

Moldenhauer Has Three Promising Rice Lines

Hybrid Program Taps World Collection

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r. Karen Moldenhauer, Arkansas Rice Industry Chair in Variety Development, University of Arkansas, has been working almost seven years on a new rice variety. "One line, which ends in a 1081, has had a very high yield potential the last two years. It's been in the mid 190's on an average in the Arkansas Performance Trials."

Foundation seed will be grown in 2013. "It will be available to growers in 2014 for the first time, registered in 2015 and certified in 2016."

Moldenhauer is also working on two Clearfield lines. "They are looking very promising. One or both will probably be released to BASF in 2014 so that in 2015 seed should be available to growers."

"The one is a little bit taller variety. They are both from the same cross, the one is a little taller, about 43 inches on average, and the other is about 35-36 inches on average. They both had high yield in the Louisiana Uniform Rice Regional Nursery this past year. They both did well for blast. They have fairly good blast tolerance and they both had good lodging. They have not lodged in the test. They look good in our Arkansas Performance Trials."

The taller varieties work well on hillsides. "We have several, Taggart, Templeton, Roy J, CL142 and Wells are all about 43. In Arkansas a lot of people have rice on hillsides. If we have rice on the hillside they need to have something that is a little bit taller; so that 40 to 42 is what we would like but if it's a little taller and does good, we keep it," said Moldenhauer.

"A lot of other people grow these taller varieties because they can get good yields out of them. We haven't been as successful to this point getting as high a yield out of the 35 to 36 inch tall varieties. We're working toward that and we hope to succeed. I think we have some things coming along that may give us those yields."

Moldenhauer spoke about the Arkansas rice crop. "I'm hearing that we have some pretty good yields. I haven't heard many actual yields.

I did hear of a RiceTec variety that ends in 745, across the street from our farm that was 199 dry. So it means that we're not going to have low yields this year. I'm still waiting and asking. Mostly what have been harvested so far have been the hybrids and people are pretty excited about the yields. The milling I hear is in about the mid 50's in most cases but I have heard that this last little bit is starting to drop off on those varieties. That could possibly be due to the fact that some of them were planted about the same time ready to harvest and as they go harvesting along some of those have gotten rained on and rewetted and have a little bit more fissuring in them because of the rewetting."

Moldenhauer said they are working on hybrids. "We have a new program started three years ago. We are fortunate to have Mr. Yan from China who is working with us. He worked with us back in the mid 90's as a visiting scholar. He was working in rice blast. He went back to China, became a hybrid breeder. As a hybrid breeder he learned what to look for because China is big on hybrid breeding and he knew what parentage was in varieties. He came back to the states working at the University of Arkansas, Pine Bluff on a grant after he retired, when the grant ended, he got the opportunity to work with us on hybrids. He went out and pulled in these lines, out of the world collection, and began making male sterile lines. The male steriles we have in Arkansas were developed here with material that we have free access to. Therefore, we don't owe any allegiance to China or India or anyplace. They do have some of our US germplasm in them which is also a benefit on adaptability."

Moldenhauer stated this is the first year of research on the hybrids. "This is the first year we've had any of them in any kind of yield test. So after this year we'll have some information. We don't know anything about their quality; whether it's going to be good, bad, and indifferent but, we do know we are getting somewhere."

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