

WSU researcher investigates prickly lettuce as rubber source

Weed could also be possible cover crop

By **MATTHEW WEAVER**
Capital Press

A Washington State University plant researcher is exploring the possibility of Northwest farmers raising prickly lettuce, a weed, for rubber production.

When lettuce flowers and goes to seed, according to WSU, a milky white sap bleeds from the stem. In prickly lettuce, the substance could prove to be an economically viable source of natural rubber.

The ultimate intent is to see prickly lettuce used as a rubber source, since there are not many good rubber sources from temperate regions of the world, said WSU weed scientist Ian Burke, based in Pullman, Wash.

Burke is one of the authors of a study in the *Journal of Agricultural and Food Chemistry*.

Most naturally occurring rubber comes from the rubber tree, which is an endangered resource.

"Having a temperate source of rubber, I think, would be good," Burke said. "Figuring out how to make that work is a different proposition. There's a lot of work to do."

Lettuce has never formally been used for rubber, but has periodically been acknowledged as a good source for rubber, Burke said. It is cited in one report as one of the top five rubber-producing plants in the world.



Jared Bell/Washington State University
Washington State University researchers say the milky sap in the weed prickly lettuce could be used as a natural source for rubber production.

It's a rare occurrence for a weed to suddenly be found to have a useful purpose, he said.

"There are a lot more examples of the opposite happening," he said with a laugh. "People try plants out to see if they'll be crops and they become weeds — that's a lot more common."

It's often not so easy to grow a weed on purpose, Burke said. Prickly lettuce is sensitive to downy mildew and other diseases usually found in cultivated lettuce.

"Often you discover limitations you didn't expect," Burke said. "I would anticipate that with prickly lettuce, but right now it's pretty easy for us to grow."

It's not yet clear how much prickly lettuce would be required, Burke said.

"We don't know yet what it would yield on an acre basis or how to economically extract the rubber," Burke said.



Jim Kennedy/Washington State University
Washington State University researchers are exploring the weed prickly lettuce as a possible source for rubber production.

The next step is to work to find an answer to such questions, he said.

Growers have expressed interest when they hear Burke's idea. He hasn't started working with any to grow it yet.

"I'm quite sensitive to the suggestion of growing weeds," he said.

Burke hopes to begin breeding prickly lettuce for less "weediness" and more rubber. He hopes to find an

economic way to get the rubber out of the plant.

Prickly lettuce won't surpass apples or wheat production in Washington, Burke said. He sees it more as a possible cover crop, with a value-added trait to help preserve soil and produce a useful, natural product.

"To make that happen, the rubber has to be more valuable than the energy it takes to get it out of the fields," Burke said.

Industrial reserve bill falls short in committee

Proposal would have disrupted agriculture, state land use system, opponents say

By **MATEUSZ PERKOWSKI**
Capital Press

SALEM — A bill that would create large-lot industrial areas outside urban growth boundaries in three Oregon counties has failed to pass a key committee.

The Oregon Farm Bureau and conservation groups opposed Senate Bill 716, which would have allowed Clackamas, Washington and Columbia counties to designate industrial reserves of up to 500 acres outside an established UGB.

Proponents of the bill claimed that large blocks of industrial land are currently rare in the Portland metropolitan area and would attract new companies and jobs to the region if made available.

Under SB 716, newly created industrial zones would be offset by reducing "urban reserves" in other areas — which supporters said would result in no net farmland loss — but opponents argued that the program would disrupt the existing land use system.

Large-lot industrial reserves would likely be designated on farmland, interfering with agricul-

ture and undermining a "grand bargain" agreement that Oregon lawmakers struck in 2013 to settle a far-reaching lawsuit over urban and rural reserves, according to opponents of the bill.

Opponents also feared that the bill was intended to spur development in the "French Prairie" area south of Wilsonville, Ore., which has been designated as a rural reserve due to transportation and water constraints. They instead urged lawmakers to invest in "infrastructure" to spur development in existing industrial zones.

Members of the Senate Committee on Environment and Natural Resources voted 3-2 against moving the bill to the Senate floor with a "do pass" recommendation during a work session on April 20.

Committee chair Chris Edwards, D-Eugene, said he voted in favor of the bill because there's a shortage of large lots in the Portland metropolitan area within industrial zones.

The bill would stimulate needed economic activity, he said. "Sometimes you've got to go against the grain to make some changes."

Turmoil in Yemen stalls 50,000 tons of PNW wheat

Country a top importer of soft white

By **MATTHEW WEAVER**
Capital Press

Political unrest in Yemen has stalled offshore several ships carrying commodities, including a ship carrying nearly 50,000 metric tons of soft white wheat loaded in Portland.

According to Reuters, warships from a Saudi-led coalition have blocked a ship carrying more than 47,000 metric tons of wheat from entering a Yemeni port, demanding United Nations guarantees that the cargo would not go to military personnel.

The Saudis are concerned about ships carrying arms to

Houthi rebels, and want to ensure that the food being delivered does not go to them, said Scott Yates, director of communications for the Washington Grain Commission.

Yemen has been as high as the fourth largest importer of soft white wheat from the PNW, but has come in fifth in recent years. Yates said the ranking will likely decline in the 2014-2015 marketing year.

The PNW shipped 250,000 metric tons this marketing year, with no orders on the books for more, he said. In the 2013-2014 marketing year, Yemen purchased 353,000

metric tons of soft white wheat, and no other classes.

The market in Yemen is divided between large flour millers and home use, where consumers buy grain, store it at home and have it ground into flour at local mills in the village.

