

People & Places

Controlling pests with good vibrations

By MATTHEW WEAVER
Capital Press

PULLMAN, Wash. — Downen Jocson is using vibrations to disrupt pear psylla pests as they attempt to mate.

The insects, which damage pear trees by sucking their sap and destroying their leaves, communicate via “songs” that attract mates so they can reproduce.

Jocson uses an accelerometer to record the mating calls of the insect pests and playback devices to send vibrations down the stems of the plants.

She plays the male pear psylla songs as a deterrent, overwhelming female senses and forcing males to compete with one another. She also plays back a range of white noise frequencies, canceling out some mating songs.

Jocson also plans to use sticky traps in pear orchards, using the female vibrational song to lure males.

For another experiment, she’s replicating an orchard trellis using galvanized wire attached to the stem of the plants, sending vibrations through the wire.

She said her vibrational playback experiments so far have yielded “promising” results. If Jocson is successful, her findings in pears could be used on other pests that attack other crops.

“It opens up a whole new area of study for all of these crop pests,” she said.

Jocson grew up on Saipan in the Northern Mariana Islands, surrounded by jungles.



Matthew Weaver/Capital Press

Washington State University doctoral student Downen Jocson displays the equipment used to record pear psylla mating songs, which are played back to disrupt the pests' mating rituals.

She wasn’t always interested in insects. She planned to study evolutionary biology, but realized she could help reduce the use of pesticides and develop new pest management tools for organic and conventional agriculture.

“I’ve shifted completely — I love bugs,” she said.

She got her master’s degree studying the effects of temperature has on the vibrational signals of treehoppers, which are not a pest.

Temperature fluctuations affect an insect song’s pitch, she said. “As temperature increases, the pitch increases, because their body warms up and

they can move faster, so they can produce more vibration.”

While working on that project, she realized most insects use vibrational communication to attract mates and wondered if it could be used as a way to control pests.

As a graduate student from 2015 to 2017, Jocson worked in the laboratory of St. Louis University biology professor Kasey Fowler-Finn.

Fowler-Finn credits Jocson with using “a communication system of which very few people are aware — substrate-borne vibrations” to find a more sus-

tainable approach to pest management.

Jocson creatively combines basic and applied sciences for better outcomes for food supplies, she said.

“She gets really into her research, from creating ring tones from the songs of the insects she studies to dressing as her organism for Halloween,” Fowler-Finn said. “She also used to keep spiders in matchboxes when she was a kid and bring them out to fight them. When I heard about this, I knew she was going to be good at insect research!”

Jocson recently received a USDA National Institute of Food and Agriculture

Western Innovator

DOWEN JOCSON

Title: Ph.D. candidate, Washington State University

Age: 28

Hometown: Saipan, Northern Mariana Islands

Current location: Pullman, Wash.

Education: Bachelor’s degree and master’s degree, St. Louis University, both in biology; Ph.D.

Family: Longtime partner

Website: <https://downen-jocson.com/>

grant for \$180,000 for three years, adding more field studies to her work.

After she finishes her Ph.D., Jocson aspires to work for university extension, so she can help organic and conventional farmers.

“In a lot of the research fields, you’re always in the lab, you’re a scientist in your own world, but you never get to see how your research affects other people and where it actually reaches,” she said. “I really want to work with farmers and growers closely to see what they need and see if we can develop and create and help them.”

Kosher harvest: Rabbis travel cross-country for wheat

By BILL BRADSHAW
EO Media Group

ENTERPRISE, Ore. — Since 2008, Hasidic Jews from Brooklyn, N.Y., have traveled to Wallowa County, Ore., to purchase a special type of wheat.

Cornerstone Farms Joint Venture, operated by Tim and Audrey Melville and their sons, Kevin and Kurt, grows the grain for them.

Samuel Porgesz, the manager of a kosher bakery in Brooklyn, said Hasidic Jews have meticulous requirements to make sure the wheat they use is kosher under Jewish dietary laws.

“The kosher law is that whenever we start the harvest, it has to be under rabbinical supervision,” Porgesz said. “Before we start the harvest, we make sure all the combines and all this equipment are clean of any previous grains. ... The second it’s harvested, it’s always going to be under rabbinical supervision.”

