree to become harvestable or to produce

Breeding better trees

The Westwinds Farm near Dallas, Ore., was founded by Ken Brown and is now operated by his son, Bryan. Its seed orchard is now largely focused on improving Nordmann and Turkish firs.

"What we're trying to do is choose the best genetics and cross them," Bryan Brown said. "A lot of the time it's just throwing things against the wall, but sometimes that's how it happens in the real world."

The farmers are confident betting on the future of these species due to their combination of aesthetic beauty and agronomic hardiness.

Noble firs are also championed for their visual appeal but many farmers can't grow them due to their susceptibility to root rot and need for a 1,000-foot-plus elevation.

"I think the Nordmann and the Turkish are going to be a growing part of the marketplace over time," Bryan Brown said, noting that they're also desirable for insect resistance. "We've not needed to spray since we've had the Turkish and the Nordmann."

Within the America's 172,000-acre Christmas tree industry, which generates more than \$350 million in annual sales, the Black Sea species are still relatively minor players.

Nordmann firs are grown on about 7,000 acres and generate \$15 million in sales, while production of Turkish and Trojan firs isn't specified in the USDA's 2019 Census of Horticultural Specialties.

However, Nordmann and Turkish firs have gained a solid foothold in Oregon, the biggest Christmas tree-growing state in the nation.

More than 250,000 trees of the two species worth \$9 million were sold by Oregon farmers last year.

The two species, which



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Kathy LeCompte, owner of Brooks Tree Farm in Salem, Ore.

are grouped together in a 2020 USDA report on Oregon's industry, are in third place behind Noble firs and Douglas firs.

They are a distant third, though.

About 1.7 million Noble fir trees worth \$65 million were sold last year, while Douglas firs generated sales of 1.4 million trees and \$29 million.

Nordmann and Turkish firs still have a lot of catching up to do, but growers say they've got momentum behind them while Noble and Douglas firs face headwinds.

Changing the mix

Noble Mountain Tree Farm, a major grower near Salem, Ore., historically devoted about 6% of its production to Nordmann and Turkish firs, compared to 50% for Noble firs and 40% for Douglas firs.

Now, the share of Nordmann and Turkish firs has risen to about 30% while Douglas firs have slid to 20% and Noble firs have remained stable, said Bob Schaefer, the company's general manager.

A major factor in the change is the "keepability" of Nordmann and Turkish firs, which are easier for people to maintain after harvest, he said. That's particularly crucial for trees that are exported to warm climates.

"They hold their needles like iron. It's a very consumfer said. "You can abuse it as a consumer and not have to worry about it losing all its needles. Most consumers don't do a very good job of caring for the tree once it's in the house."

Demand for Nordmann and Turkish firs is rising year over year among buyers, whose demand for Douglas firs is eroding, Schaefer said. Meanwhile, Christmas tree acreage is feeling the squeeze from expanding hazelnut production in

"The popularity of Douglas fir is continuing to diminish, so what are we going to replace it with?" he said.

That's not to say the native tree should be counted out yet.

Compared to Douglas firs, the Black Sea species don't grow as quickly - which means farmers must wait longer for a return on their investment. The three newer cultivars also don't emit the coniferous scent that many consumers associate with the holidays

"It's kind of a deal breaker for people who want that traditional Christmas smell," said Kristi Scholz-O'Leary of the Snowshoe Evergreen farm in Orting, Wash.

Another potential hin-drance is the tendency of Nordmann and Turkish firs to break bud early, making the new shoots vulnerable to frost, said Dan Kintigh of Kintigh's Mountain Home Ranch near Springfield, Ore.

'That's a disaster out here because the new growth will freeze and make a mess out of the tree," Kintigh said, adding that he's mitigated the problem by breeding Turkish firs to break bud later.

Since some consumers seem "stuck" on Noble firs, the staple species isn't going anywhere soon, he said. "If you've got really good Noble ground, you're probably going to keep growing Noble."

Even so, production of Nordmann and Turkish firs will likely overtake Noble firs next year at the Brooks Tree Farm, a conifer nursery near Salem, said owner Kathy LeCompte.

A major reason for the



Mateusz Perkowski/Capital Press A tray of Trojan fir seedlings. The species is the latest addition to several types of Black Sea trees which have gained popularity among growers and consumers.

shift is that Noble firs need a higher elevation, which isn't an option for many farmers, she said. The tree species from around the Black Sea are more tolerant of heat and soil moisture.

"We needed something that grew in a wider range," LeCompte said.

The nursery has also begun experimenting with Trojan firs. While LeCompte said she has "high hopes" for the species, it's not certain to gain the same level of acceptable as the other Black Sea

"Do growers really want a third species that's very similar?" she asked. "Does it have some features the others don't?"

There was once a great deal of enthusiasm for a tree variety known as Canaan, which was a cross between Fraser and Balsam firs, LeCompte said. However, the two species crossed in such a narrow geographic range that seed production was insufficient for commercial production.

"There have been other trees that were new and inter-



the Christmas tree industry.

Mateusz Perkowski/Capital Press

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Cal Landgren, Oregon State University Extension Christmas tree specialist, examines a tree at the university's seed orchard in Aurora, Ore. The university established the orchard to make improved seed available to farmers.

Tyler Heater of Silver Mountain Christmas Trees in Sub-

limity, Ore., cuts down a 30-foot Nordmann fir that

was donated to Oregon State University. The tree was meant to memorialize OSU's longtime cooperation with

esting that never panned out," she said.

