

SDI Cotton Variety Performance under Different Management Scenarios (Field 2)

John Gannaway, Lyndon Schoenhals, Valerie Morgan, Randy Boman, James Bordovsky

Objective: The objective was to compare cotton lint yields and values of twenty four varieties when managed under both *High* and *Normal* input scenarios irrigated by subsurface irrigation. Differences in management treatments are described in the previous report.

Results: The 2005 variety test was abandoned due to a severe hail event on 16 June. However, data from 2002-2004 crop years were used to compare yield and in-season irrigation water value of three popular “picker”, and four common “stripper” cotton varieties under the *Normal* and *High Input* scenarios. Lint yields of the stripper varieties (PM2280BG/RR, PM2266 RR, All-Tex Atlas RR, and PM2326RR) tended to reach maximum



Fig. 1. Planting the small plot variety test in the SDI management study.

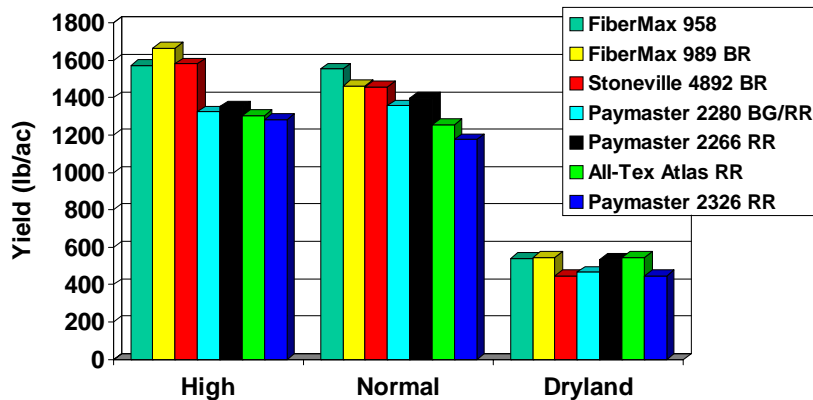


Fig. 2. Average SDI cotton variety lint yield resulting from *Normal* and *High Input* management scenarios, 2002-2004, Helms Farm, TAES.

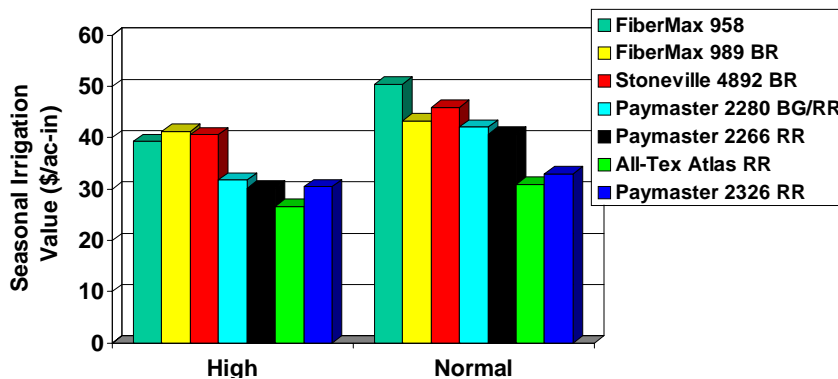


Fig. 3. Average SDI cotton variety seasonal irrigation value resulting from *Normal* and *High Input* management scenarios, 2002-2004, Helms Farm, TAES.

yield at the *Normal Input* level, while the picker varieties (FM 958, FM 989BR, and ST4892BR) continued to further increase yield with *Higher* levels of inputs (Figure 2). However, considering the value per unit of in-season irrigation, the picker as well as some of the stripper varieties the *Normal Input* level were equal to or greater than the irrigation values of the *High Input* picker varieties. Cotton variety selection will make a critical impact on obtaining the highest value for our limit water resources.