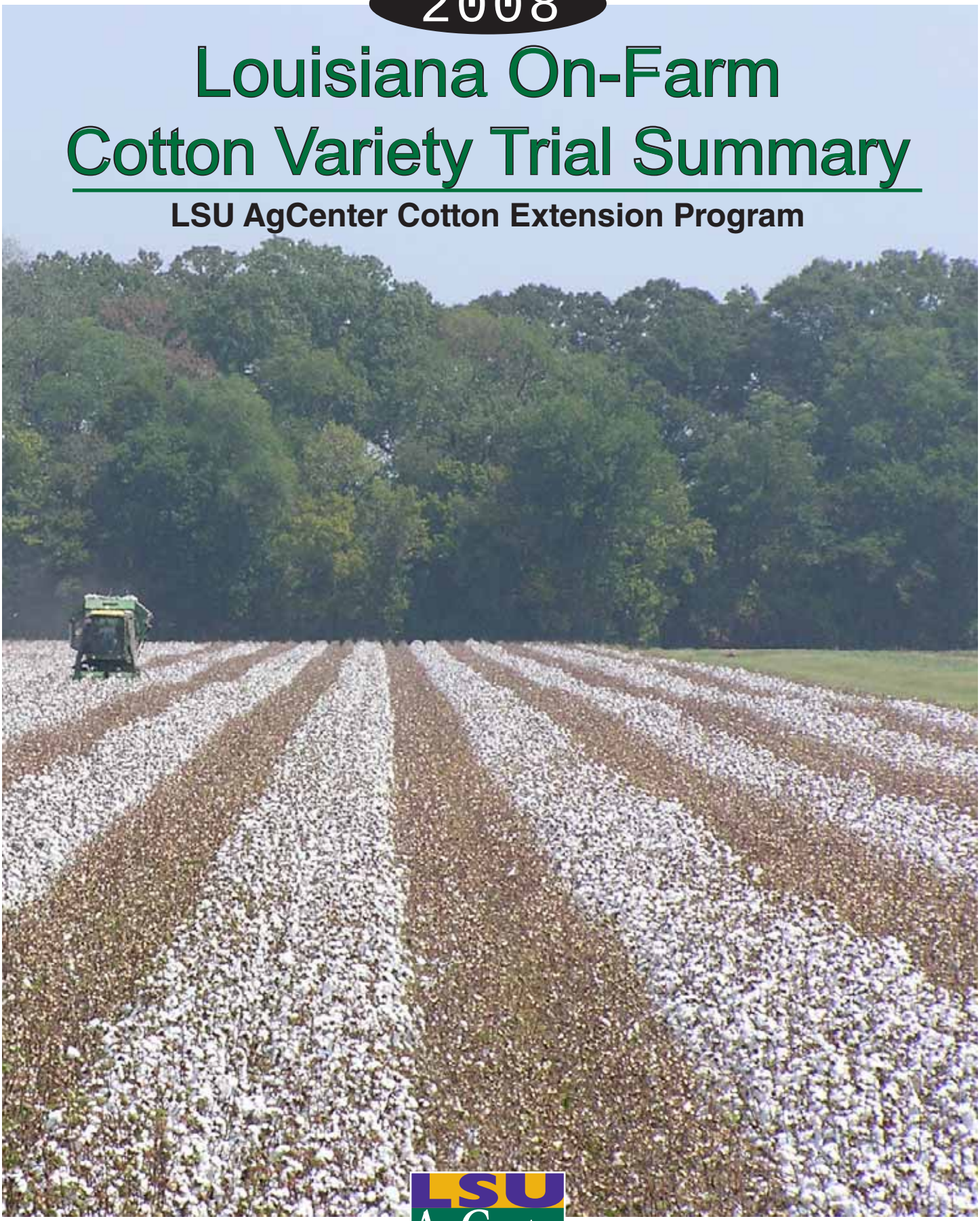
2008

Louisiana On-Farm Cotton Variety Trial Summary

LSU AgCenter Cotton Extension Program



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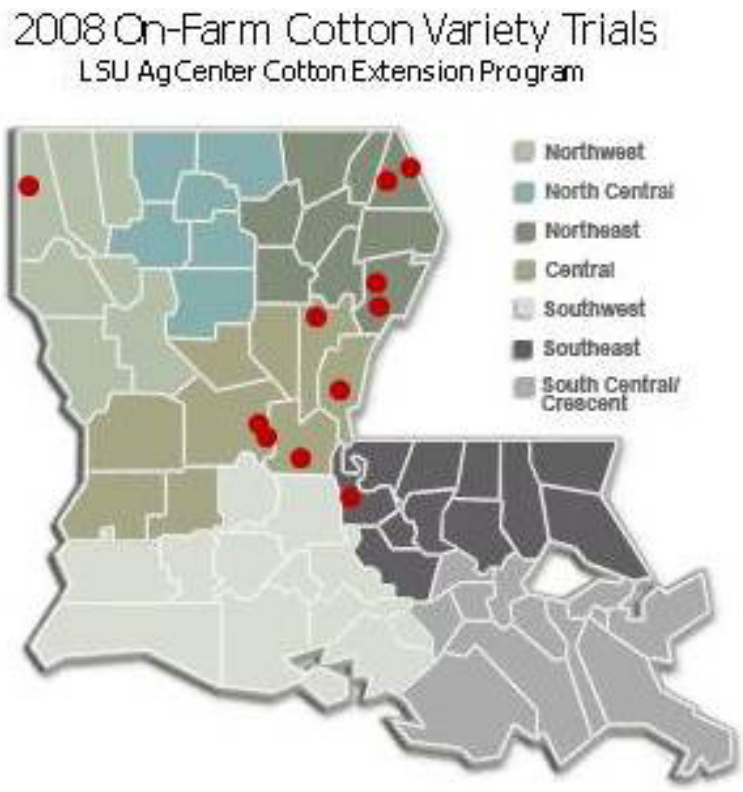
Introduction

On-farm cotton variety trials can be a useful supplement to Official Variety Trial (OVT) information and other sources of data on which to base cotton variety selection decisions. On-farm trials can be helpful in choosing a cotton variety because they represent many localities and can indicate the adaptation of a particular variety to different production areas or environments. Additionally, on-farm trials managed by the farmer cooperators reflect the performance of varieties in a commercial production system.

Data from on-farm cotton variety trials are not meant to replace or supersede results from OVTs. Cotton OVTs are conducted under relatively controlled environments and have been the standard for assessing the performance of cotton varieties for many years. However, cotton variety data reported in this publication can serve as an excellent supplement to OVT results. Cotton variety selection is a critical factor in any successful production system and growers are encouraged to consult as many data sources as possible before making a decision.

Locations and Methods

On-farm cotton variety trials were conducted in 11 locations (shown on map) in 2008 by the LSU AgCenter's Cotton Extension Program. Each location was a replicated, large-plot trial, with individual plot size of 8 to 16 rows and a minimum of 600 feet long. Trials were planted and managed throughout the season by cooperators and harvested with their equipment. The data have been analyzed by of analysis variance with mean separation by the LSD at P=0.05.



Entries

Variety entries: Varieties were selected for the on-farm trials based on several considerations including existing acreage in the state, performance in the OVTs and prospects for future expansion of acreage in the state. Representatives from agricultural consultants, LSU AgCenter field agents, cotton producers and seed companies contributed to the selection process. Using this selection system, a list of competitive varieties shown in the accompanying tables was selected for the trials.

Explanation of Data Tables

Data are reported for lint yield, lint percent, and the physical fiber properties of staple length (reported as upper half mean, or UHM, in inches), micronaire (mic), strength, and uniformity. Seedcotton samples were ginned on a 10-saw gin without drying, pre-cleaning, or lint cleaning which tends to slightly inflate lint percent and some fiber properties. However, the relative differences among varieties are of the most interest and are valid. The least significant difference (LSD) is reported along with the coefficient of variation (CV). The LSD represents the smallest value that can be used to separate two means; differences less than the LSD are likely to due to chance and field variability. A lower CV indicates less variance in the data. Seedling vigor ratings were subjective evaluations on a 1-5 scale with 1 being best and 5 being worst.

Variety Performance – Summary Across All Locations

Table 1. Performance of ten selected varieties in the LSU AgCenter On-farm Variety trials, averaged across 11 locations in 2008.