Trojan tests

Researchers from OSU and other universities collected Trojan fir seeds in Turkey a decade ago and have since been testing their progeny. High-quality specimens were grafted onto rootstock at OSU's seed orchard in Aurora, Ore., where they will be used to produce seed once they've matured enough.

Landgren, OSU Extension's Christmas tree specialist, said he was quickly impressed with the species.

"It turned out it was one of the fastest-growing exotic trees we've tested," Landgren said. "We haven't seen any downside — except deer like to eat them."

His appreciation for Trojan firs deepened after the "heat dome" that brought temperatures of 116 degrees Fahrenheit to Oregon's Willamette Valley in June.

"These trees have hardly seen any damage from the heat dome," Landgren said, adding that some Noble firs at the seed orchard were visibly harmed.

Growers view the Black

Sea species as a niche, but that may not always be the case, he said. "If we keep having heat domes, that may be different."

Judy Kowalski, an OSU bioscience researcher, noted that Trojan firs are so durable that one even survived being backed over by an excavator at the seed orchard.

"It pretty much crushed it and it's doing OK," she said. "They're tough."

Snowshoe Evergreen is growing 3,500 Trojan firs as part of an experiment but hasn't yet seen the trees distinguish themselves from the other Black Sea cultivars, said Ken Scholz, the company's founder.

"It's hard for us to know the difference between the three species," he said. "They're so closely related, it's difficult for even a trained eye to tell."

The experiment is nonetheless worthwhile, since finding trees that are broadly adaptable is a worthwhile goal for the industry, said Kristi Scholz-O'Leary, his daughter.

"It just means more Christmas trees for more people," she said.

Reindeer: 'I wish people understood more about the species'

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to Northern Fennoscandia Northern Finland, Sweden, Norway and Northwest Russia — circa 800 A.D. For many cultures, reindeer have served as an important source of meat, hide and "draught" work, meaning pulling carts or sleighs.

Today, the semi-nomadic Dukha people of northern Mongolia still rely on domesticated reindeer for milk, leather, transportation and, occasionally, meat.

So, how did a herd of reindeer end up in Oregon? In the 1990s, Murdoch and her late husband read an article on reindeer. Delighted by the species, they started a farm in 1999.

The couple began by rescuing two reindeer and later, through breeders, added others.

Raising reindeer was learning curve. Murdoch worked with Purina to develop a special feed and Oregon State University veterinarians to understand the species' health needs.

"I wish people understood more about the species," said Murdoch.

Both male and female reindeer have velvety antlers, which they shed and regrow annually.

Each reindeer has its own personality. Dancer, one of Murdoch's reindeer, has even learned to play "soccer." Murdoch kicks the ball; Dancer returns it with her antlers.

Murdoch has turned the operation into a business. Throughout most of the year, the reindeer wander the barn or hillsides. But during Christmastime, they're busy travelers. Murdoch takes the reindeer to Christmas festivals, educational events and retail stories, including Coastal Farm & Ranch Supply.

According to Dennehy of ODFW, Murdoch's reindeer must be transported under strict requirements, ensuring "safe and humane treatment."

Nevertheless, the farm has faced opposition from PETA, an animal rights group. Due to PETA's recent efforts to shut down the farm, Murdoch no longer publishes her address.

Murdoch plans to continue growing her herd. Since Oregon no longer allows importation of live cervids, Murdoch is working with a veterinarian to artificially inseminate her females.

"I hope we get another generation," she said.



Cindy Murdoch, center, at a Christmas display with the reindeer at the Woodburn, Ore., Coastal Farm & Ranch.

Chestnuts: Trees should remain productive for another 100 or more years

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Then chestnut blight, a lethal fungus infection from Asia, hit around 1900, wiping out nearly the entire population. Although the Northwest has been blightfree since the 1930s, the industry collapsed.

The chestnut industry continued strong in Europe and Asia.

In the 1990s, with USDA grant funding, Oregon State University worked to re-in-

vigorate America's industry perfect timing for Porter, who benefited from OSU's research.

But Porter didn't realize what a challenge growing chestnuts would be.

"I guess I was very naive about it," she said.

According to chestnut trees don't begin to bear nuts until four or five years old, and Porter said the trees didn't reach peak production until year 12. The trees should remain productive for another 100 or more years. The trees don't drop their

chestnuts all at once and the chestnuts must be gathered shortly after dropping, meaning harvest can last from September through mid-November.

"The trees are very individualistic," said Porter, walking among her 173 trees. "I sort of know them all now, but they still surprise me sometimes."

The chestnuts are mul-

tilayered: milky kernels inside brown hulls buried in spiny burrs.

Because kernels have a moisture content upward of 49%, according to the University of Michigan, they must be stored in a cooler.

Annually, Porter sells 3 to 5 tons of large chestnuts, including to the Corvallis Farmers Market and retail stores. She sells at \$3.50 per pound wholesale and \$6.50 per pound direct-to-consumer.

The smaller chestnuts she feeds to her livestock. She sells her pigs as "chestnut-finished pork," a finishing process that sweetens the meat.

Chestnuts, Porter said, mildly sweet and nutty, can be eaten many ways: with pot roast, buttered and baked with rosemary, ground into flour, coated in brandy and powdered sugar, dipped in rum and chocolate or plain-roasted.

"There's something about them that's very endearing," said Porter. Though the work has been hard, Porter said she's

glad she did it. "If nothing more, it's a conversational piece: 'You do what?"

niece

nephew are interested in carrying the chestnut business forward, so Porter has a succession plan to pass on the farm, keeping Oregon's industry

Porter's