He’s not a rabbi, but he knows what the rabbis will be looking for and makes sure the conditions meet



Bill Bradshaw/EO Media Group

Kevin Melville, of Cornerstone Farms near Enterprise, Ore., left, and Samuel Porgesz, a kosher bakery manager from Brooklyn, N.Y., examine recently harvested grain on Sept. 13.

their approval.

“I know the rules of what’s supposed to be done,” he said. “The rabbis inspect the grain before it’s harvested to make sure there’s no sprouts and splits.”

On Sept. 12, two Hasidic rabbis and their driver showed up at the Melvilles’ farm near Enterprise.

Porgesz had been working with the Melvilles all morning using high-pressure air hoses and vacuums to clean

the farm equipment.

“Samuel flew out yesterday ... and he helped us clean everything this morning,” Tim Melville said Sept. 13. “The rabbis just showed up and that’s the way it always works.”

The previous day, Porgesz and the Melvilles loaded wheat harvested about three weeks earlier into 2,100-pound sacks. They were to be loaded onto a truck — 22 sacks — and

driven to a mill in upstate New York to be turned into flour for matzah.

“Every bag will be sealed and then we seal the truck,” Porgesz said. “We will check all the seals once it gets to our mill.”

“We bake all winter long ... all the way to the Passover holiday,” which will be April 15-23, Porgesz said.

Rabbinic inspection

Porgesz may know what they’re looking for, but it’s the rabbis who must make the decision on whether the grain is kosher.

The rabbi in charge of determining the kosher status of the grain, who preferred to go by Rabbi Joseph G., was the youngest of the three, in his late 30s. He’s the son of the grand rabbi and has been studying under his father since childhood.

“The main thing (I like) is that it doesn’t rain so often in the summer months” in the West, he said. “There’s the quality, and the (lack of) shrinkage. ... Our flour quality measures the quality of the wheat. If there

was rain during a stage of the wheat, the kernel inside might get core damage. Even if it’s not sprouted yet, if there was some germination activity ... when some molecules and starches start to mature and it damages the quality of flour.”

Even a little rainfall can begin the process of the natural yeast — leaven — starting its activity, he said.

“We can’t determine each kernel, but the rabbis are trained to look at kernels and see if it’ll be acceptable,” he said. “I was here three weeks ago and compare the sample that was taken to the lab and see if there was any damage from the rain.”

An hour of rain doomed one wheat field they rejected.

“We’re not farmers. We don’t have any experience with tractor-trailers, but usually the Jewish people, they are very smart,” Rabbi Joseph said, and added with a chuckle, “There was once when one of the combines broke down, one of the rabbis said, ‘Oh, you need to fix this (part).’ And in 2 minutes, it was done.”

Grape stomping contest highlights old-world tradition that’s still alive

By SIERRA DAWN McCLAIN
Capital Press

TURNER, Ore. — Christine Clair stomped zealously on clusters of green Muscat winegrapes in a vat, trying not to fall in the cold, slippery fruit. Juice dripped down her ankles.

“It’s a heck of a workout,” said Clair.

She laughed. Clair, winery director at Willamette Valley Vineyards, was gearing up for the Annual Oregon Grape Stomp Championship and Harvest Celebration.

The event, which drew more than 1,500 people in 2019, was canceled in 2020. Now, with social distancing, the stomp returned for

its 30th anniversary Sept. 18 and 19.

“It’s exciting to bring it back,” said Clair.

Contestants compete in pairs, the “stomper” crushes grapes under foot while the “swabbie” guides the juice into a jug.

The pair to make the most juice the fastest wins a \$500 gift card and an overnight stay in a Winery Suite.

Many contestants each year dress in costume, including dozens of Lucy and Ethel pairs, a nod to Italian grape stomping in an iconic “I Love Lucy” episode.

In past years, stompers from Willamette Valley Vineyards have represented Oregon in the World Grape Stomp Championship.



Sierra Dawn McClain/Capital Press

Christine Clair, winery director at Willamette Valley Vineyards, holds onto Emi Bernau as her “swabbie” for support while she treads on grapes.

