Clemson's first harvest of ancient Southern wheat exceeds expectations

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Clemson University scientist Brian Ward and his team harvested about 145 pounds of Purple Straw seed, which was grown from less than half a pound. Credit: Scott Miller / Clemson University

The first step of an ongoing-process designed to bring a valuable

heirloom wheat back from the brink of extinction has been completed with flying colors.

Last month, Clemson University scientist Brian Ward and his team harvested about 145 pounds of Purple Straw seed, which was grown from less than half a pound. Purple Straw is the only heirloom wheat to have been cultivated continually in the South from the Colonial Period into the last quarter of the 20th century. It remained a crop wheat until the 1970s, when it was then abandoned and replaced by more productive modern hybrids.

"Thus far, it's been a complete and total success, even better than expected," said Ward, who planted and nurtured the wheat in the nutrient-rich organic fields surrounding Clemson University's Coastal Research and Education Center in Charleston. "The panicles (loose, branching clusters) turned out really great, we didn't have a problem with insects or disease. Everything worked out perfectly."

Ward planted the small amount of Purple Straw seed in late 2015. He will follow up with a second, larger planting in early October of this year that should produce more than a thousand pounds by the time it is harvested next May. He again will use a sophisticated process called System of Crop Intensification to generate those yields. After a third harvest in 2018, Ward should have several tons of seed.

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"By then, we'll have enough to dole out seed to growers who will become curators of the seed," said Ward, who recently revived another heirloom crop, the African runner peanut, in a similar fashion. "And these growers will then be able to supply the wheat to chefs and distillers. The hope is Purple Straw will eventually become widely grown across the country."

Purple Straw's fall into disfavor almost five decades ago came not from disease or infestation but rather from the rise of modern hybrid wheats and foreign introductions that were genetically designed for disease resistance, grain size and massive production using petroleum-based

fertilizers. Even if fully restored, Purple Straw will not be able to compete with these hybrids when it comes to quantity, but it will stand out admirably in terms of flavor and nutrition.

The Purple Straw bioconservancy effort has already attracted attention from a internationally recognized list of chefs and distillers who are excited about the rediscovery of such an important Southern food.

"It seems like I'm hearing from everybody," said Glenn Roberts, president of Anson Mills, a Columbia-based company that produces landrace grains on more than 100 farms across America. "But regardless of the demand for Purple Straw, the preservation of the seed must come before there can be any kind of sizable distribution. And that's the beauty of being in the orbit at Clemson University. Scientists such as Brian Ward put biosecurity above all else."

Provided by Clemson University