

People & Places

Researcher at OSU expands herbicide options for farmers

By **MATEUSZ PERKOWSKI**
Capital Press

CORVALLIS, Ore. — Farmers who grow specialty seeds in Oregon's Willamette Valley have plenty of weeds but few herbicides to choose from.

Using a combination of science and diplomacy, researcher Ed Peachey convinces chemical companies to make weed-killing products available for such high-value, niche crops.

"There is little financial incentive. They don't get much money back," said Peachey, an Oregon State University horticulture professor. "The chance of getting a return on investment for them is pretty small."

To major herbicide manufacturers, the money generated from an herbicide sprayed on several thousand specialty crop acres is basically a rounding error compared to a major commodity like corn.

Due to the high value of specialty seeds, companies are also reluctant to include them on their herbicide labels because they want to avoid liability for potential crop damage.

Peachey's job is to work with farmers and the state's Department of Agriculture to test specific herbicides on seed crops to see if they're effective and whether they cause much crop damage.

Since specialty seeds fetch relatively strong prices, farmers have a higher tolerance for damage compared to those who grow commodity crops grown on razor-thin margins — as long as weed competition is reduced.

Once he's compiled the data, Peachey must persuade the herbicide's manufacturer it's not taking an excessive risk by expanding the chemical's label registration with the U.S. Environmental Protection Agency.

Hard science and more

"Depending on the product, it can be very difficult to do that," Peachey said, adding that obtaining such permission requires cajoling as well as hard science.

"We know it's meaningless to you, but just out of the kindness of your heart," he jokingly describes a typical plea.

Peachey performs a comparable function for farmers of processed vegetables, who also grow valuable crops on a relatively small number of acres.

In that case, though, he collects data that allows the USDA to deter-



Mateusz Perkowski/Capital Press

Ed Peachey, an Oregon State University horticulture professor, examines garlic grown for seed in a Willamette Valley field. Peachey helps farmers secure new herbicides for high-value niche crops.

mine the "tolerances" for pesticide residues on food crops that won't harm people.

The USDA then petitions the EPA to expand the product's label registration, based on research paid for by the Oregon Processed Vegetable Commission, which raises money from growers.

"Everybody gets on the same page: We want this product, this is what we've got to do," Peachey said.

Other projects

However, Peachey's work isn't limited to studying herbicides.

For example, he's also conducted a long-range project on the possibility of using ground beetles to reduce weed seeds in the soil.

While ground beetles will consume such seeds, they're unfortunately more focused on devouring such sources of

protein as slug eggs and earthworms.

"There's a lot of stuff they'd rather eat," Peachey said.

Another research project involved planting cover crop seeds among the main crop before it gets harvested. Cover crops prevent erosion and crowd out weeds, but they can be tricky to establish during the moist autumn season, when fields can be too wet for machinery.

Peachey demonstrated that cover crops can successfully be inter-seeded even among highly competitive crops, such as corn, with a planter that has three feet of clearance.

Mechanical innovations for weed control are also taking place, such as the robotic cultivator that Peachey and several farmers recently tested on squash and other local crops.

The "Robovator" takes images of crops and weeds as it passes through



Western Innovator

ED PEACHEY

Occupation: Oregon State University horticulture professor

Hometown: Corvallis, Ore.

Age: 64

Family: A wife and two grown daughters

Education: Bachelor's degree in horticulture in 1986, master's degree in horticulture in 1993, doctorate in crop science in 2004, all from OSU

the field, clinching its knives to kill unwanted plants based on their different size. The system reduces manual hoeing expenses.

"We explore everything that has potential," Peachey said.

Flaming weeds with a torch is another non-chemical weed treatment that he's studied, focusing on the ideal time to perform the operation without damaging the crop.

"You want to go as late as possible to get the weeds that come up," he said. "It's all about timing."

Interest in ag

Though he grew up on a small farm in Pennsylvania, Peachey initially wanted to pursue a higher education in electrical engineering.

However, a project involving time-lapse photography of weed emergence rekindled his interest in agriculture.

Peachey initially worked in the nonprofit field, helping farmers in Bangladesh recover from a major famine.

He then returned to Oregon State University, his alma mater, to conduct applied research, such as the weed studies needed by seed and processed vegetable farmers.

Weeds are never a stagnant research subject, since new species are always moving in while old ones find ways to adapt to herbicides.

"You can always count on weeds, taxes and concrete cracking," Peachey said.

Teenagers team up to start hay business

By **CRAIG REED**
For the Capital Press

LOOKINGGLASS, Ore. — While working hard at bucking hay last summer, Lucas Saylor and Ryland O'Toole noticed a need in neighboring fields.

Those properties weren't getting mowed, raked and baled. Although only 14 years old at the time, the two saw a business opportunity — turning fields of grass into hay bales for sale.

So now at age 15, they set themselves up with an informal business during the 2021 hay season. With money saved from last summer's work, Ryland purchased a used mower and Lucas bought a used rake. They borrowed a tractor from Lucas' family and a baler from Ryland's family and went to work.

The two soon-to-be high school sophomores mowed, raked, baled and hauled hay from five fields, ranging from 1 to 15 acres, in central Douglas County.



