



Oregon State University barley breeder Patrick Hayes. The university is leading a three-year, five-state project to test new varieties of naked barley.

Naked barley flashes potential, versatility

Initiative led by OSU

By **GEORGE PLAVERN**
Capital Press

Naked barley is turning heads among researchers as a sexy choice for organic farmers looking to access a variety of different markets, including food, beer and animal feed.

While most commonly grown barleys have indigestible outer-layer hulls stuck onto the grain, naked barley is the result of a mutation that naturally strips the hull away, leaving seeds exposed.

Oregon State University is now leading a three-year, five state project to test new varieties of naked barley, with \$2 million in funding from the USDA Organic Agriculture Research and Extension Initiative. Partners include Washington State University representing the Pacific Northwest, the universities of Minnesota and Wisconsin-Madison representing the Midwest, and Cornell University representing the Northeast.

Pat Hayes, a barley breeder and professor of crop and soil science at OSU, said naked barleys have been around for almost 10,000 years, though they have not gained much traction in the U.S.

"We are all united in the goal to provide organic gardeners, growers, processors and consumers with an alternative crop, food and raw material that will be economically rewarding and



Oregon State University is leading a project to test new varieties of naked barley using \$2 million from the USDA Organic Agriculture Research and Extension Initiative.

sustainable," Hayes said.

Barley used to a much larger portion of Oregon grain production, Hayes explained, though almost all of it went to the animal feed markets, where low prices made it a money-losing proposition.

By removing the seed hulls, barley can be used in several foods such as porridges and baked goods. The U.S. Food and Drug Administration has also linked whole grain barley to reduced risk of heart disease.

The difficulty, Hayes said, is that removing the hull must be done by machinery, and can also grind away the bran, which results in pearled barley losing its whole grain status.

That is not an issue, however, with naked barley.

"If you want to be marketing barley as a whole grain, the way to do that is to have a naked barley where you don't have to grind the hull off the grain," Hayes said.

Barley hulls do have an advantage in the beer world, acting as a natural filter during the initial phases of brewing, though Hayes said that can be overcome with a technology known as mash filtration. Several Oregon breweries now use mash filters, he said, which are actually more efficient and deliver more gallons of beer per pound of barley.

Recently, OSU developed the first fall-planted variety of naked barley specifically for the Northwest — appropriately named "Buck." Hayes said the university partnered with Breakside Brewery in Portland in December to brew an experimental beer named Buck Naked Golden Ale, which sold out.

With potentially more markets open to naked barley, Hayes said growers may find the crop an appealing option, especially among wheat farmers looking for a viable rotation crop.

"You use exactly the same machinery (for barley) as you use for wheat," he said. "We're such a productive state that not only can we first meet our local demands, but we need to keep an eye on those export markets."

Growers interested in learning more about naked barley are encouraged to attend OSU's annual barley field day, scheduled for June 1 in Corvallis.

Environmentalists argue Oregon wolf delisting unlawful

By **MATEUSZ PERKOWSKI**
Capital Press

Environmentalists claim Oregon lawmakers wrongly pre-empted the court system by deciding that wolves were properly delisted as an endangered species.

The controversy stems from the 2015 decision by Oregon's wildlife regulators to remove wolves from the state's version of the Endangered Species Act list.

Under federal law, wolves were delisted in Eastern Oregon but remain protected in the rest of the state.

Three environmental groups — Cascadia Wildlands, Center for Biological Diversity and Oregon Wild — filed a lawsuit claiming the state's delisting decision unlawfully failed to rely on the best available science.

Fearing that protracted litigation would interfere with an update of Oregon's plan for managing wolves, lawmakers passed a bill in 2016 ratifying the Oregon Fish and Wildlife Commission's delisting decision.

During Jan. 31 oral arguments before the Oregon Court of Appeals, the plaintiffs claimed the Oregon Legislature's ratification was merely an advisory opinion and doesn't have a binding legal effect.

Even if lawmakers intended to legally confirm that wolves were delisted, their bill unconstitutionally infringes on the court system's authority, according to the plaintiffs.

Under the "separation of powers" enshrined in Oregon's Constitution, the legislative branch of government cannot "unduly burden" the duties of the judicial branch.

In this case, Oregon lawmakers wrongly usurped the court system's job of deciding whether wolves were delisted in compliance with the state's Endangered Species Act, the environmentalists argue.

Similarly, the Legislature

can repeal a criminal statute, or change the definition of a crime, said Daniel Kruse, the plaintiffs' attorney. Lawmakers cannot, however, decide that an individual person hasn't violated the terms of an existing criminal statute, he said.

Passage of the bill "blurs those boundaries," Kruse said. "As judges, I hope you would value that distinction."

The bill ratifying the wolf decision did not effectively create or change the law, he said. "It doesn't create a legal standard to be reviewed or applied."

