

Averaged over 2006 and 2007, Clearfield XL729 has shown a 31% yield advantage over CL-161 and CL-171AR. For the same time period, no yield difference was detected between CL-161 and CL-171AR. Furthermore, CL-161 and CL-171AR produced similar yields at over 20 locations. Neither cultivar out-performed the other more than 3 to 4 bu/A. CL-161 did have an advantage to other Clearfield cultivars with respect to whole milled rice. Whole milled rice of CL-161 was 3.8% better than Clearfield XL729 and 0.6% better than CL-171AR. One disadvantage to Clearfield XL729 is that its average height was 5 inches greater than CL-161 and CL-171AR.

Clearfield XL730 and Clearfield XP745 responded comparably to Clearfield XL729 in rough rice and whole milled rice yields; however, Clearfield XL730 has more shattering potential. Considerable yield losses were observed with Clearfield XL730 due to excessive winds from Hurricane Katrina in 2005. Plant height is a disadvantage for Clearfield XP745 as it averaged 2.5 inches taller than Clearfield XL729 and 8 inches taller than CL-161. As a result, the lodging potential with Clearfield XP745 is higher than Clearfield XL729, CL-161, or CL-171AR. In two strip trials comparing CL-161 and CL-171AR, CL-161 showed more susceptibility to lodging than CL-171AR.

In comparisons of conventional cultivars, XL723 demonstrated a 14% yield advantage over Cocodrie and Wells. Whole milled rice for XL723 was 0.5% lower than Cocodrie, while Wells was 4.4% lower than Cocodrie. XL723 averaged 2 inches taller than Wells and 6 inches taller than Cocodrie. XL723 would fit well on lighter soil that has recently been land formed, as well as areas with greater blast potential.

In one year of evaluations, XP744 produced equivalent rough rice and whole milled rice yields to XL723; however a disadvantage of XP744 compared with other cultivars is that it averaged 3 inches taller than XL723 and 9 inches taller than Cocodrie.

In 2007, two trials were conducted to evaluate the use of Cruiser™, V-10170, and Dermacor™ X-100 as a seed treatment for the control of rice water weevil larvae. Each trial consisted of seed treatments of Cruiser™ at 2.05, 2.56, and 3.072 fl oz/100 lb seed, V-10170 at 2.56, 3.84, and 5.12 fl oz/100 lb seed, and Dermacor™ X-100 at 1.2, 2.4, 4.8, and 9.6 fl oz/100 lb seed. These seed treatments were compared to a foliar application treatment of Karate at 2.56 fl oz/A at 3 days following flood establishment and untreated check was also included, which received no seed treatment and foliar application.

For each treatment replication, two-4 inch soil cores were extracted at 3 weeks following flood establishment. The most effective and consistent control of rice water weevil larvae was achieved with Cruiser™ at 3.072 fl oz/100 lb seed, V-10170 at 3.84, and 5.12 fl oz/100 lb seed, and Dermacor™ X-100 at 2.4, 4.8, and 9.6 fl oz/100 lb seed.

► Expanded Capabilities Of RiceTec Hybrid Rice

Presented by Kurt Johns

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Producers push the envelope every year with methods that are outside the norm to take every advantage they can get. These growers get strange looks and many questions from other farmers, however the reasons many get these questions and the interest is because many of them have at least considered what these innovators are putting to the test. RiceTec many times works with our customers who want to try new things outside the norm.

One of the concepts RiceTec is working on with our customers is Rice Irrigation Management. There are other ways to irrigate besides the standard permanent flood. One way is intermittent flooding which is what many growers are already doing they just don't call it that. They simply cannot keep a "permanent" flood on the field due to soil type or well capacity. Another way is multiple inlet irrigation, which consists of laying poly pipe across the field and punching holes in the pipe in every paddy which

allows water to be applied to more paddies at once. This has led to increased nitrogen utilization and decreased pumping costs. A final and more on the edge method is furrow irrigation. Many growers use this means on hillsides in soybeans or corn but few have taken to it for rice irrigation. The major obstacle in furrow irrigation is in the weed control area. With better residual herbicides and more choices this is becoming less of a concern.

RiceTec has conducted furrow irrigation studies over the last several years evaluating the RiceTec hybrids versus conventional varieties in farm scale yield trials with good success. The disease package of the hybrids makes them the standout in this aspect. Farm scale yield trials or RFYTs as they are known are simply trials conducted at the grower level with normal production sized equipment versus test plot equipment. Most of these trials are conducted under flood irrigation with a few exceptions the last few years. RiceTec has conducted Rice Irrigation Management trials for the last several years on cooperators' fields and at the RiceTec research farm in Harrisburg and in Weiner and Alvin Texas. The Universities and RiceTec have compared yield, milling and water savings which have been substantial. Using RiceTec hybrids' yields have stayed economical while saving water.

Something else that is of great economic importance in the Gulf Coast region is the practice of ratooning rice. Hybrid rice is a great fit for this application as well. RiceTec hybrid rice comes back faster than conventional varieties and generally out yields the conventional varieties by a pretty good margin. RiceTec conducts several field scale yield trials in the Gulf Coast every year and we carry as many as possible into the ratoon crop. These trials are CLEARFIELD trials as well as traditional varieties and hybrids. This way we compare all available hybrids and varietal offerings to give our customers the most current information on hybrid yields available. In our trials we maintain an economic advantage every year which gives growers more for their money from RiceTec hybrids. RiceTec has in the past and is currently experimenting with ratooning in the Midsouth.

Another area of interest is late planting options for producers. Recommended planting dates (which begin March 15th in the Gulf Coast and April 1st in the Midsouth) generally produce the highest yields year in and year out, however; growers interested in following wheat with rice or following land leveling need something that performs late. Again the hybrids perform better in a more adverse situation than do other varieties. RiceTec hybrids have been tested in late plantings every year and produce very good economic returns vs varietal rice.

A final area that has been looked into over the last few years with the new drills available for sale is in row spacing. Many growers have bought wider row spacing drills for other crops and have asked about yield effect on rice. RiceTec has conducted row spacing trials with one CLEARFIELD hybrid (XL729) versus CL161. The yield advantage among the same row spacing between hybrid and variety is evident.

The trials discussed above were all targeted for the same 600,000 seeds per acre as recommended by RiceTec for the hybrids and varieties were planted at around 75 pounds per acre. The excellent tillering abilities of the RiceTec hybrids and their disease package help them to stand out in the more adverse situations. By using different irrigation methods it allows the producers to save money on water (diesel) and put ground into production that may not have been an option before. Later planting dates also allow growers to be more flexible with their rotations and make land grading a more viable option without having to grow a crop that doesn't fit as well. Ratooning allows farmers to produce yields greater on the first crop than have been possible while increasing their income on the second crop to levels not typical for conventional varieties. And finally different row spacing allows growers to plant more seed per foot of row in tougher field situations and to be able to use one drill for different crops instead of purchasing more than one drill. In short RiceTec hybrids help growers stay more profitable across environments and years than conventional varieties while also reducing some of the risks associated with rice production.