Plunging Oregon lottery funds hinder fight against pests and weeds

By MATEUSZ PERKOWSKI
Capital Press

Video lottery revenues evaporated as Oregon's bars and restaurants closed during the coronavirus outbreak, which means there's now less money available for fighting weeds and pests.

The Oregon Department of Agriculture expects the $10.6 million of its 2019-2021 biennial budget that was expected to come from lottery funds will have to be reduced by 30%, said Lisa Hanson, the agency's deputy director.

"For us, it's a cash flow problem initially as well as not knowing how much we're going to get," Hanson said during a remote June 18 meeting of the Oregon Board of Agriculture, which advises ODA.

Though the ODA received its full quarterly distribution of lottery funds in May, it's bracing for a decrease in August. Among the programs most likely affected by a drop in lottery funds are noxious weed control and the prevention and management of insects and pests.

Japanese beetles are among the pests affected by reduced eradication funds at the Oregon Department of Agriculture.

In practical terms, that means certain weed eradication projects won't go forward or won't receive state money, while ODA won't be hiring seasonal workers to set insect traps that help the agency decide how best to control pests next year, she said.

Instead, ODA employees and volunteers will be setting the insect traps, Hanson later said. The agency has scaled back trapping due to past budget shortfalls "but not as drastically as we'd have to do this time."

An ounce of pest prevention is worth a pound of cure, as infestations tend to grow more expensive when they go undiscovered, Hanson said. "The key to the eradication programs is early detection and rapid response. Finding things early when they're small is the best approach."

Aside from anticipating a plunge in lottery revenue, ODA is also recommending 8.5% reductions to several program allotments expected to draw from the agency's $26 million general fund during the current biennium, as requested by Oregon Gov. Kate Brown.

In reality, these reductions would amount to 17% since there's only one year left in the current biennium, Hanson said. The governor can act on those recommendations in forming her own budget reductions or the Legislature can make more precise cutbacks.

"We're still unclear how big the shortfall is going to be," she said. "There are still a lot of balls up in the air."

Among general fund reductions, ODA recommends eliminating:

- $600,000 for laboratory equipment upgrades.
- $200,000 in predator control payments.
- $280,000 slated for the Oregon Invasive Species Council, which conducts education, outreach and coordination.

$10M USDA grant helps UI study turning manure into money

By MATTHEW WEAVER
Capital Press

A $10 million grant from the USDA will help University of Idaho researchers develop a way to turn cow manure into revenue.

Mark McGuire

About 90% of a dairy farmer's income typically comes from milk, said Mark McGuire, associate dean of the university's College of Agricultural and Life Sciences and director of the Idaho Agricultural Experiment Station.

But cow manure has many nutrients that could be used in fertilizers and soil amendments, he said.

The funding comes from USDA's National Institute of Food and Agriculture's Agriculture and Food Initiative's Sustainable Agricultural Systems program. It is one of nine projects from eight universities receiving total of $90 million.

The researchers will test and develop technology and processes to help dairies, dairy processors and other food processing companies make an alternative fertilizer. They will extract nutrients from dairy waste and estimate their value as crop nutrients or soil amendments.

Capital Press File

University of Idaho researchers hope to convert the "raw material" produced by dairy cattle as manure and turn it into valuable fertilizer and soil amendments.

The researchers will also look for possible problems in adopting the new products, McGuire said.

Dairies might adopt the technology, team up with other dairies or new businesses might partner with the dairies to generate the products, similar to methane digester businesses, he said.

"It would hopefully be very low input as far as labor, technology," he said.

In 25 years, Idaho grew from the 11th or 12th largest milk-producing state to third, with most cows in the Magic Valley, said Michael Parrella, CALS dean.

"They produce a product, you could either consider it waste or you consider it nutrients," he said. "From an environmental impact perspective, the focus seems to be more on waste management, how you deal with this product, when in fact there's value there — it's actually fertilizer."

The research project turns a product that many dairy farmers worry about managing into a potentially valuable product, Parrella said.

The five-year project will be undertaken by UI's Center for Agriculture, Food and the Environment, slated to open in 2023. Research will be conducted at the research dairy site in Rupert, Idaho, currently in the design phase, and other locations, McGuire said. Researchers already ran soil samples to get a baseline reading of soil health.