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	614	40.4	1.10	4.5	26.0	82.7
CG 3220 B2RF	603	39.8	1.13	4.6	27.6	83.4
DP 0935 B2RF	710	41.4	1.11	4.6	27.8	82.9
DP 164 B2RF	664	38.9	1.15	4.6	28.1	83.2
FM 1740 B2F	698	41.1	1.12	4.7	27.7	83.6
PHY 375 WF	634	40.8	1.12	4.5	27.7	83.0
PHY 485 WF	620	39.7	1.12	4.7	29.3	83.5
ST 4498 B2RF	628	39.2	1.12	4.5	28.8	83.0
ST 4554 B2RF	668	39.4	1.09	4.7	29.1	82.9
ST5458 B2RF	670	40.5	1.12	4.7	27.5	82.8
Mean	650	40.1	1.12	4.6	28.0	83.1
LSD (0.05)	31	0.5	0.01	0.1	0.7	0.4

AVOYELLES PARISH

Simmesport, LA
Soil Type-Clay, Non-Irrigated
Planting Date- April 24, 2008
Grower-Kent Roblin
County Agent-Trent Clark, Carlos Smith

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	450.5	42.1	1.10	4.8	24.4	82.7
CG 3220 B2RF	494.9	41.3	1.15	4.6	27.9	83.6
DP 0935 B2RF	732.8	42.6	1.13	4.7	28.1	83.5
DP 164 B2RF	768.6	40.8	1.18	4.7	27.6	83.8
FM 1740 B2F	689.4	43.3	1.17	4.9	28.3	83.1
PHY 375 WF	534.3	43.3	1.14	4.9	27.4	83.1
PHY 485 WF	557.3	41.7	1.13	5.0	29.3	83.8
ST 4498 B2RF	480.0	40.8	1.13	4.6	27.9	82.3
ST 4554 B2RF	617.2	41.3	1.14	5.0	29.8	83.0
ST5458 B2RF	550.8	42.8	1.13	4.7	28.6	83.7
Mean	587.6	42.0	1.14	4.8	27.9	83.2
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.0	3
CG 3220 B2RF	1.8	3
DP 0935 B2RF	2.2	3
DP 164 B2RF	2.3	3
FM 1740 B2F	1.8	3
PHY 375 WF	2.5	2
PHY 485 WF	2.1	3
ST 4498 B2RF	2.4	3
ST 4554 B2RF	1.6	3
ST5458 B2RF	2.1	3
$LSD_{0.10}$	0.68	1.8
CV (%)	14.72	30.42
Mean	2.07	2.65

†1=best, 5=worst

CADDO PARISH

Belcher, LA
Soil Type-Silt Loam-Irrigated
Planting Date-April 24, 2008
Grower-Sonny and Ryan Kirby
County Agent-John Levasseur

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	483.3	42.3	1.09	4.7	27.9	83.9
CG 3220 B2RF	488.0	41.5	1.14	4.7	29.5	85.0
DP 0935 B2RF	547.8	43.5	1.11	4.8	29.6	83.6
DP 164 B2RF	521.9	40.4	1.16	4.6	29.1	83.5
FM 1740 B2F	525.2	42.7	1.10	4.6	29.6	84.0
PHY 375 WF	500.7	43.4	1.10	4.7	29.3	84.0
PHY 485 WF	443.7	40.9	1.12	4.8	31.7	84.5
ST 4498 B2RF	516.6	40.3	1.10	4.5	32.2	84.1
ST 4554 B2RF	525.9	41.2	1.10	4.7	31.0	84.2
ST5458 B2RF	497.2	42.2	1.11	4.9	29.9	82.8
Mean	505.0	41.8	1.11	4.7	30.0	84.0
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.2	2
CG 3220 B2RF	2.0	3
DP 0935 B2RF	2.4	2
DP 164 B2RF	2.3	2
FM 1740 B2F	2.2	2
PHY 375 WF	2.5	2
PHY 485 WF	2.2	2
ST 4498 B2RF	2.3	3
ST 4554 B2RF	1.9	3
ST5458 B2RF	2.2	2
$LSD_{0.10}$	0.20	1.2
CV (%)	5.22	29.46
Mean	2.23	2.4

†1=best, 5=worst

CATAHOULA PARISH

Fowles, LA
Soil Type-Silty clay loam
Planting Date- June 1, 2008 after wheat
Grower-Roger Carter
County Agent-Cliff Watts

