

## Variety and Seeding Rate Performance of Large Scale SDI Cotton Production

Wayne Keeling, Jim Bordovsky, Randy Boman and John Everitt;

### Methodology:

Plot Size: 4 rows by 1600 feet, 4 replications  
 Planting Date: May 10  
 Seeding Rates: High (80,000 seed/A)  
 Med (56,000 seed/A)  
 Low (32,000 seed/A)  
 Varieties: FiberMax 989 B2R  
 FiberMax 960 B2R  
 Stoneville 4646 B2R  
 Delta Pine 424 B2R  
 Herbicides: Prowl – 1.5 qt/A  
 Roundup WeatherMax –  
 22oz/A POST  
 Fertilizer: 90-75-0  
 Irrigation in-season: 5.3 in.  
 Harvest Date: November 29



Figure 1. Cotton plots at harvest of variety x seeding rate study, Helms Farm, 2005.

**Results:** Four Roundup Ready/Bollguard II stacked gene varieties (FM 989 B2R, FM 960 B2R, ST 4646 B2R, DP 424 B2R) were compared across subsurface drip irrigation (SDI). Additionally, two varieties (FM 960 B2R and ST 646 B2R) were planted at three seeding rates. The trial was planted on May 10 and was severely damaged by hail on June 16. The decision was made not to replant and the damaged plants made surprisingly rapid regrowth. Some stand losses occurred and plant growth was variable. Plots were harvested on November 29, and samples were collected for ginning and fiber analysis. The highest lint yields and gross revenues were produced with FM 989 B2R and highest loan value was achieved with FM 989 B2R and FM 960 B2R (Table 1). Similar yields with FM 960 B2R were produced with all three seeding rates. Increased yields were achieved for ST 4646 B2R with the highest (80,000 seeds/A) population (. Highest gross revenues were produced at the medium seeding rate of FM 960 BR. Highest gross revenues with ST 4646 B2R were produced with the highest seeding rate.

Table 1. Effects of variety and seeding rate on lint yields, loan value, and gross revenue of SDI cotton at Helms Research Farm, 2005.

Varitey	Seeding Rate 1000 plts/A	Lint Yield lb /A	Loan Value \$/lb	Gross Revenue \$/A
FM 960 B2R	32	1082 a	0.549 ab	594 b
	56	1107 a	0.553 a	612 a
	80	1076 ab	0.509 d	548 bc
	56	1107 b	0.553 ab	612 b
ST 4646 B2R	32	851 c	0.494 e	420 d
	56	991 bc	0.508 d	504 c
	80	1113 a	0.534 c	593 b
	56	991 cd	0.508 d	504 cd
FM 989 B2R	56	1247 a	0.561 a	699 a
DP 424 B2R	56	903 d	0.516 cd	465 d

Means followed by the same letter within a column are not significantly different.