People & Places

Father, son take on capturing carbon one tree at a time

Capital Press

LONGVIEW, Wash. Trees take carbon dioxide from the atmosphere, and that has inspired Norm Dick to work with conservation districts and rural landowners to plant trees.

Spending his own money, Dick, a 65-year-old retired attorney, buys and gives away fir trees. In two years, he has organized the planting of 18,107 trees in southwest Washington.

He has ambitions to plant many more. Aided by his son Larson, Dick started the Carbon Capture Foundation. As nonprofits go, it's a seedling.

We're still trying to get our feet on the ground and figure out what we can do," he said. "We want to do more than a feel-good thing."

Father and son share concerns about climate change and acknowledge that to make a difference they will have to ramp up fundraising, organizing and hope other tree-planting groups around the world will, too.

The U.S. Forest Service estimates there are 1.4 trillion trees in forests in the Lower 48, according to a study published last fall. Forests cover about one-third of the country and uptake the equivalent of 14% of the carbon dioxide emitted by the U.S. economy.

The study found millions of acres were "poorly stocked." If those acres were filled in with trees, forests could take up about 20% of carbon emissions. "There are opportunities on existing forestland to increase the contribution of for-



Don Jenkins/Capital Press

Norm Dick, left, with the help of his son, Larson, right, founded the Carbon Capture Foundation to donate trees to landowners.

ests to climate change mitigation," the study concluded.

The U.S. emitted 6.5 billion metric tons of carbon in 2019, according to the Environmental Protection Agency. More than a decade ago, the Congressional Research Service looked at what it would take to offset 1 billion metric tons of carbon each year.

The report concluded that it would mean planting trees on up to about a quarter of the land now used for crops, pastures and rangeland.

Norm and Larson have their eyes on vacant pastures now growing weeds.

"Our real target is an area where the land can be improved and that would not be planted if not for us helping plant the trees," Norm said.

The inspiration for this project came on a hunting trip in the fall of 2019. Norm and Larson were in the woods and saw a sign marking a tree farm planted by schoolchildren decades ago.

Larson, 28, posted a photo on social media. The reaction was positive. People liked the idea of planting trees to fight climate change. "It inspired us to think we can do something," said Larson, a University of Washington graduate.

Norm leaped to the task. He ordered 10,400 fir trees from the state Department of Natural Resources nursery in Olympia, paying 38 to 68 cents a tree.

"When we bought them, we didn't know what we would do with them," he said. "It was pretty rugged figuring out where the 10,000 trees were going to go." Some trees went to indi-

vidual landowners, including a lot of teachers. Others were distributed through conservation districts.

"We found good homes for them, but it was a struggle," Norm said.

For the second year, Norm contacted agricultural high school teachers to see if their schools would participate in planting trees. The reaction was good at first, Norm said, but COVID-19 shut down

What looked like it would



Western Innovator

NORM DICK

Age: 65

Occupation: Founder of Carbon Capture Foundation; retired attorney

Education: Lewis and Clark Law School, Port-

be a deluge of interest, just dried up," he said.

Still, more trees went into the ground. Norm donated trees to plant along a creek that runs through a ranch in Cowlitz County. The project was under the Volunteer Stewardship Program, a state-approved way for agriculture to meet its obligations to protect the land under the Growth Management Act.

With the months for planting fir trees past, Norm and Larson are making plans to scale up.

"We know the planting of trees needs to accelerate,' Larson said. "The hope is all groups combined will scale to those numbers."

Even at a small scale, it's been hard to find people to plant trees, Norm said.

"We're still a half-inch deep in this to make it work," he said. "It wouldn't seem so hard to give stuff away."

New treatment could make honey bees immune to some pesticides

By SIERRA DAWN McCLAIN **Capital Press**

ITHACA, N.Y. — A new technology could make some bee species immune to many pesticides, which currently cause beekeepers to lose about a third of hives annually

Studies show in 98% of hives nationwide, wax and pollen are contaminated with an average of six pesticides, which can kill bees or reduce bee health.

The solution: a microparticle sponge that, when fed to honey bees in sugar water or pollen patties, could give them immunity to pesticides.

The discovery has stirred widespread excitement, but critics say the invention could have unintended negative consequences, especially for wild bees.

James Webb, 27, a recent biological and environmental engineering graduate from Cornell University, came up with the idea when he was a student and co-authored a



Sierra Dawn McClain/Capital Press A new micro-sponge protects bees from insecticides.

study about his findings in the journal Nature Food.

"Quite simply, I hope this means less hive losses and more bees," said Webb.

Originally from the United Kingdom, Webb spoke with a British accent.

The work began with an idea. Webb said most of the research he saw about bees highlighted problems but didn't offer solutions. He

wanted change.

His first idea was to use a specific enzyme to break down harmful pesticides bees consume. Webb brought his idea to Minglin Ma, associate professor of biomaterials at Cornell, who would become his adviser. Other researchers ioined the team.

The researchers developed a tiny, pollen-sized microparticle filled with enzymes to detoxify a group of pesticides organophosphates, accounting for about a third of pesticides on the market.

The team mixed the microparticles with pollen patties or sugar water, then fed them to microcolonies of bumble bees. Inside the bee's digestive system, the enzymes broke down poison.

The trials were successful. Of the bees exposed to organophosphates, 100% of those fed the antidote survived, while unprotected bees

But Webb wanted to find an easier method, one that could work across all pesticide classes. He founded company, Beemmunity, and invented an improved

Instead of filling microparticles with enzymes, he now creates tiny micro-sponges made from insect proteins and special absorbent oils and feeds them to bees in pollen patties or sugar water. Once in the digestive tract, the sponges absorb poisons that the bees eventually excrete naturally. This method can be used

across many pesticide classes.

This summer, Beemmunity is working on a field study with about 220 honey bee hives run by beekeepers across the Eastern Seaboard. If successful, Webb plans to launch commercial products by February of 2022.

Ma, Webb's adviser, said in a statement the discovery could "contribute to the protection of managed pollinators."

But what about wild and native pollinators?

Dave Hunter, owner of Crown Bees, a Washington company selling mason and leafcutter bees, said he thinks the discovery is "bad news" because the products likely can't be fed to most of North America's 4,000 wild species.

Hunter said he fears the discovery could inadvertently 'give life" to extended use of organophosphates.

Grazing 'crash course' spotlights dryland ranching

By MATTHEW WEAVER Capital Press

HAUSER, Idaho — Dryland ranchers got a "crash course" in managing grazing lands to increase productivity during a recent University of Idaho Extension workshop.

Drought years tend to generate a lot of interest, said Kate Painter, UI Extension educator, based in Bonners Ferry,

"Right now, people are selling their cattle early, feed prices are going up — they just know it's going to be a really tough year," she said.

The regenerative ranching course is part of the movement to rejuvenate soil health and pasture organic matter, Painter said.

The program focuses on management-intensive grazing, moving the livestock each day to keep the land at its optimum growth stage.

"If you allow grass to be grazed past about 50% of its natural height, the roots start to become smaller and smaller," Painter said. "But if you take half, leave half, then the roots are never damaged. The grass will grow much better and it will be much more resilient to whatever the weather might be throwing at us."

For years in September, a popular four-day grazing academy has been offered for irrigated pastures in Eastern

Painter wanted to offer the program in Northern Idaho, where much of the land is rain-fed, not suitable for crops but perfect for pasture.

"If you don't manage it well, especially with the droughty weather we keep experiencing more and more, it's not going to keep working for us," she said.

They developed a two-day

program, in a classroom in the morning and out in the field the rest of the day.

"It was kind of a crash course compared to the fourday one," Painter said.

About 22 ranchers participated, she said. It took place on the Lazy JM Ranch in Hauser, Idaho, where the ranchers could compare the "lush" pastures, a "dramatic" difference compared to the surrounding countryside, Painter said.

"You could see it was going to be probably triple the productivity," Painter said. Painter said the techniques

will prove useful for younger ranchers looking to get started in the industry.

"It will help them be able to expand their cattle herd, make more money, whatever their goals are, and hopefully be able to invest in land," she said. "Be more profitable and also really more resilient operation."

CALENDAR

Submit upcoming ag-related events on www.capitalpress.com or by email to newsroom@capitalpress.com.

FRIDAY-SATURDAY JULY 9-10 100th Annual Idaho Ram Sale: Gooding County Fairgrounds,

Gooding, Idaho. Lamb viewing and a lamb barbecue dinner will start at 6 p.m. July 9. The sale begins at 10:30 a.m. July 10. Website: www.

FRIDAY-SUNDAY JULY 9-11 Marion County Fair: 10 a.m. Oregon State Fair and Expo Center, 2330 17th St. NE, Salem, Ore. We are planning on the best live fair possible. For more details go to our website: https://marioncountyfair.net/

MONDAY, JULY 12

Applied Pathogen Environmental Monitoring (live online): Foodborne illnesses and recalls can put a company out of business. A pathogen environmental monitoring (PEM) program is one way of mitigating that risk and ensuring a strong sanitation program. In this course, participants will understand how to create a successful environmental monitoring program. Participants will learn how to implement, manage, and continually improve the PEM program to mitigate

https://bit.ly/3xt9FTM THURSDAY-SATURDAY

inherent food safety risks. The class repeats July 26. Cost: \$495 Contact:

Bill Mullane, 208-426-2266, williammullane@techhelp.org Website:

JULY 15-17 Linn County Fair: 11 a.m. Linn County Fair & Expo Center, 3700 Knox Butte Road E, Albany, Ore. Giant elephant ears, fluffy colorful clouds of cotton candy, live music nightly, carnival rides from mild to wild and of course, cattle, pigs and chickens galore will fill the Linn County Fair & Expo Center July 15-17 as the Linn County Fair returns live. Website: https://linncountyfair.com/

SATURDAY, JULY 17

Pacific Northwest Christmas Tree Association Summer Farm Tour: 7:30 a.m.-3 p.m. The farm tour will be held at Furrow Farm and Windy Acres Tree Farm. For more information, visit our website at https://bit.ly/3gAXIVy or contact Kari Puffer, 503-364-2942, pnwchrist-



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Index

Livestock

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