OSU introduces new hard white wheat variety

Oklahoma producers interested in taking advantage of a robust hard white wheat market will be in an excellent position to do so with the release of Stardust, a new variety developed by the Oklahoma State University Division of Agricultural Sciences and Natural Resources.

Stardust, a new hard white wheat variety, could lead to Oklahoma claiming more markets for wheat grown in the state.

Stardust is the first hard white wheat variety released by OSU since OK Rising in 2008.

The new variety, whose parentage includes OK Rising, features an improved level of sprout tolerance with agronomic capabilities and yield potential comparable to some of OSU's most popular hard red varieties.

Its quality characteristics and lighter brancoat make it a strong and versatile choice for bread baking.

"Stardust will provide our north central Oklahoma wheat farmers, in particular, the ability to produce hard white wheat locally and potentially capture more markets for Oklahoma wheat," said Jeff Edwards, head of the OSU Department of Plant and Soil Sciences.

Consumer preference is fueling the high and increasing demand for hard white wheat. Whole grain white bread is made from hard white wheat, which allows bakers to create a whole grain product without the red color or the slightly different taste.



Also, millers can extract more flour from the grain of hard white wheat and thereby increase the efficiency of the milling process.

"Hard white wheat helps differentiate Oklahoma in regards to functionality and taste relative to the baking and milling characteristics of our wheat crop, and that is important," said Mike Schulte, executive director of the Oklahoma Wheat Commission. "Now more than ever, it is vital we develop and make available high-quality products that enhance the ability of Oklahoma wheat growers and related agribusinesses to be more competitive in today's global marketplace."

Now, there are more than 4 million bushels of hard white wheat flowing into Oklahoma, and specifically into the Enid area, by rail annually from the north for milling purposes. There is a strong possibility that number will grow thanks to cultural and governmental factors currently at play.

"We believe this market is likely to expand in a stepwise fashion because of our culture, and to some extent, our federal government, demanding more fiber-rich foods for a healthier lifestyle, especially for kids," said Brett Carver, lead researcher for the OSU Wheat Improvement Team, an interdisciplinary team of nine researchers responsible for developing Stardust.

"Many of our export markets have always preferred more white wheat, but we lacked the critical mass to meet that demand on a consistent basis," he said.

In the past, the primary issue with cultivating hard white wheat in Oklahoma has been sprouting tolerance.

"The same red tannins and other natural components that give wheat grain its red color also help prevent sprouting. When these unnecessary components are bred away, the sprout tolerance can go away as well. As a result, hard white wheat production has been confined to the high plains where rainfall after wheat has matured is less likely," Edwards said. "Stardust offers the right mix of agronomic traits and sprout tolerance to thrive in central Oklahoma."

The variety's name was inspired by a visual connection to the brighter or lighter appearance of white wheat kernels and the resulting flour, as well as by the timeless versatility of the song, "Stardust," which was composed and originally recorded in 1927 by American composer/bandleader Hoagy Carmichael.

Foundation seed for Stardust is expected to be available beginning this summer from Oklahoma Foundation Seed Stocks (www.ofss.okstate.edu).

DASNR is comprised of the College of Agricultural Sciences and Natural Resources and two state agencies, the Oklahoma Agricultural Experiment Station and the Oklahoma Cooperative Extension Service.

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