

Breeding heat-resistant hops

By SIERRA DAWN McCLAIN
Capital Press

CORVALLIS, Ore. — After this summer's heat waves scorched Northwest hop yards, reducing yields, many growers are asking for more heat- and drought-resilient hop varieties — and researchers, relying on new funding, are answering the call.

"I'm sure growers at the January (American Hop Convention in Florida) will demand more hops that can stand up better against wildfire smoke, heat and drought," said Peter Weathers, a grower in Salem whose hop fields this year saw heat losses.

On the private industry side, growers are pushing breeders of proprietary hop varieties to develop more climate-resilient hop plants.

On the public side, USDA and university researchers are using new federal and private funds to improve public hop varieties and develop new ones.

John Henning, a hop geneticist at USDA who has an appointment at Oregon State University, is one of the nation's lead researchers in this area.

Henning's hop breeding program, spanning Washington, Oregon and Idaho, involves about 100 different plant family lines.

The summer's heat, Henning said, helped reveal which varieties and genetic lines are strongest.

"This was a good year to find out which (hops) are most susceptible to heat and which ones are not," said Henning.



The Mosaic hop variety about to be harvested.

Sierra Dawn McClain/Capital Press



John Henning

Through his initial research, Henning noticed three major trends.

First, Henning found that triploid hop cultivars — hops with three rather than two sets of chromosomes — tend to be more drought-resistant.

Second, he found that later-establishing varieties performed worse because the young hops didn't make it far up the trellis before the heat hit.

Finally, he said hop plants with longer or more fibrous root systems seemed to fare better.

Although Henning didn't specify which varieties are most and least resilient by name — he's not permitted to do so as a USDA researcher — others in the industry have

been more candid.

Several growers, along with Michelle Palacios, administrator of the Oregon Hop Commission, told the Capital Press that Citra and Centennial were among the varieties most impacted by the heat, especially Citra because the plants were young when the heat hit.

Citra is highly sought-after by brewers for its citrusy flavor and aroma.

Weathers, the Salem farmer, said growers walk a fine line between growing what holds up well under heat while producing what brewers want.

Palacios of the commission agreed.

"You can breed the perfect hop — it's got disease resistance, can handle water stress and heat — but if people don't want to buy it, what's the point?" she said.

Another grower, who

spoke on condition of anonymity, said many popular hop varieties are not the most sustainable.

"Some of the popular varieties like Citra and Simco require more spraying or more water," the grower said. "The brewers and end-consumers are not always sophisticated enough to know that the hops they like best might have a bigger carbon footprint."

Henning of USDA said researchers will work to improve popular varieties through breeding and management strategies, while also developing new varieties.

2021 is an interesting time for hop research, Henning said, because new money from Congress, research at state universities and new USDA hop research positions are making progress possible at a rate he's never seen before.

"It's an exciting time, to be honest," he said.



Ben Lonergan/East Oregonian

Andrew Whiteman rides Dusty Dan into the final horse exchange on Sept. 16 during the Indian Relay Race at the Pendleton Round-Up.

179 COVID cases traced to Round-Up

By BRYCE DOLE
East Oregonian

PENDLETON — Umatilla County health officials have traced nearly 180 COVID-19 cases to events that occurred during the week of the Pendleton Round-Up.

But the initial spike in cases that followed the week-long rodeo seem to be on a slight decline, said Umatilla County Public Health Director Joe Fiumara.

"I'm hoping we've gotten past the initial bump," Fiumara said after reporting the 179 cases. "Time will tell. It will be important for people who are sick to stay home."

County officials were expecting to report a record-high COVID-19 case count last week, but as the week wore on, case counts began to lower. Last week's total amounted to 487 cases, making it the county's third most infectious week since the pandemic started.

It's a positive sign after an alarming initial bump in cases, Fiumara said, but infection rates remain far higher than they were before the delta variant surge began in mid-July.

"It's hard to be happy with cases dropping to 50 or 60 each day," Fiumara said.

The decrease, Fiumara said, also doesn't mean increased COVID-19 hospitalizations and deaths won't follow, as they have after

previous pandemic surges.

"Both of our hospitals have seen cases and hospitalizations go up a little," Fiumara said of Good Shepherd Medical Center, Hermiston, and CHI St. Anthony Hospital, Pendleton.

Harry Geller, St. Anthony's president, said in an email that the hospital has seen a "significant increase" in patients admitted to their emergency department over the past two weeks. Staff are treating between 45 to 55 patients per day.

"During normal times, we average 32 patients per day," Geller said.

As of Monday, Oct. 4, 10 out of the hospital's 18 inpatients had COVID-19.

"With 25 inpatient beds set up and staffed, we have not yet gone over capacity," Geller said. "We've come close on many occasions, but so far, so good."

Unvaccinated account for 85% of cases from Round-Up. Data provided by the county health department late last week showed 85% of COVID-19 cases traced to the week-long rodeo were among unvaccinated people. Health officials have said some of the cases came from people who had COVID-19 symptoms prior to Round-Up but still chose to come.

The Round-Up required no proof of vaccination or negative COVID-19 to enter the grounds. Had there been a requirement, Fiumara said some of the infection could have been avoided. He pointed to college football games in Oregon that have those requirements and have yet to see an outbreak.

There is no state rule that says organizers must require a proof of COVID-19 vaccination or negative test to hold an event.

Pendleton Round-Up General Manager Erika Patton did not return a call seeking comment prior to press time.

Cases stemming from the week-long rodeo have so far been reported in Oregon, Washington and Montana, as well as Umatilla, Jefferson, Morrow, Wallowa and Union counties, according to Mike Stensrud, an epidemiologist with Umatilla County Public Health. The vast majority of cases have been reported in Umatilla County — 166.

Shell to expand Oregon biogas plant

By CAROL RYAN DUMAS
Capital Press

JUNCTION CITY — Shell Oil Products U.S. is expanding its New Energies facility in Junction City to produce renewable natural gas.

The company also announced plans for two more facilities at dairies in Idaho and Kansas.

The facility in Oregon uses cow manure and straw

to produce 736,000 million Btu a year of renewable natural gas.

The expansion added six anaerobic digesters, changing the feedstock from food waste to manure and straw and replacing the biogas-fired electrical generator with a gas upgrading system.

The new RNG production facilities are the Shell Downstream Galloway at the High Plains Ponderosa Dairy in Plains, Kan., and Shell

Downstream Bovarius at the Bettencourt Dairies in Wendell, Idaho.

Together, the two RNG facilities will produce approximately 900,000 million Btu a year of renewable natural gas.

The company does not disclose the specifics of the arrangements, including how much the dairies are paid and the relationships with the dairy farmers.

The byproduct of its manure-based biogas production depends on the facility and the needs of the dairy operations, according to the company. For the Junction City operation, the byproduct is fertilizer.

The RNG produced at the Shell facilities enters the pipeline and is commingled with the natural gas supply.

In the case of Junction City, Shell is selling the natural gas to the Northwest Natural gas utility.

Shell wouldn't comment on future plans for additional manure-based biogas facilities or partnerships with dairies.

"Portfolio shaping is an ongoing process within Shell businesses to ensure we have the right mix of assets to deliver maximum value to our shareholders and deliver on our business strategy," the company said.