



Sunshine BARLEY Ready to Grow

BY NANCY TARNAI

Researchers at University of Alaska Fairbanks have developed an early-maturing, non-waxy barley that is specifically adapted to northern climates.

A new variety of barley is nearly ready for public use in Alaska. The University of Alaska Fairbanks School of Natural Resources and Agricultural Sciences, Agricultural and Forestry Experiment Station are releasing it. This “naked” barley, dubbed Sunshine by researchers, is a hullless type featuring a tough inedible outer hull that loosely adheres to the kernel.

Hullless barley is not truly without a hull, but is so called because this type of barley requires little or no processing to remove the hull, as it is attached so loosely to the seed that it easily falls off during harvesting. Research that eventually led to the creation of the variety Sunshine began in 1993—barley has been studied at AFES since practically the beginning of work at the station. Research Assistant Bob Van Veldhuizen has been working on the new barley variety for many years, with

other researchers on the quest to create a hullless variety for Alaska conditions along the way. Steve Dofing started the process fifteen years ago and then Charles Knight took up the work. Using Thual as the parent seed, Dofing crossed the barley with a Finnish variety (JO1632) to improve straw strength, as Thual tended to produce weak stalks which fall over in the field, scattering the grain on the ground.

Dofing spent many days peering through microscopes to learn everything he could about all aspects of the grain. Once the trials passed the greenhouse research phase, fields were planted at the Fairbanks Experiment Farm, the Matanuska Experiment Farm in Palmer, and the Delta Junction Field Research Site.

This early-maturing, non-waxy barley is specifically adapted to northern environments. Sunshine possesses high grain yields of nearly 2,500 pounds per acre and good test weights of 57 pounds per bushel.

Kitchen tests followed the field trials, with Cooperative Extension Service testing twelve barley varieties. Nutrition expert Kristy Long determined that Sunshine was indeed a marketable product, easy to mill, with a nutty flavor, and containing an abundance of nutrients. Once farmers decide to grow the product, they should find that compared to the price of hulled barley varieties (\$100 to \$200 per ton), Sunshine should bring in \$5 to \$10 for a one-pound bag.

“We want to show growers the possibilities of uses for Sunshine barley,” Van Veldhuizen said. “In Alaska you almost have to create the product yourself as we don’t have industries to do it.” He foresees some demand for the grain from health food enthusiasts. “I doubt there will be 100,000 acres of it in Alaska but I see a niche,” he said. “There will be small acres, small plots. And the demand might increase once people see it’s great.” Another plus for barley is that the flour is much lower in gluten than wheat, a plus for people

with certain allergies, but it is not entirely gluten-free.

An official announcement of the new crop will appear in the Crop Science journal and a publication will be prepared by AFES. Foundation seed will be available through the Plant Materials Center, Alaska Department of Natural Resources in Palmer. Breeders’ seed is maintained by AFES.

Since the barley was announced publicly, there has been an outpouring of interest from growers both in and out of Alaska. Van Veldhuizen has been answering questions and taking names for those who want trial seed once it is released.

In the meantime, Van Veldhuizen is anything but bored; he has already developed a new and improved breed of sunflower (Midnight Sunflower) for Alaskans and is immersed in researching organic amendments to soil, fishmeal and fish/peat composting, and testing for many new plant varieties. ●

About the Author

Nancy Tarnai is the Public Information Officer for the School of Natural Resources and Agricultural Sciences at the University of Alaska-Fairbanks.

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Pictured: Bob VanVeldhuizen, Sunshine Barley