Because of the danger, U.S. Wheat Associates last sent a representative into the region roughly five years ago, Yates said.

The commission used to regularly visit Yemen. Former CEO Tom Mick, now retired, visited Yemen roughly seven years ago, and Whitman County representative Randy Suess went with him several years before that.

There were safety concerns even then, Suess said. Ev-

"It is very sad when food is used as a tool of war."

— Scott Yates

Communications Director, Washington Grain Commission

ery time he and Mick would check into their hotel, their vehicle would be checked for possible bombs, and they were provided an armed driver to take them around.

One of the flour mills Suess and Mick visited was recently shelled by terrorists, Suess said.

"We thought maybe we'd end up losing some market shares in that area just because of the distance and the

expense of transportation to get it there," he said. "We didn't anticipate it would be because of terrorism."

The United States is being squeezed out of the entire Middle East region, more because of the closer proximity of such exporters as the Black Sea region, particularly Russia, and the European Union, Yates said.

The cost to Yemen for wheat from Portland is around \$260 per metric ton, while Russian

grain is about \$200 per metric ton and has a transportation advantage, Yates said.

U.S. Wheat continues to service the area, but has shifted focus to Latin America, the Pacific Rim and to Europe, Yates said.

Suess hopes the situation can be worked out, citing the importance of the Yemen market to PNW farmers.

"I hope something can change to get it back to what normal was again," he said.

"It is very sad when food is used as a tool of war," Yates said. "We are very appreciative of Yemen's purchases of soft white over the years and wish citizens of the country the very best."

Lorenzen reappointed to NW Power Council

By **ERIC MORTENSON**
Capital Press

Balancing the demands and capacity of the Northwest's electrical power system while taking wildlife and alternative energy sources into account has become an enormously complex task, a member of the Northwest Power and Conservation Council says.

Henry Lorenzen, 70, a Pendleton, Ore., attorney and third-generation wheat farmer, recently won unanimous reappointment to the council from the Oregon Legislature. Oregon, Washington, Idaho and Montana each appoint two members to the council; Oregon's other representative is Bill Bradbury, a former secretary of state.

The council, formed in 1980, is charged with balancing the region's energy and environmental demands, with special attention to preserving the Columbia River's ability to benefit both.

The region is projected to have adequate power supply for the next several years, but Lorenzen said the Columbia River hydroelectric system is nearly "tapped out" in its ability to cover the fluctuations of alternative sources such as wind power.

A wind turbine, common in the eastern reaches of the Columbia River Gorge, may produce 4,200 megawatts of electricity one day and 100 megawatts the next, depending on the wind, Lorenzen said.

Balancing the system to handle peak demand is "enormously complicated" but makes the council position enjoyable, he said.

"It's a wonderful opportunity to deal with issues at a policy level, which I am absolutely passionate about," Lorenzen said.

It also allows him to stay home in Pendleton. Even as he was leaving for college at Oregon State University, he was promising himself that he would return to the family farm.

He had some marks to make first. He earned an electrical engineering degree at OSU, then attended Harvard University for a master's degree in business administration before picking up a law degree from Lewis & Clark College in Portland.

He clerked for legendary federal Judge James Burns, then spent six years with the U.S. Attorney's Office. He did criminal defense work for one year and civil litigation for the next five.

But the farm was calling. In 1984, he and his wife, Marcia, moved back to Pendleton and he joined a law firm in town. Among other work, Lorenzen represented multiple electrical cooperatives in the region.

He also served on the state Environmental Quality Commission as it issued the permit to destroy the nerve gas stored at the military's Umatilla depot. At Lorenzen's suggestion, the incinerator design included a carbon filter to capture any accidental emissions.

Washington Senate honors Roseleip

Search for new president underway

By **MATTHEW WEAVER**
Capital Press

Retiring AgForestry president Dave Roseleip received a special honor from Washington state senators April 17.

Sen. Mark Schoesler, R-Ritzville, entered a resolution honoring Roseleip, who leads the Washington Agriculture and Forestry Education Foundation, for his 30-year career. Roseleip will retire June 30.

The foundation offers a long-running leadership development program. Participants attend 12 three-day workshops and spend a week in Washington D.C. and two weeks overseas as part of the two-year program. More than a thousand members of Washington's agriculture industry have gone through the program.

Roseleip stood on the Senate floor with Schoesler and Sen. Linda Evans Parlette, R-Wenatchee.

Schoesler graduated from Class 10 of the program, Parlette from Class 2.

"Now, therefore, be it resolved that the Washington State Senate congratulate David Roseleip on an entire career spent training two generations of leaders, who include past and present state senators and



Matthew Weaver/Capital Press

Washington Agriculture and Forestry Education Foundation president Dave Roseleip sits in his office in Spokane Dec. 3, 2014. The Washington State Senate honored Roseleip with a resolution April 17.

Online

<http://agforestry.org/>

representatives, city and county commissioners, small- and large-acreage producers, farmers, ranchers and proprietors," the resolution reads.

"I'm honored to have the resolution pass," Roseleip said. "It makes me very

grateful for the friends and people who have supported me throughout the journey of leadership."

Roseleip graduated from the foundation's first leadership class, and took over as foundation president with the sixth class.

The deadline for the 38th class of leaders is April 30. Roseleip said the foundation is actively recruited across the state. There are 24 spots. Rose-

leip expects to receive 35 to 40 applications. Those who are not accepted would have to apply at another time.

The succession planning committee is nearing the end of their project, Roseleip said.

He expects his replacement to be announced around the second week of May, after the May 9 graduation of Class 36 in Spokane.