Leadership and Innovation Within the Field of Rice

RiceTec Research Organization Innovating for the Future of US Rice
Dr. Jose Re

It has been already 12 years since that earlier group of visionaries adventured to offer for sale the first RiceTec hybrid rice in the US. Looking back it seems that much more time have pass as today hybrids are a fundamental component of the US rice complex and an indispensable tool for growers striving to make a profit.

These first 12 years have seen RiceTec evolving and incrementing value with each additional released hybrid. Focusing during the earlier years in improving agronomic concerns through better lodging tolerant products and adapted management practices and moving later on to enhance grain retention we enter our second decade offering a prime set of products ready to sustain the increased productivity gains US rice growers need. In our flagship hybrid Clearfield® XL745 we have assembled a number of winning traits that supported by innovative management recommendations are bumping up US output of high quality long grain rice. We are also very excited about our just released conventional hybrid XP753 as this product is endowed to push grain yield to even higher grounds while maintaining all other positive attributes of Clearfield® XL745.

Whereas XP753 is new to the market it’s already an old story for our breeders and scientists as this combination was identified in our testing plots about three years ago. Our research community is focusing right now in developing the products and technology that may available within two, three or more years from now. Let me offer a peek on some of the things the research group is busy with right now; products that may see an opportunity in the market in the near and midterm future.

- We are making the last touches to have a parental line of XP753 available as an herbicide tolerant type which will allow the introduction of the herbicide tolerant version of XP753 within the next two or three years.
- As a result of our increased investments in technology, equipment and human resources in our grain quality lab we are gaining more understanding on key components of the “grain quality” complex. We are not only learning how to better characterize the various components but also how the genes controlling these traits and available in our germplasm can be utilized to breed hybrids fitting the needs of sophisticated industry applications, consumers and foreign buyers. We expect that within the next three or four years both Clearfield® XL745 and XP753 will be available as “improved” cooking quality options resulting in a more firm cooked rice.
- We continue working in improving the “fuzziness” issue of hybrids as parental lines that allow the development of “glabrous” or smooth hybrids have been identified. This is a long due objective we have been working with. But this one has not been an easy ride as several roadblocks needed to be cleared before we could fill with seeds the bags of those long awaited smooth hybrids. We are continuing working and putting together the pieces so as soon as possible we can offer smooth hybrids as promised.
- We are seeing a new generation of medium grain genetics reaching advanced stages of testing. These are hybrids producing a better medium, plumper grain type with yield level comparable to those of LG hybrids. Within the next three or four years we are expecting to have some of these products reaching the XP category.

RiceTec continues evolving and remain committed to fulfill our vision and gaining the privilege to be the leading supplier of hybrid rice seed and value adding traits for rice farming. The research organization is busy working in the innovations US rice growers will need to continue leading the way in the competitive domestic and overseas rice markets.
Returns With Rice Still Competitive With Other Crops

The budgets below are based on information provided by the University of Arkansas crop budgets. Seed price for RiceTec Hybrids has been adjusted to reflect spring terms. Yields for various crops are for reference only. The full budgets can be viewed at: http://www.uaex.edu/depts/ag_economics/budgets/2012/Budgets2012.pdf.

Although corn and soybean prices remain high, returns on RiceTec Hybrid rice are very competitive compared to corn returns and higher than returns received from soybeans.

When making decisions on which crop to plant for the 2012 growing season, be sure to compare RiceTec Hybrids to other crops and not just rice. The yield provided by RiceTec Hybrids makes rice more competitive to other crops than varieties.

Summary Budgets 2012

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Corn</th>
<th>Soybean</th>
<th>CL Variety</th>
<th>Conv. Variety</th>
<th>Conv. Hybrid</th>
<th>CL Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield (bu/Ac)</td>
<td>150</td>
<td>45</td>
<td>140</td>
<td>140</td>
<td>175</td>
<td>175</td>
</tr>
<tr>
<td>Price ($/bu)</td>
<td>6.00</td>
<td>11.75</td>
<td>5.85</td>
<td>5.85</td>
<td>5.85</td>
<td>5.85</td>
</tr>
<tr>
<td>Total Crop Revenue</td>
<td>900.00</td>
<td>528.75</td>
<td>819.00</td>
<td>819.00</td>
<td>1023.75</td>
<td>1023.75</td>
</tr>
<tr>
<td>Net Operating Expenses</td>
<td>598.71</td>
<td>321.36</td>
<td>702.08</td>
<td>647.95</td>
<td>707.09</td>
<td>739.29</td>
</tr>
<tr>
<td>Returns to Operating Expenses</td>
<td>301.29</td>
<td>207.39</td>
<td>116.92</td>
<td>171.05</td>
<td>316.66</td>
<td>284.46</td>
</tr>
<tr>
<td>Capital Recovery &amp; Fixed Costs</td>
<td>69.13</td>
<td>56.59</td>
<td>102.16</td>
<td>102.16</td>
<td>102.16</td>
<td>102.16</td>
</tr>
<tr>
<td>Total Specified Expenses</td>
<td>667.83</td>
<td>377.94</td>
<td>804.24</td>
<td>750.11</td>
<td>809.25</td>
<td>841.45</td>
</tr>
</tbody>
</table>

Returns to Specified Expenses | 232.17 | 150.81 | 14.76 | 68.89 | 214.50 | 182.30

*Adapted from the University of Arkansas 2012 Crop Enterprise Budgets found at: http://www.uaex.edu/depts/ag_economics/budgets/2012/Budgets2012.pdf.

