



Result Demonstration/Applied Research Report

2006 HOWARD COUNTY ROUNDUP READY COTTON VARIETY TEST

Cooperators: Rob Haney

Tommy Yeater, CEA-AG, Howard County, Big Spring, Texas
Dr. Billy E. Warrick, Professor and Extension Agonomist

SUMMARY

Six cotton varieties were planted to compare fiber yield and quality characteristic under similar irrigated production conditions. Deltapine 434 RR, FiberMax 960 RR and Deltapine 147 RF were the highest yielding varieties in this test. FiberMax 960 RR had the highest loan value at \$0.549 cents per pound. This is only one years result and continued testing is recommended before making a significant switch to a new variety.

PROBLEMS

Several new varieties of cotton become available each year and when combined with the varieties already available makes planting seed selection increasingly difficult. Producers need local data to help in selecting adapted high yielding varieties with desirable fiber quality traits. Higher strength and longer staple are the primary fiber quality characteristics they are looking for.

OBJECTIVE

With improved varieties being introduced each season, testing is a necessary part of any farming operation. This field test was established to compare new and traditional varieties. The main focus will be to find those varieties that provide high lint yield with desirable fiber traits. Since some varieties have a limited success within a narrow range of production conditions, local testing is necessary and justified. This test will allow area producers to determine if new varieties being introduced are more productive than what they currently planting. Also, it will provide area producers with the opportunity to examine the differences in plant development between the old and new varieties.

MATERIALS AND METHODS

Cooperator: Rob Haney
 County Precinct: 2
 Planting Date: June 6, 2006
 Planting Rate: 8.5 pounds per acre
 Row Width: 32 inches
 Planting Pattern: 2-in-1-out
 Previous Crop: Cotton
 Irrigation: None
 Fertilizer: 100 pounds of 28-0-0-5 applied prior to planting
 Herbicide: 1 pint of Treflan preplant incorporated followed by a broadcast application of Roundup during the growing season at one quart per acre.
 Insecticide: None
 Soil Type: Loam
 Acres of Each Variety Planted: 0.65acre of each variety (8 rows that were 1320 feet long)

The test plots were stripper harvested to determine the yield per acre. A two pound sample was taken and ginned at the Monsanto facility located east of Lubbock to determine the percent turnout of lint and seed. A sample of the ginned cotton was taken to the International Textile Center in Lubbock to have fiber properties determined using a HVI classing machine.

RESULTS, DISCUSSION AND ECONOMIC ANALYSIS

As seen in Table 1, the yields in this plot ranged from 773 pounds per acre to 519 pounds per acre. Deltapine 434 RR, FiberMax 960 RR and Deltapine 147 RF were the highest yielding varieties in this test. FiberMax 960 RR had the highest loan value at \$0.549 cents per pound.

Table 1. Data from Rob Haney's 2006 Roundup Ready Cotton Variety Test (Howard County)

Variety	Yield Per Acre				Fiber Quality						CCC Loan Value	Lint Gross Return (\$/acre)	Seed Gross Return (\$/acre)	Total Gross Return (\$/acre)
	In Pounds		% Turnout		Color- Leaf	Fiber Length (staple)	Mic	Strength (gram/tex)	Uniformity					
	Lint	Seed	Lint	Seed										
Deltapine 434 RR	773	1159	34.4	51.6	212	33	4.6	25.4	82.4	50.90	393.28	84.03	477.30	
FiberMax 960 RR	716	1075	31.9	47.9	112	34	4.9	28.4	81.9	54.90	393.36	77.92	471.27	
Deltapine 147 RF	694	1041	32.9	49.4	112	33	4.4	32.3	81.3	52.50	364.44	75.49	439.93	
FiberMax 800 RR	664	996	30.5	45.7	212	33	4.5	30.6	83.5	52.85	351.08	72.24	423.32	
Deltapine 494 RR	685	1027	34.1	51.2	212	32	4.4	25.7	82.5	50.70	347.13	74.46	421.59	
AFD 3511 RR	519	778	30.5	45.7	212	34	4.5	25.6	81.2	54.90	284.92	56.44	341.36	

Seed income calculated using a price of \$145 per ton.

ACKNOWLEDGMENTS

The authors would like to thank Rob Haney for cooperating in this demonstration.

Also a word of thanks to the seed companies that provided cottonseed, they include:

Delta and Pine Land Company who provided Deltapine 434 RR, Deltapine 147 RR and Deltapine 494 RR

Bayer CropScience who provided the FiberMax 960 RR, FiberMax 800 RR and AFD 3511 RR

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

Extension programs serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability or national origin.

The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating