

## OSU Releases Three New Wheat Varieties



Oklahoma State University's Division of Agricultural Sciences and Natural Resources released three new hard red winter wheat varieties, Spirit Rider, Smith's Gold and Lonerider.

"Spirit Rider, Smith's Gold and Lonerider fit a strong wheat breeding tradition at OSU for excellence that extends straight from the field and into the bakery," said Brett Carver, lead researcher for the OSU Wheat Improvement Team, an interdisciplinary team of researchers responsible for developing the new varieties.

"Commercial entities already have handed down that opinion, so we can move forward knowing the hard red winter wheat class will be well represented by these three varieties."

Spirit Rider's parentage includes OK Bullet, which was bred by OSU. While carrying some characteristics of its parent, Spirit Rider offers improved straw strength, standability and yield potential. It also has good disease resistance.

A solid dual-purpose variety, Smith's Gold features excellent yield potential with strong greenbug and Hessian fly resistance as well as protection against stripe rust earlier in the spring and after flowering in the adult-plant stages. Its parentage includes Gallagher, a popular variety also developed by OSU.

Spirit Rider is best suited to north central and northwest portions of Oklahoma, including the Panhandle, while Smith's Gold will work well anywhere Gallagher thrives.

"Spirit Rider will probably appeal to growers with a desire to push the yield envelope," Carver said. "Smith's Gold can achieve the in-field excellence that Gallagher can, but more.

"Numerous experimental wheat lines have been developed with OK Bullet as a



parent," Carver said, "but Spirit Rider captures the beneficial characteristics for which OK Bullet was known, but with higher yield potential.

"Meanwhile, the name Gallagher, named for wrestling coach Edward C. Gallagher, resonates throughout OSU's athletics facilities, the campus and now the state's wheat fields, as it is currently the most popular wheat variety planted in Oklahoma.

"The name Smith's Gold was chosen to remind wheat producers this new variety carries forward the strong tradition set by Gallagher and carried forward by current coach John Smith," Carver said.

The third and final variety, Lonerider is a descendant of Duster and Billings, two other popular OSU-bred varieties. Along with exceptional straw strength, other unique characteristics of this newest variety include its short stature, very early finish and unusually large kernel size.

"Testimonial to its name, Lonerider led other entries submitted to the 2016 U.S. Department of Agriculture-Agricultural Research Service Southern Regional Performance Nursery, after averaging grain yields across sites stretching from Texas to South Dakota," said Carver, "This nursery is a public-private cooperative featuring the best germplasm from wheat breeding programs across the Great Plains."

While Lonerider is capable of thriving throughout the western half of Oklahoma as well as in neighboring states, it will perform best in the western third of Oklahoma, including the Panhandle.

"Among the varieties released by OSU going back to the days of Billings, Lonerider has the capability to go west better than any of them. Furthermore,



Lonerider appears well adapted to northwest Kansas and to areas well into Nebraska, thus we expect this variety to show resilience to a wide range of environmental conditions it's likely to experience in western Oklahoma," Carver said.

"Output from the OSU wheat improvement program is extremely cyclic and the recent bounty is more coincidental than planned," Carver said. "Not to mention each of the three newest varieties offer specific benefits or fitness characteristics.

"We will continue looking for new varieties that satisfy critical needs, particularly varieties with better than average dough strength or higher protein content and beardless varieties that can be used across the board for forage or grain," said Carver, who added the team also anticipates exploring new hard white wheat varieties that extend the sprout tolerance and yielding ability of Stardust, which OSU released in 2016.

Foundation seed for Lonerider is available to seed producers who are members of Oklahoma Genetics, Inc. Registered and certified seed classes will be available in 2018.

Spirit Rider, Smith's Gold and Lonerider are the first varieties OSU has released since Stardust, a hard white wheat variety, in 2016, and Bentley, a hard red winter wheat variety, in 2015.

Wheat is Oklahoma's largest cash crop, with more than five million acres of winter wheat sown annually. Additionally, depending on market conditions, 30 to 50 percent of the state's wheat acres will be grazed by stocker cattle over the winter months.

Currently, varieties bred by OSU account for about 50 percent of the wheat acres planted in the state. [OWC](#)