Attorneys representing Oregon countered that lawmakers made moot any debate over the legality of the wolf delisting when they agreed the decision satisfied the state's Endangered Species Act.

While the decision was delegated to the Oregon Fish and Wildlife Commission, that doesn't limit the power of Oregon lawmakers to remove wolves from the list, according to the state government.

When questioning Carson Whitehead, an attorney for the state government, the Oregon Court of Appeals judges focused on conflicting testimony about the ratification bill during the 2016 legislative session.

The legislative history shows that some lawmakers were led to believe the bill would have a binding effect, while others were told it would not preclude judicial review, said Judge Rex Armstrong.

Carson replied that any ambiguity in the legislative history can be resolved by looking at the statute's text, which clearly states the delisting decision satisfied the elements of Oregon's Endangered Species Act.

Lawmakers did not outright remove wolves from the list, as they wanted to leave future options open, Carson said. "If the wolves need to be relisted in the future, the commission can do that."

Washington adopts rules for recycling water

By **DON JENKINS**
Capital Press

The Washington Department of Ecology finalized rules Wednesday for recycling water for non-drinking uses such as irrigating crops and controlling dust.

The rules, which take effect Feb. 23, were a decade in the making and consolidate a patchwork of regulations that govern reclaimed-water projects.

"Reclaiming water can help Washington communities prepare for and recover from droughts," Ecology Director Maia Bellon said in a written statement. "By expanding options for reclaimed water use, we can help Washington communities use the right water for the right use."

The Legislature directed Ecology in 2006 to write rules to encourage more water recycling to stretch water supplies. The rules have been delayed for several reasons, including concerns that recycling wastewater would take water away from downstream users.

Ecology withdrew an earlier proposal in 2015 after the Washington Farm Bureau and others complained the rules would not protect water rights. Ecology presented a revised proposal last fall that drew few comments.

The new rules will require reclaimed-water proponents to study how their projects would affect existing water rights.

Water rights could not be impaired unless the water-right holder agreed to compensation, or a plan to offset the diversion

of water. The state Supreme Court in the 2015 Foster decision, however, barred such plans, including cases in which the parties agree there would be an environmental benefit.

The rules also require Ecology to consult with Native American tribes and the Department of Fish and Wildlife before approving a project.

The rules set treatment standards for Class A and Class B reclaimed water.

Class A reclaimed water can be used to irrigate food. Class B reclaimed water can also be used to irrigate, but with some restrictions.

Class B water can't touch fruit within 15 days of harvest and also must be applied at least 50 feet from any public access.

Under old rules, the state has issued 28 permits to reclaim water, mostly to cities, counties and sewer districts.

WSU Northwestern Washington Research & Extension Center
16650 WA-SR536,
Mount Vernon, WA 98273

Water, Labor, Economic Viability, Innovation & Leadership

Friday, February 16th
9am - 6pm

Free to public • No registration necessary

Questions: 360-428-4270 or dmc Moran@wsu.edu.

This program has been approved for
1 WSDA Re-certification Course Credit.

Platinum Sponsors:

Skagit County
WASHINGTON STATE UNIVERSITY EXTENSION

Interpreting Technology

Port of Skagit

SKAGIT COUNTY WASHINGTON

5-3/103

Come Discover What's Inside

The miles one ton of cargo can be transported on one gallon of fuel:

Semi Truck: 59 miles
Train: 202 Miles
Barge: 514 miles

Visit the SAGE Center Monday through Saturday from 10 a.m. to 5 p.m.

Find us on:

101 Olson Road - Boardman, OR 97818
(541) 481-7243
www.visitsage.com

5-2/101

Weekly fieldwork report

Ore.

Wash.

Idaho

Calif.

Item/description	Ore.	Wash.	Idaho	Calif.
• Snow water equivalent*	50%	102.6%	84.1%	41.8%
• Percent area in drought	65.4%	9.5%	4.6%	54.5%
• Avg. temperature, 6-10 day outlook (Percent chance deviation from normal)	50-70% above	40-60% above	40-70% above	70-80% above
• Precipitation, 6-10 day outlook (Percent chance deviation from normal)	33-70% below	33-40% below	Normal/ 50% below	50-80% below
• Soil moisture anomaly (Monthly deviation from normal)	Normal/ Below normal	Normal/ Above normal	Normal/ Above normal	Below normal

*Aggregate average percent of median as of Jan. 16. Medians calculated for the period from 1981-2010. Sources: USDA, NRCS, NOAA, www.ca.gov; www.drought.gov

YOUR FARM TIRE HEADQUARTERS

Les Schwab Tire Centers are proud to sponsor the Fieldwork Report. We have over 475 stores throughout the West! www.LesSchwab.com