

New Wheat Varieties on the Horizon

New, prospective, wheat varieties were discussed at the Kansas Seed Industry Conference last week as farmers prepare to begin planting. The annual meeting allowed industry leaders to determine the availability of certified seed and discuss the varieties producers anticipate using in the future.

During the conference, the Plant Genetic Materials Release Committee for K-State Research and Extension held their annual meeting. The committee determined they would move forward with two wheat varieties developed by wheat breeder, Allan Fritz, and his team of colleges.

These two potential wheat varieties were approved for increase with the goal that they may be released to certified seed producers in the fall of 2014.

Daryl Strouts, President of the Kansas Wheat Alliance said, "It is very important for farmers to be aware of the upcoming varieties because it gives them an idea of what to buy and plant in the next couple years."

KS061406-LN~37 is adapted for the central and eastern parts of Kansas. It is a short-statured, early maturing, hard red winter wheat with white chaff and upright growth habit. The pedigree of this variety includes Aspen, Everest and the experimental line KS980554-12~9. In more than three years of testing, this variety has averaged 10 percent greater yields compared to Everest. This line has shown exemplary resistance to Fusarium head blight (also known as head scab) although the tolerance is not as strong the Everest variety.

Early results indicate baking quality is expected to have improved dough strength and loaf volume, but further testing is needed to verify. Baking quality performance above that of Everest will be required for it to move forward as a variety. Uniquely, should this be released, it will be added to a very short list of varieties that have resistance to both leaf and stripe rust.

KS030887K-6 is a short-statured, medium maturing, hard red winter wheat that has performed well statewide but has proven to be better in western Kansas. This variety is expected to be exceptional under irrigation. However, it is very susceptible to Fusarium head blight (head scab) making it unsuitable for eastern Kansas. It has shown good end use quality and has proved excellent test weights compared to major cultivars of hard red winter wheat in western Kansas.

This variety especially is noteworthy because it contains six genes for non-race specific adult resistance to leaf and stripe rust. As a carrier of three genes to protect against both leaf and stripe rust as opposed to just one, it is expected to have stronger resistance designed to last for several generations.

Work began on these varieties over eight years ago. From a single cross in a greenhouse, a significant amount of testing and effort have been put into developing these experimental wheat varieties.

It takes an average of five years after the greenhouse stage to select for positive physiological traits and segregate negative offspring. At least three years of yield trials, testing, and data collection are required before a potential variety can begin to gain approval to initiate foundation seed. These two experimental varieties will begin the foundation seed stage this fall.

After years of work Fritz is confident that these experimental varieties will pass the Wheat Quality Council evaluations this winter and then be recommended by the Plant Genetic Materials Release Committee to the dean of the College of Agriculture at Kansas State University to be approved for release in fall of 2014.

The Kansas Wheat Commission supports the K-State wheat breeding program through the wheat check-off. Farmers can begin to look for these new varieties in the near future.