CALENDAR

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

THROUGH OCT. 2

World Dairy Expo: Alliant Energy Center, 1919 Alliant Energy Center Way, Madison, Wis. Among the many events held are contests and a trade show. Website: <https://worlddairyexpo.com>

TUESDAY-THURSDAY OCT. 5-7

University of Idaho Rangeland Fall Forum (virtual): The forum will focus on adapting to drought, resiliency, different perspectives on drought and survival strategies. All sessions are from noon to 1:30 p.m. mountain time. Website: www.uidaho.edu/cnr/rangeland-center

THURSDAY OCT. 7

Condensed Agriculture Transportation Coalition Meeting (online): 10 a.m.-1:30 p.m. This condensed version of the annual meeting will include sessions on ocean, rail and truck transportation. Website: www.agtrans.org

FRIDAY-SATURDAY OCT. 8-9

PNW Stockmanship and Stewardship Beef Quality Assurance

Event: Ontario, Ore. Livestock specialists from across the nation will present at the Pacific Northwest Stockmanship and Stewardship event. This event is for cow/calf producers, stocker and feedlot personnel and cattle transporters. Attendees will have the opportunity to become Beef Quality Assurance certified, proven to increase an operation’s bottom line. Registration for this two-day event is \$100. Attendees will have the opportunity to receive reimbursement up to \$384 with the Rancher Resilience Grant. Register and learn more at www.stockmanshipandstewardship.org or go to www.orcattle.com.

WEDNESDAY-SATURDAY OCT. 27-30

National FFA Convention and Expo: Indianapolis, Ind. The National FFA Organization will host an in-person 94th National FFA Convention & Expo Oct. 27-30, with a virtual program. National FFA will continue to follow all health guidelines set by the county, state and the Centers for Disease Control and Prevention. More information will be shared as it becomes available. Housing for the in-person event will open July 14, with convention registration opening Sept. 8. Website: <https://convention.ffa.org/>



Capital Press
EMPOWERING PRODUCERS OF FOOD & FIBER
Established 1928

Capital Press Managers

Joe Beach Editor & Publisher
Anne Long Advertising Director
Carl Sampson Managing Editor
Samantha McLaren Circulation Manager

Entire contents copyright © 2021

EO Media Group
dba Capital Press

An independent newspaper
published every Friday.

Capital Press (ISSN 0740-3704) is
published weekly by EO Media Group,
2870 Broadway NE, Salem OR 97303.

Periodicals postage paid at Portland, OR,
and at additional mailing offices.

POSTMASTER: send address changes to
Capital Press, P.O. Box 2048 Salem, OR
97308-2048.

To Reach Us

Circulation 800-781-3214
Email Circulation@capitalpress.com
Main line 503-364-4431

News Staff

Idaho

Carol Ryan Dumas 208-860-3898

Boise

Brad Carlson 208-914-8264

Western Washington

Don Jenkins 360-722-6975

Eastern Washington

Matthew Weaver 509-688-9923

Oregon

George Plaven 406-560-1655

Mateusz Perkowski 800-882-6789

Sierra Dawn McClain 503-506-8011

Designer

Randy Wriughthouse 800-882-6789

To Place Classified Ads

Telephone (toll free) 800-882-6789
Online CapitalPress.com/classifieds

Subscriptions

Mail rates paid in advance

Easy Pay U.S. \$4 /month

(direct withdrawal from bank

or credit card account)

1 year U.S. \$ 65

2 years U.S. \$115

1 year Canada \$230

1 year other countries call for quote

1 year Internet only \$ 52

Visa and Mastercard accepted

To get information published

Mailing address:

Capital Press

P.O. Box 2048

Salem, OR 97308-2048

News: Contact the main office
or news staff member closest to you,
send the information to
newsroom@capitalpress.com

or mail it to “Newsroom,” c/o Capital Press.

Include a contact telephone number.

Letters to the Editor: Send your
comments on agriculture-related public
issues to opinions@capitalpress.com, or
mail your letter to “Opinion,” c/o Capital
Press. Letters should be limited to
300 words. Deadline: Noon Monday.

Capital Press ag media

CapitalPress.com

FarmSeller.com

MarketPlace.capitalpress.com

facebook.com/CapitalPress

facebook.com/FarmSeller

twitter.com/CapitalPress

youtube.com/CapitalPressvideo

Index

Markets 12

Opinion 6

Correction policy

Accuracy is important to Capital Press
staff and to our readers.

If you see a misstatement, omission or
factual error in a headline, story or photo
caption, please call the Capital Press news
department at 503-364-4431, or send
email to newsroom@capitalpress.com.

We want to publish corrections
to set the record straight.