

There's A Market For "Naked" Barley

Patrick Hayes is excited about the potential for Buck, a "naked" winter barley soon to be released for production. Like hullless oats, naked barley loses its hulls at harvest. That means there's more actual barley kernel in every pound. It also means naked barley berries can go directly to milling for flour, flaking or steaming, or simply be added to soups. While important for food and feed use, it may be especially important in malting.

"The hull accounts for 10 percent or more of wet grain," explains Hayes, professor, Crop Science, Oregon State University. "Hulls are insoluble dietary fiber. They are not food for yeast. This could impact brewing and distilling efficiency."

Losing the hull at harvest means food processors don't have to grind it away to produce pearled barley. The grinding also strips out part of the nutrient rich bran. Naked barley retains all the bran, retaining its whole grain status and attributes.

Hayes and other researchers have been developing naked barley varieties and uses for 10 years or more. Buck, the project's first pure line of naked winter barley, is high yielding with less need for fertilizer and water than wheat. It will go to foundation seed producers this fall.

"Buck naked barley has an optimum level of beta-glucan, a soluble dietary fiber that lowers cholesterol and aids digestion," says Hayes. "If the beta-glucan level is too high,

it complicates things for animal nutrition and brewing, but Buck meets food, feed, and brewing needs."

Hayes prefers starting his day with flaked naked barley. He shared some with FARM SHOW. Prepared like oatmeal, the barley retains its shape and presents a cleaner, less creamy or mushy texture than oatmeal.

Any whole grain baked goods, porridges, grits and cereals can be made from naked barley. The only thing lacking, Hayes adds, is a clear standard for the grain and flour to allow bakers and others to make more use of barley.

"Naked barley has been around for 10,000 years, but we didn't have any varieties selected for the Pacific Northwest," says Hayes. "Buck is the first, and it has also done well in field trials in the upper Midwest and New York."

Other varieties in the pipeline include one that yields better than Buck and has better disease resistance.

The OSU Barley Project research team is working with the food and beverage industry on products that could use Buck and future introductions. In addition to naked barley brewed beers, the grain can also be roasted like coffee beans, almost to a carbonized level. It is then brewed as tea.

"Roasted barley tea is popular in Asia," says Hayes. "It is served hot or cold and is available in vending machines in Japan. I like



Buck is a "naked" winter barley that loses its hulls at harvest. Photo shows one kernel of covered barley at far right.

mine as a sun tea."

Tea producers in Oregon and British Columbia are now working with Buck, and Hayes expects to see other uses beyond baking, brewing and tea.

"Covered barley has had a bad rap in the poultry industry because of excess beta-glucan," he says. "Our work with naked barley with modest beta-glucan was able to replace a significant amount of corn in poultry rations."

If FARM SHOW readers want to experiment with their own naked barley, they can request a sample of the Oregon Naked Barley Blend. It is derived from 33 crosses of 28 different parental lines and 40 different grandparental lines. The diverse germplasm can be planted winter or spring and left to natural selection or selected and replanted as individual lines. For samples of the blend, visit <https://barleyworld.org/onbb>.

Contact: FARM SHOW Followup, Patrick Hayes, Barley Project, 253A Crop



Photo shows sprouted naked barley. Buck will be delivered to foundation seed producers this fall.

Science Bldg., Oregon State University, Corvallis, Ore. 97331 (ph 541 737-5878; patrick.m.hayes@oregonstate.edu; <https://barleyworld.org>).

He Collects And Sells Cupolas

Most people think the fancy cupolas on top of old barns are just ornamental decorations. Collector Richard Mayers knows that these amazing pieces of architecture had a job to do - efficiently ventilating buildings and drying hay.

"It's amazing how well they worked without using electricity. I want to preserve as many as I can," he says, standing amid cupolas scattered around his Albany, Minn., homestead.

"When farmers first started installing them on barns, it was because they didn't have the equipment needed to dry hay in the field. It was often loaded into barns when it was still too moist," Mayers says.

The barrel of a cupola acts like a vacuum that sucks moisture and air out of the hay stored in the barn's loft. The taller it is, the greater the drawing power. Some barns needed as many as 4 cupolas to get adequate ventilation. They were eventually replaced with electrical ventilation systems, though some architects add them to new barns and homes for architectural design and sometimes function.

Mayers has collected cupolas for 35 years after attending an auction where a \$22 bid won two cupolas. At first he thought it was too much, but then recognized their historic significance, artistic designs, and that few people collect them. Since then he's become a cupola advocate, paid up to \$400 for one and bought, fixed up and sold many. For example, he sold 16 cupolas including 3 identical 12-ft. King cupolas to an Upper Michigan customer setting up a Pioneer Village on a farm with eight barns.

Mayers currently has about 50 cupolas including his biggest one - a 13 1/2 ft. LaCrosse cupola that was part of a collection of weathervanes, lightning rods and two other cupolas he purchased. Some cupolas were purchased with sweat equity, like the one he and helpers chopped out with axes after a barn collapsed in a snowstorm. It was a lot of work, but it was worth saving the cupolas from being burned with the barn, Mayers says.

In taking down metal and wooden cupolas



Photos by Bill Vossler



Richard Mayers collects both wooden cupolas and metal ones, and has been at it for more than 35 years.

he learned firsthand how they were installed. Cheaper ones were cut to the right angle by carpenters and installed on the roof before it was shingled. Better-built cupolas were fit into the barn rafters. That made them sturdier in the wind, but harder to remove.

He invites folks interested in cupolas to contact him.

Contact: FARM SHOW Followup, Richard Mayers, Albany, Minn. (ph 320 845-2526; 320 333-2526 cell; weathervane@albanytel.com).



Ground-driven Berry Binder can harvest Haskap trees 4 to 8 ft. tall.

Berry Binder Harvests Haskaps

Pat Robertson's friend, Hamish Graham, started growing haskap berries and needed a harvester to bring in the berries. So Robertson built one in his farm shop to harvest trees that are about 4 to 8 ft. tall. He calls it the Berry Binder because like the old grain binders that were ground-driven, the machine uses ground drive to run its conveyors.

"This means you need less hydraulics to run the machine. All that is needed is a small tractor with the hydraulic capacity to supply roughly 5 to 6 gal. of hydraulic oil per minute," he says. "This runs the rotor with fingers that shake the fruit of the bush and the suction fan for removing leaves and twigs from the fruit. The large conveyor is raised and lowered with a 12-volt actuator, and both ground-driven conveyors are engaged and disengaged with a 12-volt actuator."

"We harvested part of a 50-acre field and

took off about 13,000 lbs. of haskaps," he notes. "The machine travels around 1/2 to 1-mph, so it's capable of harvesting a lot of fruit in an hour. It is also very easy to clean at the end of the day with a pressure washer. It takes only minutes."

The cost of the machine is not set. Interested buyers should contact him.

"We have not harvested raspberries or small Saskatoon bushes with it yet, but feel it would do nicely with both - especially Saskatoons," Robertson says. "We would like to get some of these machines out to some growers for next season."

He is also in the process of building a larger model with no pto required.

Contact: FARM SHOW Followup, Berry Binder, Pat Robertson, Box 212, Birch Hill, Sask. S0J 0G0 Canada (ph 306 961-2102; patrobertsonbh@sasktel.net).