Oregon State University OREI Project

Multi-use naked barley for organic systems: This project is supported by a USDA-NIFA-OREI grant. See more at the <u>eOrganic multi-use barley web page</u>.

Rationale and goal:

Organic growers need new crops, markets, and rotation options supported by varieties that are developed specifically for organic conditions. The long-term goal of this research project is to provide organic gardeners, growers, processors, and consumers with an alternative crop, food, and raw material that will be economically rewarding and sustainable.

Outputs:

In this project we will test available naked (hull-less) varieties and germplasm and we will create a framework for breeding the next generation of varieties with a modest level of β -glucan that will meet FDA guidelines for soluble fiber in human diets, and also be suitable for feed use and brewing.

Development, assessment, and participatory breeding of naked multi-use barley will be conducted in five representative regions: Pacific Northwest (OR, WA), Upper Midwest (MN, WI) and North East (NY). Three classes of germplasm will be used:

- a composite targeted to K-12 students and gardeners
- a large diversity panel to apply genetic data to improve barley for organic systems
- a multi-regional trial to identify varieties for release.

We will assess germplasm under organic conditions in school and home gardens, university research stations, and on-farm trials. We will evaluate agronomic, food, feed, malting, and brewing performance. Workshops will educate stakeholders on best management practices and processing procedures. We will quantify the economic and environmental benefits of organic naked barley production and products. Our outreach efforts will familiarize students, gardeners, growers, processors, and consumers with the benefits of naked barley varieties and provide guidance for capitalizing on the advantages these varieties can offer.

Read the full project narrative here.

See our latest webinar on eOrganic giving some background on multi-use naked barley here.

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