UI's study could "transform" the entire U.S. dairy industry, Parrella said.

It also drives home the links between dairy and other commodities. Forage crops, alfalfa and hay feed the cows, and the resulting nutrients benefit crops such as sugar beets, potatoes, beans and malt barley, he said.

"It actually reinforces the sustainability of the whole system," Parrella said. "This almost brings it to full circle."

Farmers today use fertilizer guides from the 1970s. McGuire said the study will result in updated information about crop nutrient requirements.

Dairy is the top agricultural industry in Idaho, producing more than 13 billion pounds of milk valued at more than $2.2 billion each year.

"To give (dairy) an alternative income stream would be very important," McGuire said, pointing to low milk prices in recent years.

The project includes 21 faculty researchers, four post-doctoral students, 23 graduate students and 37 undergraduate students. One researcher will emphasize water quality and cleanup as part of the study, Parrella said.

The study will include work from the university's soil and water systems, plant sciences, agricultural economics and rural sociology, engineering, animal and veterinary science and extension departments.

Parrella said the grant establishes that UI is competitive nationally.

"We do expect it to be one of many large grants to come through once CAFE gets up and running," he said.

Oregon DEQ hands out $63,750 in fines for manure digester overflow

By GEORGE PLAVEN
Capital Press

TILLAMOOK, Ore. — Oregon environmental regulators have issued $63,750 in fines after an anaerobic digester at the Port of Tillamook Bay malfunctioned last year, causing 163,301 gallons of partially treated cow manure to overflow into a nearby creek.

The port, which owns the facility, was fined $19,800 by the Oregon Department of Environmental Quality. Tillamook BioGas LLC, based in Raleigh, N.C., leases the digester and was fined $26,700.

DEQ also fined Regenis, of Ferndale, Wash., $17,250. Tillamook BioGas hired Regenis — a company that specializes in building and maintaining farm digesters — to operate the plant.

Port of Tillamook Bay

The stormwater outfall at Anderson Creek, which is more than 2 miles from the Tillamook River. The river then goes several miles before reaching the bay.

All three fines are now under appeal. Clay Hartman, project manager for Tillamook BioGas, said the company has spent months raising money to retrofit the digester and comply with DEQ requirements.

"We remedied the underlying conditions that caused the spill," Hartman said. "We did even more than what they asked for, actually."

The digester was originally built in 2012 and operated by the Port of Tillamook Bay on the northern Oregon coast until 2017. It takes manure from dairy farms in the area and captures methane and carbon dioxide emissions from the waste, used to create electricity.

The process, known as anaerobic digestion, works by heating the manure slurry in large tanks without oxygen, allowing bacteria and microorganisms to break down the material and release gases.

After sitting idle for two years, DEQ issued a new permit for the digester in late 2018 and the port leased the facility to Tillamook BioGas. Tillamook BioGas, in turn, hired Regenis in February 2019 for day-to-day operations.

On July 22, 2019, a faulty sensor caused one of the digester's tanks to overflow, spilling 378,572 gallons of liquid manure overnight.

An estimated 163,301 gallons reached a storm water pipe that empties into Anderson Creek, south of the Tillamook River.

The Tillamook River flows into the Pacific Ocean at Tillamook Bay, where the Oregon Department of Agriculture says there are 10 licensed shellfish firms.

U.S.-Israeli research grants fuel agricultural advancements

By SIERRA DAWN MCCLAIN
Capital Press

When it comes to research funding, university professors say agriculture often gets overlooked. But a successful international fund is showing that agricultural research is worth the investment.

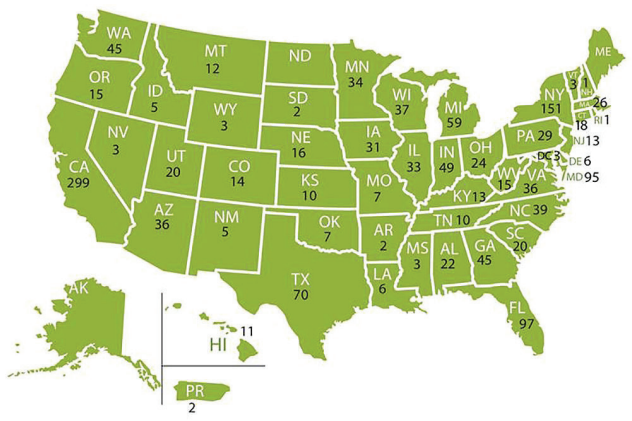
A joint U.S.-Israeli research fund has approved $7.3 million this June for 22 agricultural research projects done jointly by Israeli and U.S. scientists. Three 2020 awardees are based in California.

The program, which funds three-year projects and pays researchers about $310,000, is called the U.S.-Israeli Binational Agricultural Research and Development Fund, or BARD for short.

This year, BARD also granted 10 postdoctoral fellowships, including one to a researcher in Washington state, one in Oregon and four in California.

Several researchers told the Capital Press that even with grants from the USDA, Food and Drug Administration and other organizations, agricultural research still has limited funding. They say BARD is significant not only because it has transformed agriculture and contributed to the global economy, but also because it demonstrates the payoff from investing in agricultural research.

The American and Israeli governments created and funded the program in 1978 because the nations had shared interests in agriculture and science.



BARD

BARD-funded agricultural research projects since 1978 by state.

"I get to work with incredible scientists from around the world. It's really, really fascinating," said David Zilberman, 2020 BARD recipient and professor of agricultural and resource economics at the University of California-Berkley.

This year, Zilberman and his fellow researchers plan to study how microalgae can be managed for agricultural purposes.

Among the other grant proposals approved this year are projects on salmonella sensing-based antibacterials for use in poultry, Beta-glucans as growth promoters and antibiotic alternatives and the use of in-vitro embryo production and gene editing in sheep.

For decades, BARD has been a global pioneer in drip irrigation, solar sterilization, increasing milk yield, biological control of pests and more.

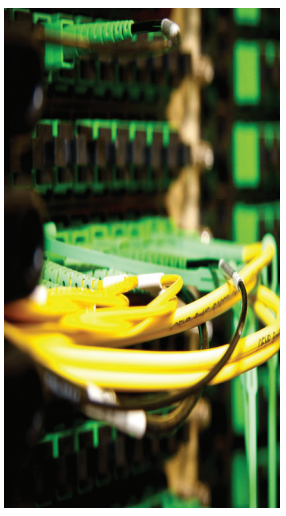
An independent, external review of BARD recently measured the program's impact.

According to the review, the grants have led to 200 new agricultural practices, 40 commercial deals and 100 patent-series and breeding licenses.

For every U.S. dollar spent in BARD's agricultural research, $20 has been gained, economists estimate.

Since 1978, BARD has awarded 299 grants to California researchers, a higher number than any other state. Scientists say this is partly because Israel's arid environment makes it a natural research partner for California, which produces similar crops.

Yoram Kapulnik, BARD's executive director, told the Capital Press that Israel's struggle to supply water to a growing population forced the nation to become a world leader in water and agricultural technologies.



USDA

Oregon has received money from the federal government that will be used to expand the availability of broadband internet in some rural areas of the state.

Coronavirus relief funds to finance broadband projects in rural Oregon

By MARGO CRAIG
Capital Press

Oregon's Legislative Emergency Board has allocated $20 million in federal coronavirus relief funding to expand broadband internet availability in rural areas of the state.

Half of the $20 million will go to projects in regions that have no broadband internet access. It will be distributed through the Rural Broadband Capacity Program, which is managed by Business Oregon, the state's economic development agency.

The other half will go to Link Oregon, a nonprofit consortium that includes the State of Oregon and the state's four research universities working to expand broadband coverage in the public sector, including school districts, health care providers and businesses.

The funding will be used for Phase 2, which focuses on southern and eastern Oregon, including Roseburg, Medford, Ashland, Klamath Falls, The Dalles, Pendleton, La Grande, Ontario and Burns, among other locations.

The program will begin accepting proposals once details are clarified, according to Nathan Buehler, communications and research manager for the Oregon Business Development Department.

The $20 million for rural internet expansion was part of $247 million the state received through the $2 trillion Coronavirus Aid, Relief and Economic Security Act, or CARES Act, which Congress passed last spring.