

People & Places

Sensors ‘sniff’ plant diseases

By **MATTHEW WEAVER**
Capital Press

PULLMAN, Wash. — If potato farmers worry about storage losses, they might want to call “Rotbusters.”

That’s the name Sindhuja Sankaran uses to explain her work using sensors to detect storage diseases like pythium and soft rot at early stages, even before their symptoms become visible.

Sankaran is an associate professor in the Washington State University Department of Biological Systems Engineering.

She says the sensors “sniff” differences in potatoes that a disease emits. For example, a farmer might use a portable sensor to scan different areas of his potato storage. If the sensor detects a certain marker compound produced by rot or another disease, it triggers an alarm. That allows farmers to address the problem before it grows.

The stakes are large. Every year storage diseases can damage up to 6% of the potato crop, according to WSU researchers.

The sniffer system can be used in manual or automatic mode.

Sankaran is now looking for processors to field-test the sensors.

As part of the project, Sankaran plans to inoculate potatoes in a storage facility to determine how sensitive the sensor is.

“The goal is a threshold much less than our human nose,” she said. “Maybe if we can know early enough, we can stop the spread of the infection.”

The special olfactory sensors can “sniff” differences more quantitatively,



Matthew Weaver/Capital Press

Sindhuja Sankaran, a Washington State University researcher, talks about her work using sensors to “sniff” differences in plants July 22 in her lab.



Matthew Weaver/Capital Press

Sindhuja Sankaran, an associate professor in agricultural automation engineering at Washington State University, second from left, stands with her team of agricultural automation engineering graduate students. For left are Worsit Sangjan; Sankaran; Afef Marzougi; Changyuan Zhang and Milton Valencia.

enabling farmers to make early decisions on how to handle the problem.

Sankaran also uses the sensors to help measure qualities not visible to the human eye, such as disease resistance. Her team studies whether a potato releases certain compounds as a way to determine its disease resistance.

Sankaran and her students are incorporating the sensor systems to create reliable applications that will help farmers monitor their

crops and storage facilities.

“Any sensor can give you a bunch of numbers,” she said. “We just want to make sure the numbers make sense and provide some useful information that can assist in our decisions.”

Sankaran’s research also includes potato nematode damage.

Use of such technology is becoming more common, Sankaran said.

She joined WSU in June 2013. The position at WSU was one of the first in phe-

nomics, the study of the interaction of genes and the environment.

Sankaran said she was excited about the wide diversity of crops in the state. She works on wheat, legumes, tree fruits, grapes, potatoes, onions and forage crops.

Sankaran also wants to adapt existing tools to help growers, said Mark Pavek, WSU potato specialist.

Sankaran’s work is “the next step in a lot of things that we do,” Pavek said.

“Once the tools are avail-



Western Innovator

SINDHUJA SANKARAN

Age: 39

Born: Kumbakonam, India.

Raised: Nagpur and Chennai, India.

Current location: Pullman, Wash.

Title: Associate professor

Education: Bachelor’s degree in zoology, University of Madras; master’s degree in environmental science, Anna University; master’s degree in environmental engineering, Iowa State University; Ph.D. in agricultural and biosystems engineering, North Dakota State University.

Family: Husband Lav Khot; son Madhav, 8; daughter Mukta, 3.

Website: <https://labs.wsu.edu/sankaran-phemonics/>



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Index

Dairy 9
Markets 12
Opinion 6

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Rodeo’s 100th celebration draws record crowds

By **LEE JUILLERAT**
For the Capital Press

LAKEVIEW, Ore. — It’s back to normal in Lakeview after a weekend of capacity crowds at the Lake County Round-Up and Fair.

Record crowds attended the rodeo, destruction derby and concert while streams of people with Lakeview connections gathered for family reunions and lined downtown streets for Monday morning’s parade that featured more than 100 horses, most of them carrying past and present Lake County Round-Up Royalty.

The occasion for the celebrating was the 100th annual Lake County Round-Up. While most communities throughout the Pacific Northwest have hosted rodeos, Lakeview’s two-day Round-Up on Sept. 1-2 was the 100th consecutive.

Despite some ups and downs over the years, Lakeview, a town of about 2,300 people and Lake County with less than 8,000 people, have been able to keep the rodeo going. The Labor Day Weekend’s rodeo and fair were no exception.

“It was a win-win deal,” said John Flynn, a third generation Lake County rancher who is a past parade grand marshal and past president of the Round-Up Association. “The attendance for all



Lee Juillerat/For the Capital Press

Queens and princesses from the 1950s rode aboard a horse-driven float in the Sept. 2 parade marking the centennial of the Lake County, Ore., Round-Up.

the activities was fantastic.”

As usual, crowds lined downtown Lakeview streets to cheer on parade entrants, including more than a hundred former Round-Up Queens and Princesses and a cavalcade of past Round-Up presidents and grand marshals. Some families rode on floats. Young kids traveled the parade route on small horses while queens and princesses from Grant, Harney and other rodeos rode horseback with saddles laden with bouquets of flowers.

“That was the largest crowd I’ve ever seen,” Flynn said of the numbers of people he passed who were watching the parade. “They were wall-to-wall.”

Among those riding in the parade, and visible all weekend, were this year’s

Round-Up royalty, Queen Alena Vickerman and Princess Rebecca Warner. Both have deep family ties. Vickerman’s sister, Mattee, was the queen in 2015 and 2016, and her grandmother Teresa was a princess in 1964. Warner also has a family history. Her aunt Kristy Reese was the 1984 Queen while her cousin Ashley Reese was the 2012 Queen.