*Does not include land costs, management, or other expenses and fees not associated with production.

2012 Planting Recommendations and Stand Guarantee Policy

RiceTec hybrids adapt well planted early or late. However; planting in April in the Midsouth and March in southern Louisiana and Texas maximizes yield potential. RiceTec hybrids should be planted no earlier than April 1st in the Midsouth and March 15th in the Gulf Coast and when the soil temperature is 65°F or greater at planting. Following these guidelines ensure you can maximize yield potential without risking stand establishment. Not following recommended planting dates mentioned above will void RiceTec's stand guarantee policy and replant seed will not be provided free of charge.

The standard RiceTec hybrid seeding rate is 450,000 seeds/acre or 10 seeds/sq ft. to reach the target stand of 6-7 plants/sq ft. Recommendations for some products may vary from the standard; specific seeding rates for each product will be printed on the seed bag. Seeding rates may need adjusting for specific field conditions, cultural practices, and planting dates. Please contact your local RiceTec representative to discuss possible seeding rate adjustments.

For stand concerns not related to seed quality but rather due to “Acts of God” e.g. flooding or water standing as determined by a RiceTec Technical Services Representative, RiceTec will offer for planting in 2012 replant seed (subject to availability) at no cost on 50% of those same replant acres at our recommended seeding rate as long as at the same time the other 50% of the replant acres are purchased at list purchase price at our recommended seeding rate. The full replant policy can be viewed at www.ricetec.com.
Pre-Planting 2012

Drill Calibration is Key to Achieving a Proper Stand

Proper drill calibration is a key aspect of getting your rice crop off to a good start. Drill settings, seed bed preparation, and ground speed during planting are important factors to reach target seed populations. The chart below has been formulated to assist you in finding a starting point in calibrating your drill for our base recommended seeding rate of 450,000 seeds per acre. The chart includes a cog measurement in addition to a suggested drive speed and notch setting by row spacing. The measurements are obtained by measuring the exposed portion of the cog on both the inside and outside of the feeder cup. For more information and instructional videos, go to our website at www.ricetec.com.

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**Starting drill settings to plant 450,000 rice seeds/acre**

<table>
<thead>
<tr>
<th>Row Spacing (in.)</th>
<th>Drive Speed</th>
<th>Notch Setting</th>
<th>Cog Measurement Inside (millimeters)</th>
<th>Cog Measurement Outside (millimeters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Plains</td>
<td>8</td>
<td>1</td>
<td>53</td>
<td>31</td>
</tr>
<tr>
<td>John Deere</td>
<td>7.5</td>
<td>1/2</td>
<td>27</td>
<td>19</td>
</tr>
</tbody>
</table>

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1. Use the slowest possible drive setting.
2. Set the drill according to the recommended starting point (Table above).
3. Fine-tune calibration in each 10 foot section of the drill by:
   - **Recording the circumference of the drive wheel and row width.**
     1. Priming seed cups:
        1. Pour enough seed to cover 5 cups.
        2. Remove seed tubes from the bottom of the hopper box. Make sure that the seed tubes removed correlates with the cups that are covered with seed.
        3. Turn drive wheels enough to prime the seed cups. It is very important that seed is coming out of each open seed cup. Be sure that there is always seed covering the cup.
   - **Calibrating drill to suggested seed count per row foot:**
     1. Turn the wheel a minimum of 15 revolutions while catching the seed from the 5 open cups.
     2. Weigh the seed caught and figure a preliminary number of seeds per row foot as indicated in the drill calibration worksheet.
     3. If calibration is within one seed per row foot of target, count the seed and calculate final calibration by seed count.
4. **Verify calibration in the field!**

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Interactive drill calibration worksheet available at www.ricetec.com

Drill calibration is a service provided by RiceTec and is not a guarantee of achieving target seeding rate. It is the responsibility of the customer to routinely check behind the drill for proper seeding rate.
RiceTec Service Contacts

Technical Services

District 1  Barry Barnett  870-273-4988
District 2  Steven Gann  870-243-4703
District 3  Kurt Johns  870-243-4696
District 4  William Hutchens  870-273-9291
District 5  Whitney Jones  501-516-6904
District 6  Garrison Hardke  501-772-1715
District 7  Jeff Branson  870-578-8436
District 8  Jay Burchfield  662-402-2781
District 9  Cullen Minter  337-499-6498
District 10  Derrol Grymes  281-381-9371

Sales

Districts 1 - 2 DJ Shipman  870-243-2603
Districts 3 - 4 Brian Graf  870-273-8221
Districts 5 - 6 Jeff Reeves  870-919-6944
District 7  Wes Long  870-830-0160
District 8  Jeff Mosley  662-719-1034
District 9  Mike Worthington  337-263-4297
District 10  Mark Spilman  281-389-3527

Customer Services

Toll-free  Rebecca Wright  877-580-7423

Email addresses for RiceTec representatives available at www.RiceTec.com