And they like to eat weeds.

The Canadays' business, Living Systems Land Management, stations goats and sheep at various locations in California to help landowners get rid of weeds without using pesticides.

"Since goats prefer weeds over grasses they will always seek weeds and consume them first," Jan Canaday said. "Managed goat herds snap off and consume all the flower heads, then pick off the leaves, leaving a bare stock. Because the flower is eliminated immediately, it cannot go to seed, and without leaves it cannot photosynthesize and build a root system."

They even went on the "Shark Tank" television show to talk about their business.

"Shark Tank' was fun," Jan said. "The sharks were all very personable and although they didn't want to invest, they spoke with us for over an hour."

She said the funniest moment was when their goat, Pumpkin, walked over to one of the "sharks," Lori Greiner, and took a drink from her water glass.

In business since 2011, the company uses the advertising slogan "Rent-a-Goat." The Fresno County operation has approximately 4,500 goats and sheep. Both sheep and goats are used for grazing, depending on the job.

The goats are a Boer-Spanish cross and the sheep are White Dorper.

The Canadays also train



Goats go to work on open space to rid it of weeds and underbrush.





Rent-a-Goat

Mike Canaday runs a company that puts goats and sheep to work eating weeds and other vegetation.

border collies to help with the livestock handling.

From August through March they lease around 30,000 acres for off-season grazing.

April through July is the peak "work" season for the goats and sheep.

The grazing herd has worked from Santa Rosa north of San Francisco to Agoura Hills 430 miles away in Los Angeles County. They do mostly doing weed abatement for fire control. Business has increased due to the



Rent-a-Goat Jan Canaday with a future

"employee." ongoing drought, as landowners want to get rid of any

weeds and brush that could provide fuel to a wildfire. "We run 450 goats or sheep in each group," she

said. "When it comes to eating unwanted plants and invasive weeds goats don't kid around." They eat thorns, poison ivy, kudzu and thistle, and they fertilize the ground while working, she said. "People would rather

have a group of goats or sheep and one herder versus multiple people using mowers or weed eaters," Canady said. "The goats or sheep are



Innovator MIKE AND JAN

CANADAY

Hometown: Coalinga,

Occupation: Owners of Living Systems Land Management, Rent-A-Goat. They also train herding dogs.

Quote: "Grazing is needed more than ever to get the vegetation that has been ignored for years back in control without chemical means."

able to get into areas that are difficult for people to traverse and are a safer way to remove the vegetation to save homes and businesses from fires," she said.

A herder, who is an H-2A foreign guestworker, stays with each group of animals to put up fencing and take care of them.

If something unforeseen happens, such as a car running through a fence, someone cutting the fence or dogs chasing the stock, the herders are on hand to take care of the problem.

The guestworkers' place in the operation raises a thorny question and a challenge to the goat and sheep industry and labor-intensive agriculture in general.

Wages for most H-2A foreign guestworkers are ever-increasing, she said. The increases in turn have an adverse effect on the temporary non-immigrant workers. U.S. farmers can't afford to hire as many guestworkers, even though most U.S. workers aren't interested in the jobs.

'No consideration is being made to the fact that we are bringing in these workers legally and are required to provide state inspected housing, food, utilities and transportation to our employees at no cost to them," she said.

The workers are coming here to provide a better life for their families in their home countries, Jan said. Yet federal policy continually makes it more difficult to hire them.

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Pond scum's potential: How microalgae could benefit agriculture answered is whether it's eco-

By SIERRA DAWN MCCLAIN **Capital Press**

Researchers are exploring an unusual tool to help farmers improve soil health: microaigae.

To the human eye, microalgae often appear as "pond scum" or floating green mats of slime. But there may be more to it than meets the eye. Researchers say microalgae are "under-explored resources" — both in diversity and potential applications. This summer, a team of

scientists from the University of Minnesota and USDA's Agricultural Research Service teamed up to learn more about a type of microalgae called cyanobacteria.

The study concluded microalgae could benefit agriculture through potential products, including as renewable fuel sources, specialty



Adriana

and natural fertilizers.

Alvarez culture that have not been

Engineering. For the study, the researchers focused a nitrogen-fixing

strain 1611. Previous studies

chemicals "There's a high poten-

tial to disproducts and new ways to benefit agri-

seen yet. Also, the potential to supply nutrients and potentially replace chemical fertilizers is exciting," said Adriana Alvarez, the study's lead researcher with the university's Department of Bioproducts and Biosystems

cyanobacterium known as Anabaena cylindrica UTEX

of microalgae in agriculture, completed in the 1970s through early 2000s, had

focused mostly on using microalgae to fertilize rice crops or arid regions. Little research had yet been done on microalgae's potential for boosting soil health in nutrient-rich, arable soils. That's precisely what this new study

explored. The study had three main components: studying cyanobacteria's effects on soil structure and nutrient dynamics, simulated rainfall and other water events and mineralization.

The researchers made

several discoveries. First, they found that soils inoculated with cyanobacteria had more soluble nitrogen and phosphorus than untreated control soils. That means cyanobacteria, said Alvarez, may be useful in creating fertilizer. Cyanobacteria-based fertilizers, she said, could potentially replace or partially replace standard nitrogen fertilizers.

The second finding was that soils inoculated with cyanobacteria contained more soluble organic carbon. That translates into potentially higher levels of beneficial soil microorganisms promoting plant health and productivity.