Uniquely, there was no grand marshal for the 100th celebration. As Flynn explained, no one was selected, “Because we felt nobody should get the notoriety. We’re all in this together.”

Past and present presidents, grand marshals and queens and princesses were among those filling the grandstands at the Lake County Fairgrounds for the

Sunday and Monday rodeos.

Both days, Jere Barry, a former grand marshal and Round-Up president, was honored during the Empty Saddle presentation. Barry, 84, died in March. The Empty Saddle ceremony has been held the past 30 years to remember people who have been highly involved with the Round-Up. As in past years, a horse with a saddle but no rider was escorted in front of the grandstands while Barry’s accomplishments were read over the loud speaker to the hushed crowd.

The grandstands were loud for both days of the rodeo, with Sunday’s attendance a record 2,365. PRCA (Professional Rodeo Cowboys Association) cowboys competed for prize money and a chance at qualifying for the PRCA finals in Las Vegas later this year. Events include saddle bronc riding, bull riding, steer wrestling, tie down roping, team roping and bareback riding while local cowboys and cowgirls from Southern Oregon and far Northern California competed in various events, including calf riding, goat tying, barrel racing, and men’s and women’s team roping.

The grandstands were also packed for Saturday night’s dynamic concert featuring country singer Chris

Janson, who ignited the audience — some seated in the stands and others crowded and standing in front of the stage — for more than hour with music, including his hit singles.

Different sounds, those of cars colliding, were heard Sunday night at the annual Destruction Derby, in front of an overflow audience.

The extended weekend, which officially began Thursday with a series of 4-H and FFA exhibits, judging, other activities and Saturday’s 4-H-FFA Fat Stock Sale, also included exhibit building displays, a ranch rodeo, food stands, vendors, 100th anniversary merchandise, and book sales. The carnival offered a variety of rides and activities, including bumper cars, a super slide, children’s games, balloon creations to a traditional Ferris wheel.

“I think for the most part everything went super smooth,” said Lake County Fairgrounds Manager Ronne Lindsay, adding, “We have to have at least one broken pipe in the grandstands bathroom or it isn’t a fair.” Lindsay had no figures yet on attendance, but said the food concessions all reported increases in sales. “I know when the figures are in we’ll see a significant increase in attendance.”

CALENDAR

THROUGH SEPT. 15

Spokane County Interstate Fair: Spokane County Fair & Expo Center, 404 N. Havana St., Spokane, Wash. Spokane County, Wash., invites people from around the region to celebrate. www.spokanecounty.org/1077/General-Information

THROUGH SEPT. 22

Washington State Fair: Washington State Fairgrounds, 110 9th Ave. SW, Puyallup, Wash. Washington’s statewide celebration opens at 9:30 a.m. on weekends and 10:30 a.m. on weekdays. It will be closed Sept. 3-4, 10 and 17. www.thefair.com

SATURDAY, SEPT. 14

Heritage Barn Workshop:

10 a.m.-5:30 p.m., Hollinshead Barn, 1235 NE Jones Road, Bend, Ore. Restore Oregon will host its annual 2019 Heritage Barn Workshop, where barn owners will learn practical solutions from experts on how to maintain, rehabilitate, and adapt old barns for today’s needs. Attendees will learn about the history and construction of barns as well as maintenance, stabilization, funding opportunities and preservation. Cost includes snacks, lunch with choice of sandwich and side, and beverages. \$40 www.restoreoregon.org

MONDAY, SEPT. 16

Cannabis Safety Workshop: Riverhouse on the Deschutes, 3075 N. Business 97, Bend, Ore. Cannabis growers, extractors and processors are invited to a work-

shop focusing on safety and health for the cannabis industry. Deschutes County Farm Bureau, the Oregon Farm Bureau Health & Safety Committee, in partnership with Oregon’s Occupational Safety & Health Division, will present. <http://bit.ly/2jVhoKe> 503-947-7411

MONDAY, SEPT. 23

Fall Cover Crop Workshop: 6-7:30 p.m. Southern Oregon Research and Extension Center, 569 Hanley Road, Central Point, Ore. In this class, we will discuss the benefits of using fall-planted cover crops, learn about the species and mixtures well suited to southern Oregon, and detail the process of growing and managing cover crops for multiple benefits to your farm/ span. \$10 per person <http://bit.ly/>

JacksonExtAgriculture
WEDNESDAY-SATURDAY SEPT. 25-28

Public Lands Council Annual Meeting: Great Falls Civic Center, 2 Park Drive S, Great Falls, Mont. The agenda includes federal agency updates, an Endangered Species Act panel discussion, a public lands ranching panel discussion, a PLC business meeting and a predator tour. <http://publiclandscouncil.org>

THURSDAY, SEPT. 26

Oregon Aglink Open House: 9 a.m.-noon. Oregon Aglink’s new office, 2195 Hyacinth St. NE, No. 105, Salem, Ore. Join the staff and members of Oregon Aglink at the organization’s new Salem office.

Pastries and coffee provided. <http://www.aglink.org>

SATURDAY, SEPT. 28

Goat Education Day: 8:30 a.m.-4 p.m., Auditorium, Southern Oregon Research and Extension Center (SOREC), 429-569 Hanley Road, Central Point, Ore. Adults \$35, Youths (18 and younger) \$20 <http://bit.ly/JacksonGoatEdDay2019>

Sauvie Island Jubilee: 10 a.m.-5 p.m. Howell Territorial Park, 13901 NW Howell Park Road, Portland, Ore. The event is free and open to all. Celebrate Sauvie Island history and culture, and the West Multnomah Soil and Water Conservation District’s 75th anniversary. It will be a fun-filled day of activities for all ages. <https://www.sauvieislandjubilee.org/main>