



2005 Cotton Variety Trials in Florida: Mid- and Late-Maturing Cultivars¹

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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.

Mid- and Late-Maturing Cotton Variety Trial

Thirty-one mid- and late-maturing cotton varieties were planted in this trial on May 18, 2005. 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#/Acre 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/Acre applied through 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 spindle 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.

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When making variety selections consider results from various locations from multiple years of University trials, and look for consistent performers.

Results

Table 1 shows the harvest and the HVI data for the 2005 Mid-Late season cotton varieties.

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.

Table 1. Harvest and the HVI data for the 2005 Mid-Late season cotton varieties.

2005 Mid-Full OVT		Seed Cotton Lb/Acre	% Lint	Lint/Acre Lbs/Acre	Color Grade	Leaf Grade	Ext. Matter	Mike	Length	Staple	Strength	Uniformity	HVI Trash
Brand	Rating Unit Name												
Delta & Pine	DP 555 BG/RR	3223 a	0.41 a	1312 a	51 a	7 a	11 a	4 a	1 a	37 a	28 a	83 a	1 a
Stoneville	STX 6622 RF	3228 a	0.4 a	1278 ab	51 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	3 a
Delta & Pine	DP 543 BGII/RR	3173 ab	0.4 a	1278 ab	54 a	8 a	11 a	4 a	1 a	37 a	29 a	82 a	3 a
Delta & Pine	DPLX 04T126 DF	3071 ab	0.41 a	1257 ab	46 a	7 a	11 a	5 a	1 a	38 a	31 a	83 a	2 a
Stoneville	ST 6848 R	3062 ab	0.39 a	1201 ab	49 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Delta & Pine	DP 445 BG/RR	3095 ab	0.38 a	1193 ab	49 a	8 a	11 a	5 a	1 a	38 a	32 a	83 a	2 a
Stoneville	ST 5599 BR	2982 ab	0.4 a	1184 ab	46 a	8 a	11 a	5 a	1 a	38 a	32 a	84 a	2 a
Stoneville	ST 6636 BR	3080 ab	0.38 a	1169 ab	54 a	8 a	11 a	4 a	1 a	38 a	32 a	83 a	3 a
FiberMax	FM 989 B2R	3181 ab	0.37 a	1163 ab	51 a	8 a	16 a	4 a	1 a	38 a	30 a	83 a	2 a
Delta & Pine	DP 455 BG/RR	2799 ab	0.4 a	1130 ab	49 a	8 a	11 a	4 a	1 a	37 a	31 a	83 a	1 a
Delta & Pine	DP 488 BG/RR	2778 ab	0.4 a	1121 ab	51 a	8 a	11 a	4 a	1 a	37 a	30 a	84 a	2 a
FiberMax	FMX 1003 B2LL	2903 ab	0.37 a	1082 ab	51 a	8 a	11 a	4 a	1 a	37 a	32 a	84 a	3 a
Delta & Pine	DPLX 04X419 DF	2651 ab	0.4 a	1053 ab	51 a	8 a	11 a	4 a	1 a	39 a	31 a	82 a	2 a
FiberMax	FMX 9166 B2LL	2770 ab	0.38 a	1049 ab	54 a	8 a	11 a	4 a	1 a	37 a	34 a	83 a	3 a
Stoneville	STX 0509 B2F	2661 ab	0.39 a	1041 ab	51 a	8 a	11 a	4 a	1 a	37 a	32 a	83 a	2 a
Stoneville	ST 5303 R	2597 ab	0.39 a	1031 ab	49 a	8 a	11 a	4 a	1 a	37 a	30 a	83 a	2 a

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Brand	Rating Unit Name												
Stoneville	STX 6611 B2RF	2619 ab	0.39 a	1018 ab	54 a	8 a	11 a	5 a	1 a	37 a	31 a	82 a	3 a
Delta & Pine	DPLX 03X179 R	2539 ab	0.39 a	994 ab	54 a	8 a	24 a	4 a	1 a	37 a	30 a	82 a	3 a
Stoneville	STX 0510 B2F	2394 ab	0.4 a	963 ab	51 a	8 a	24 a	4 a	1 a	38 a	32 a	83 a	2 a
Stoneville	STX 0414 B2RF	2439 ab	0.39 a	957 ab	49 a	8 a	11 a	4 a	1 a	38 a	32 a	84 a	2 a
Delta & Pine	DPLX 04X436 DF	2451 ab	0.39 a	956 ab	51 a	8 a	28 a	4 a	1 a	37 a	32 a	83 a	2 a
Delta & Pine	DPLX 04X495 F	2329 ab	0.41 a	943 ab	51 a	8 a	11 a	4 a	1 a	38 a	33 a	83 a	2 a
FiberMax	FM 991 B2R	2489 ab	0.38 a	941 ab	46 a	8 a	11 a	4 a	1 a	38 a	31 a	84 a	2 a
Delta & Pine	DP 449 BG/RR	2401 ab	0.39 a	939 ab	49 a	8 a	9 a	5 a	1 a	37 a	33 a	84 a	2 a
Delta & Pine	DPLX 04Y170 BR	2323 ab	0.4 a	926 ab	51 a	8 a	16 a	4 a	1 a	37 a	31 a	83 a	2 a
Stoneville	STX 5885 B2RF	2239 ab	0.38 a	863 ab	54 a	8 a	11 a	4 a	1 a	37 a	32 a	83 a	3 a
Delta & Pine	DPLX 05X648 DR	2021 ab	0.42 a	851 ab	51 a	8 a	11 a	5 a	1 a	37 a	31 a	82 a	3 a
Delta & Pine	DP 494 RR	2077 ab	0.41 a	844 ab	51 a	7 a	11 a	4 a	1 a	37 a	31 a	83 a	2 a
Delta & Pine	DP 454 BG/RR	2061 ab	0.39 a	808 ab	51 a	8 a	11 a	4 a	1 a	37 a	31 a	82 a	2 a
Delta & Pine	DPLX 04X462 F	1954 ab	0.39 a	753 ab	49 a	8 a	11 a	4 a	1 a	38 a	32 a	83 a	2 a
Delta & Pine	DPLX 04T159 F	1868 b	0.38 a	719 b	48 a	7 a	11 a	5 a	1 a	37 a	30 a	82 a	1 a
LSD (P=.05)		721.4	0.032	306.7	5.6	0.9	13.3	0.5	0	1.5	3.1	1.8	1.2