

ANNUAL REPORT

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Title: Grower Strip Trials for UI wheat varieties in Southeast Idaho

Personnel: Jonathon Hogge, Area Extension Educator South East Idaho
Cathy Wilson, Idaho Wheat Commission
Juliet Marshall, Ext. Crop Mgmt. Specialist (SC and E Idaho)
Jianli Chen, University of Idaho Wheat Breeder

Address: 134 E Main St., Rexburg, Idaho 83440; jhogge@uidaho.edu; 208-356-3191

Accomplishments: The grower strip trials are in their third year, and we have had mixed results. In the 2016-17 growing season we had excellent varieties from public and private companies. These trials turned out well the grower cooperators were willing to support this project through interest in expanding the hard-white wheat market. We identified what looked like a promising variety during this year's season that variety was from Lima Cereal Seeds in Canada. The variety was LCS 22-22 later to be named LCS Yeti. The other varieties we grew were also excellent but LCS Yeti seemed to mill the best and we had high hopes for this variety. The 2017-2018 growing season we again had many varieties from private industry and universities wanting to test their wheats through this project. Our growing season went well we had excellent growing weather with exceptional yields and excellent quality. LCS Yeti was again entered the trial. I believe our hopes were high for this variety, but the quality data did not match what our mills were looking for. During this growing season one of the mills in eastern Idaho that controls a large portion of the grain buying and moves wheat around the country, shared discouraging news about our trials. In short, they were not happy with us trying to expand the hard-white winter wheat market with the current varieties that we were growing. They believed the varieties were not similar enough to our hard-white springs which is what is grown in our area. The USDA classifies hard white winter and hard white spring as similar enough not to classify it as different, but our local mill does not see it that way. With that explanation our local mill has asked our seed suppliers not to sell hard white wheats to their farmers until we find a better variety. Also, those mills buying the wheat are making it difficult for our local growers to sell their wheat unless it is identity preserved. This is difficult to do for most growers because it requires a dedicated bin for the variety. All of this was transpiring during me setting up the trials for 2018-19 which I found one grower interested in trying the hard-white winters in Hamer ID, where a large portion of our potatoes are grown. After I got the trial in and upon his further inquiry, he found out the challenges with growing hard-white winters and was slightly disgruntled at the prospects of having extra marketing work to do next fall trying to find a home for these winter trials. That being explained I will share some accomplishments. We have had several universities and private companies enter varieties into the trials which is great for the University of Idaho and for developing the hard-white wheat market. We have not found the variety that is going to expand our market share yet but with this year's opportunity and the varieties entered I am hopeful this will happen. I have not put a proposal in to continue the trials until we have had some talks with the mills to determine what they are interested in. I can then take that information back to my growers who would like to participate, and we can move forward

together. I believe that Cathy Wilson is working with the mills to accomplish this and will have a direction forward soon. I will use the remaining budget to complete the 2018-2019 trials.

Projections: The information gathered so far for this project has been good for our companies that have out in varieties. Our trials have shown how the wheats will perform in 1-acre grower strip trials. The other benefit is for the grower. The grower has an easier time analyzing the wheat and how it will respond to one of his desired fields. Some of the complaints I get from growers is that they don't like 5 foot by 20-foot replicated plots to make their variety decisions from. I must explain that in order to make sure we are sharing the correct information we must do small replicated plots to determine what varieties perform best over others. My research so far has not been replicated but only observational. It's great for the grower but cannot be completely trusted statistically. Even so the growers who are interested in white winter wheat would like to see the performance on their fields. We have had some interest in growing hard white winters in areas here in eastern Idaho that have a lot of blowing soils. It has become an issue of conservation as much as production. My growers would like to plant winter wheat following potatoes on their soils that are sandy loam to aid in holding soils in place during our gusty fall days. I believe this practice would be more readily adopted if we could find the correct wheat variety that our mills could use and in turn would incentivize growers for producing it. I believe growing hard white wheats has a place in extension trials. Moving forward I need to find progressive producers that are willing to grow wheats that may or may not be available to grow in the future. Meaning it might take us a few years to find the correct variety. We need to find what the mills want and have it ready to go when the marketing opportunities open. I am aware of some Asian markets that have expressed interest in hard whites but so far, no orders have been placed. I have one trial in for 2019 and am always looking for grower cooperators I will report again to you they end of next year how this year's trials went and if I was able to find more cooperators to work with in the future.

Publications: The information I have gathered to this point will be shared in an impact statement that will be published this spring on the University of Idaho Extension Impact Statement web page.