Craig Reed/For the Capital Press

Ryland O'Toole, left, and Lucas Saylor spent several weeks earlier this summer in hay fields, mowing, baling and hauling hay. The two teenagers started a hay business to turn grass fields in Douglas County, Ore., into hay bales.

"It was a joint effort by both of us to come up with a plan to do this," said Ryland of their informal S&O Custom Haying operation.

"We saw a need out there," Lucas said.

Both teenagers took a tractor driving and safety class through Linn-Benton Community College in

Albany, Ore. They earned permits to drive farm equipment on rural roads. When needed, they got driving and mechanical help from Ryland's grandfather, Terry Fluetsch, and from Lucas' father, Jason Saylor. Those men also had flatbed trailers that were used to haul the hay equipment and then to haul

the bales out of the field and into barns.

Lucas and Ryland helped put up hay from their families' fields, earning the right to borrow equipment to work in other fields. They had to buy the fuel and twine and pay for any repairs, if needed.

"They have things to learn, but they have the initiative," Fluetsch said. "I've been self-employed and Lucas' dad is self-employed. They kind of want to follow in the footsteps of their elders."

All of their production was in two-tie, 50- to 60-pound grass bales. On one job, they got 75% of the bales and the property owner got the other 25%. On their other jobs, they got 60% of the bales and the owner 40%.

Ryland said the hay yield was not as great as past years due to the lack of rainfall and earlier than normal heat, but the partners will earn enough to help buy better equipment for future hay seasons. They already sold some of

their share of the hay and have more that they'll sell through the fall and winter.

The partners were asked this year to work a field that was expected to yield 50 tons of hay, but they turned it down because they didn't feel they had the right equipment for such a big job. Their goal is to obtain equipment that can handle bigger jobs.

"It's a challenge," Ryland said. "There's a new challenge every day at work, but we've got good people around us, helping us with the experience. That's huge."

Fluetsch and Jason Saylor, who both operate and maintain heavy equipment in their professions, have been the mentors for the two teens.

Lucas admitted, "We couldn't have done this without them. When we broke down and didn't know what to do, we needed them and they helped us."

"They showed us the right way," Ryland said.

CALENDAR

TUESDAY-THURSDAY AUG. 10-12

2021 Cattle Industry Convention & Trade Show: Gaylord Opryland Resort, Nashville, Tenn. The convention will include educational seminars, exhibits and networking. Website: <http://convention.ncba.org>

WEDNESDAY-THURSDAY AUG. 11-12

Soil Health Institute Annual Meeting (virtual): The two-day event will cover soil health topics with a lineup of agricultural leaders, scientists and practitioners. Website: www.soilhealthinstitute.org

TUESDAY AUG. 17

Intro to Experimental Statistics: 8:30 a.m. This course will teach statistical thinking concepts that are essential to learning from data and communicating key insights to your organization, clients, or suppliers. Join Catherine Cantley, extension professor at the University of Idaho and TechHelp processing specialist, as we explore the fundamentals of "storytelling with data" in a practical industry-based approach. Website: <https://bit.ly/3AF17f3>

WEDNESDAY-FRIDAY AUG. 18-20

Farwest Show: Oregon Convention Center, 777 NE Martin Luther King Jr. Blvd., Portland. The Farwest

Show, the biggest green industry trade show in the West, is produced by the Oregon Association of Nurseries, a trade organization that represents and serves the interests of the ornamental horticulture industry. For more information, go to www.FarwestShow.com

R-CALF USA 2021 Convention and Trade Show: Rushmore Plaza Civic Center, Rapid City, S.D. The convention will feature industry speakers and networking opportunities. Website: www.rcalfconvention.com

AUG. 20-29

Western Idaho Fair: Expo Idaho, 5610 Glenwood St., Boise. Check back later for more information. Website: www.idahofair.com

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

THROUGH SUNDAY AUG. 1

Deschutes County Fair and Rodeo: Deschutes County Fair and Expo Center, 3800 SW Airport Way, Redmond, Ore. This year marks the 101st edition of Central Oregon's largest event, after COVID-19 forced the event's cancellation in 2020. The theme for the 2021 Fair & Rodeo is "Back in the Saddle." This year, Fair attendees can expect an exciting event full of animals, agriculture, concerts, carnival rides, cotton candy and corn

dogs, along with shopping, exhibits and food. Website: <https://expo.deschutes.org/>

THURSDAY AUG. 5

Internal Auditing for Food Processors (live online): 1 p.m. Internal audits allow you to audit your facility for gaps and compliance. They are an important tool in the on-going food safety toolbox for any food manufacturer, packager, and warehouse and distribution company. This course is for those who are new to internal auditing and those that could use a refresher course. Cost: \$595 Contact Bill Mullane, 208-426-2266, williammullane@techhelp.org. Website: <https://bit.ly/3xt9APY>



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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 Wrighthouse 800-882-6789

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CORRECTION

Because of a computer-generated error a Page 2 story about invasive jumping worms in last week's edition of the Capital Press was jumbled.

A corrected version is available online at www.capitalpress.com.

The Capital Press regrets the error.

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.