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UF UNIVERSITY of FLORIDA
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2005 Cotton Variety Trials in Florida: Early-Maturing Cultivars[1]

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Early Season Cotton Variety Trial

Cotton variety trials were planted in conventional tilled soil with a cone planter at the seeding rate of 80 seeds/ 25 linear feet of row with 36" row spacing on May 18, 2005.

Twenty nine early season cotton varieties were planted. This followed a bedded application of 10N 28P 87K that was applied on March 21. The following is a summary of how the plots were managed throughout the 2005 growing season:

3-21-05 Bedded 10N 28P 87K

5-18-05 Planted

5-23-05 PRE Application - Prowl 1.5pt, Cotoran 1.5 pt, Glyphomax 2 qt,

Staple 8 oz, Orthene 4oz

6-27-05 200# 3-7-28 50# Kmag 50# MOP (30 units) 70# N in irrigation

6-29-05 0.1oz Acre Envoke

7-15-05 70# N in irrigation.

7-20-05 4oz Bidrin 1# Solubor 10oz Pix

7-27-05 1qt Caparol 1qt MSMA

8-13-05 16oz Pix 4oz Bidrin 4oz Ammo 2# 20-20-20

10-25-05 Harvest

Cotton plots were harvested on October 25, 2005. These were spindle picked by a Case International 1822 two row cotton harvester.

Management Considerations for Maximum Yields

1. **Choosing the right variety:** In 2005 there were 69 varieties; this is a lot of varieties to choose from. Special considerations should be made in regards to desired traits and your own farm. When making variety selections consider results from various locations from multiple years of

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University trials, and look for consistent performers.

2. **Conservation Tillage:** Strip-Till planting decreases erosion, increases soil organic matter, soil moisture, and improves soil texture which in turn may lead to increased yields. Cover crops should be killed 3 to 4 weeks prior to planting to reduce insect problems and prevent soil moisture depletion.

3. **Planting dates:** Optimum planting ranges from April 20 to May 20. Consider planting early and mid-full season varieties at the same time in order to stagger harvest dates.

4. **Target Plant Population:** Desired plant population is 2-3 plants per foot. In order to achieve this plant 3-4 seed per foot.

5. **N fertilization:** Both insufficient and excess nitrogen can lead to fruit shed or boll rot. Nitrogen should be applied near the row, early in the season at first squaring. Two applications may be made on sandy soils (at squaring and 3 weeks later). The recommended rate of nitrogen ranges from 50 to 90 lbs N/A on most soils.

6. **Weed control:** Early season weed control is critical no matter what technology that you decide to use, and has proven to increase yields. Newer varieties that allow over the top herbicide applications all season long proved themselves as top yielders but still need to be treated for early season weeds, if applications are delayed until thresholds are maximized, the technology proves to be no advantage.

7. **Insect Control:** Effective scouting should be implemented with timely and proper insect management of bollworms, armyworms, and stinkbugs is critical.

8. **Timely defoliation and harvest:** If the defoliation is delayed until 60-65% of the total crop to be harvested is open, 90% of the crop can likely be harvested within two weeks after the application.

Results

Table 1 shows the harvest and the HVI data for the 2005 early season cotton varieties.

Table 1. Harvest and the HVI data for the 2005 early season cotton varieties

Description		Seed Cotton	Lint	Turnout	Color Grade	Leaf Grade	Ext. Matter	Mike	Length	Staple	Strength	Uni-formity	HVI Trash
Rating Unit													
Brand	Name	Lbs/Acre	Lbs/Acre										
Delta & Pine	DP 445 BG/RR	2842 a	1137 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	29 a	84 a	2 a
Phytogen	PHY 485 WRF	2812 a	1092 a	0 a	51 a	8 a	11 a	5 a	1 a	37 a	29 a	83 a	2 a
Stoneville	ST 5242 BR	2680 a	1086 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	30 a	82 a	2 a
Delta & Pine	DPLX 04Z600 DF	2713 a	1068 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Stoneville	STX 4664 RF	2535 a	1062 a	0 a	54 a	8 a	11 a	5 a	1 a	36 a	29 a	83 a	2 a
FiberMax	FMX 1003 B2LL	2645 a	1039 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Phytogen	PHY 475 WRF	2592 a	1022 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	32 a	82 a	3 a
FiberMax	FM 960 B2R	2534 a	1016 a	0 a	49 a	7 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Phytogen	PHY 370 WR	2321 a	960 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Stoneville	ST 4686 R	2362 a	956 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	30 a	83 a	2 a
Delta & Pine	DP 444 BG/RR	2413 a	955 a	0 a	49 a	8 a	11 a	4 a	1 a	37 a	30 a	83 a	2 a
Delta & Pine	DPLX 03X179 R	2358 a	954 a	0 a	49 a	8 a	11 a	4 a	1 a	36 a	31 a	83 a	1 a
Stoneville	ST 4575 BR	2398 a	953 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	30 a	82 a	2 a
Delta & Pine	DP 432 RR	2313 a	923 a	0 a	54 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	3 a
Stoneville	STX 4554 B2F	2279 a	917 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Delta & Pine	DP 454 BG/RR	2194 a	886 a	0 a	51 a	8 a	11 a	4 a	1 a	36 a	31 a	82 a	3 a

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Description		Seed Cotton	Lint	Turnout	Color Grade	Leaf Grade	Ext. Matter	Mike	Length	Staple	Strength	Uni-formity	HVI Trash
Rating Unit													
Brand	Name	Lbs/Acre	Lbs/Acre										
Phytogen	PHY 310 R	2113 a	871 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	3 a
Delta & Pine	DPLX 04Z503 DF	2093 a	857 a	0 a	49 a	8 a	11 a	4 a	1 a	37 a	31 a	82 a	2 a
FiberMax	FMX 0222 B2LL	2163 a	855 a	0 a	46 a	8 a	11 a	4 a	1 a	37 a	32 a	82 a	2 a
FiberMax	FM 989 B2R	2102 a	851 a	0 a	51 a	8 a	11 a	4 a	1 a	38 a	30 a	83 a	2 a
Delta & Pine	DP 424 BGII/RR	2195 a	846 a	0 a	54 a	7 a	11 a	4 a	1 a	37 a	29 a	82 a	2 a
Delta & Pine	DPLX 04Z602 F	2090 a	843 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Delta & Pine	DPLX 04Z603 F	2093 a	842 a	0 a	51 a	8 a	11 a	5 a	1 a	37 a	31 a	82 a	2 a
FiberMax	FMX 9166 B2LL	2095 a	829 a	0 a	49 a	8 a	11 a	4 a	1 a	37 a	31 a	82 a	2 a
Delta & Pine	DP 434 RR	2037 a	805 a	0 a	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Phytogen	PHY 425 WR	2047 a	805 a	0 a	54 a	8 a	11 a	4 a	1 a	37 a	30 a	83 a	2 a
Delta & Pine	DPLX 04Y170 BR	1926 a	781 a	0 a	54 a	8 a	11 a	4 a	1 a	37 a	30 a	83 a	3 a
Delta & Pine	DP 455 BG/RR	1940 a	780 a	0 a	54 a	8 a	11 a	4 a	1 a	37 a	31 a	82 a	3 a
Phytogen	PHY 415 WR	1914 a	763 a	0 a	54 a	8 a	11 a	5 a	1 a	37 a	29 a	83 a	3 a
LSD (P=.05)		661.4	269.9	0	4.9	0.8	0	0.4	0	0.9	2.6	1.2	1.1