This could prove valuable, Alvarez said, considering "soils are losing carbon at a high rate."

The third finding was that cyanobacteria-inoculated soils had more large aggregates — clumps of particles — in the soil that held together better in water, which could help slow erosion.

These findings add up to one conclusion: Cyanobacteria can improve soil health.

There's still work to be done, however, before microalgae move to the mass market.

The first major research question that still needs to be nomically feasible to scale up production and harvest of microalgae. Can microalgae be cultivated on a large scale in treated wastewater, for example? said further Alvarez

research is also needed related to safety. Some strains of cyanobacteria produce toxins. Alvarez said she would like to see more research into cyanotoxins to make sure there are no dangers in farmers using

Additionally, Alvarez said that because multiple strains of cyanobacteria exist, it will be important for future research to explore how specific strains interact with particular soil types.

Despite knowledge gaps, Alvarez said she's hopeful about the possibilities.

"There are many different kinds of products that could be developed," she said.

Spokane Conservation District celebrates 80th birthday in new location

By MATTHEW WEAVER Capital Press

The Spokane Conservation District will host its 80th birthday celebration from 10 a.m. to 4 p.m. on Sept. 25 during an open house in new digs.

Festivities include seed-saving class led by the district's Vets on the Farm program, children's activities, science booths, a farmers market, an opportunity to join

Submit upcoming ag-related

THROUGH SEPT. 26

Washington State Fair: Wash-

ington State Fair Events Center, 110

9th Ave. SW, Puyallup, Wash. Open

and Sept. 8. Website: https://www.

Labor Day weekend. Closed Tuesdays

THROUGH SEPT. 17

vention: Riverside Hotel, Boise. Pre-

sentations and workshops will focus

on innovation and elevating the

68th National Reg Angus Con-

events on www.capitalpress.com

or by email to newsroom@capital-

press.com

thefair.com/

the Friends of the Quarry volunteer group and a tour of the

new building. The district moved in April from its old location near the Spokane County Fairgrounds to the new building at 4422 E.

8th Ave. in Spokane Valley. "We look forward to this securing our ability to provide the resources and technical services that we do for the next 80 years," Vicki Carter, district director, said of the

The old building belongs to Spokane County. At 9,000 square feet, it was too small.

"We were out of room, quite frankly," Carter said. "Both in terms of interior space for our staffing needs and exterior space in terms of where we were having to keep equipment. We had our farming equipment stored all over the county because we

didn't have any space there." The new building is 12,500 square feet, Carter said. The district purchased the land for \$1.2 million in 2017 and secured a \$4.2 million loan for the new building.

A 7,000-square-foot building already on the property has been rented out.

Construction also begin shortly on a 15,000-square-foot building as part of a public/private partnership using a \$4.2 million low-interest 20-year loan from the state Department of Commerce's Community Economic Revitalization Board.

Half of that building will be occupied by Intrinium, a private information technology and security solutions company, and the other half will be leased out. Intrinium contributed \$750,000 for its portion of the loan, Carter said.

"We're building this whole thing out to be a campus," Carter said. "We're really excited about that."

OSU Extension's Seed and

CALENDAR

heart of our food system. And yet, the barriers that they face are staggering, especially for marginalized growers. From finding and affording land to keeping it productive and resilient in ever. That's why Washington Farmland Trust and Viva Farms are teama virtual benefit concert to support a resilient, equitable future for farming. Join us for an evening of inspiration, music, and community as we aim to raise \$330,000 for local farms. Featured artists include The Decemberists, True Loves, Black Belt Eagle Scout,

Whitney Mongé, and Sera Cahoone. Cost: \$10 Website: https://wafarmlandtrust.org/event/love-the-land/

of the Public Lands Council Board of Directors and Executive Committee, ing on Tuesday, Sept. 28. While we originally planned to see you in Seaside, Ore., due to increased COVID-19 cases, we have made the difficult to a virtual format. Website: https:// bit.ly/3sR4NH0

(online): 8:30 a.m. Agenda: a look at Oregon Wheat Commission activities from Amanda Hoey, chief executive officer for the Oregon Wheat Commission and the Oregon Wheat Growers League; winter and spring wheat variety recommendations from OSU Extension cereal scientist and assistant professor Ryan Graebner; and a report on best practices for strong yields and pest management in wheat from OSU field crops agent Nicole Anderson. The session is free but you must register to get the credit. Registration: https://beav.

breed. Website: http://redangus.org cert (virtual): Local farmers are at the **TUESDAY, SEPT. 21**

18th Annual Oregon Farm **Bureau Classic Golf Tournament:**

8 a.m. OGA Golf Course 2850 Hazelnut Drive, Woodburn, Ore. Join Farm Bureau members and supporters of Oregon agriculture for a fun day of scramble-format golf. Help raise funds for OFB's Political Action Committee, which supports candidates and ballot initiatives that are good for Oregon's ag community. Contact: tiffany@oregonfb.org

WEDNESDAY SEPT. 22 Love the Land Benefit Conthe face of climate change, local farmers need our support now more than ing up for the second year in a row on

TUESDAY SEPT. 28 Public Lands Council 53rd Annual Meeting (online): On behalf

we invite you to attend the 2021 Public Lands Council Virtual Annual Meetdecision to move the annual meeting

Cereal Crop Production meeting