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	751.4	39.2	1.16	4.0	29.4	83.0
CG 3220 B2RF	715.5	39.8	1.17	4.2	29.5	84.3
DP 0935 B2RF	659.7	41.0	1.19	3.7	30.4	83.1
DP 164 B2RF	559.4	38.6	1.16	4.2	30.7	83.8
FM 1740 B2F	886.2	41.3	1.19	4.2	31.3	84.0
PHY 375 WF	746.9	40.6	1.15	4.1	30.7	83.8
PHY 485 WF	798.6	40.2	1.16	4.0	29.8	83.6
ST 4498 B2RF	702.1	39.6	1.17	4.3	31.0	83.4
ST 4554 B2RF	673.7	40.0	1.14	4.1	28.8	83.4
ST5458 B2RF	710.9	40.4	1.18	3.8	30.5	83.5
Mean	714.7	40.1	1.17	4.1	30.2	83.6
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	NA	NA
CG 3220 B2RF	NA	NA
DP 0935 B2RF	NA	NA
DP 164 B2RF	NA	NA
FM 1740 B2F	NA	NA
PHY 375 WF	NA	NA
PHY 485 WF	NA	NA
ST 4498 B2RF	NA	NA
ST 4554 B2RF	NA	NA
ST5458 B2RF	NA	NA
$LSD_{0.10}$		
CV (%)		
Mean		

†1=best, 5=worst

CONCORDIA PARISH

Monterey, LA
Soil Type-Clay, Irrigated
Planting Date- April 24, 2008
Grower-Angelina Plantation
County Agent-Glen Daniels

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	508.5	39.6	1.11	4.7	26.8	83.5
CG 3220 B2RF	540.4	38.6	1.23	4.7	28.7	84.0
DP 0935 B2RF	627.0	40.5	1.23	4.7	28.1	83.3
DP 164 B2RF	592.5	38.4	1.16	4.8	27.5	83.50
FM 1740 B2F	720.8	41.5	1.12	4.7	28.8	83.9
PHY 375 WF	487.3	40.4	1.11	4.6	27.2	82.5
PHY 485 WF	473.2	39.0	1.13	4.9	30.8	83.7
ST 4498 B2RF	590.7	38.7	1.12	4.5	31.6	83.2
ST 4554 B2RF	559.8	38.6	1.12	4.7	31.0	83.0
ST5458 B2RF	521.5	39.7	1.13	5.1	27.7	82.6
Mean	562.2	39.5	1.13	4.7	28.8	83.3
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.3	4
CG 3220 B2RF	2.0	3
DP 0935 B2RF	2.4	3
DP 164 B2RF	2.0	3
FM 1740 B2F	2.2	3
PHY 375 WF	2.2	2
PHY 485 WF	2.9	3
ST 4498 B2RF	2.3	3
ST 4554 B2RF	1.8	3
ST5458 B2RF	2.1	2
$LSD_{0.10}$	0.70	0.9
CV (%)	18.4	18.89
Mean	2.2	2.7

†1=best, 5=worst

EAST CARROLL PARISH

Lake Providence, LA
Soil Type-Silt Loam-Irrigated
Planting Date- April 25, 2008
Grower-Bo Holt
County Agent-Donna Lee

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	878.8	41.9	1.08	4.1	26.0	83.2
CG 3220 B2RF	837.2	41.2	1.11	4.2	27.9	83.1
DP 0935 B2RF	1037.3	42.7	1.11	4.4	29.7	84.0
DP 164 B2RF	1072.3	39.4	1.15	4.1	29.1	84.3
FM 1740 B2F	1125.1	41.9	1.14	4.6	28.0	84.4
PHY 375 WF	968.7	41.8	1.13	4.3	28.5	83.9
PHY 485 WF	904.5	40.4	1.10	4.8	30.6	83.6
ST 4498 B2RF	977.5	41.0	1.20	3.7	28.6	83.0
ST 4554 B2RF	1056.1	41.6	1.10	4.6	31.0	83.5
ST5458 B2RF	1066.9	41.0	1.15	4.6	29.5	83.5
Mean	992.4	41.3	1.12	4.3	28.9	83.6
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.8	3.5
CG 3220 B2RF	2.6	3.0
DP 0935 B2RF	2.8	2.5
DP 164 B2RF	2.8	2.5
FM 1740 B2F	2.8	2.5
PHY 375 WF	3.0	3.5
PHY 485 WF	2.9	2.5
ST 4498 B2RF	2.9	3.5
ST 4554 B2RF	2.5	3.0
ST5458 B2RF	2.9	2.5
$LSD_{0.10}$	0.58	1.41
CV (%)	9.35	21.81
Mean	2.8	2.9

†1= best, 5= worst

EAST CARROLL PARISH

Monticello, LA
Soil Type-Clay, Non-Irrigated
Planting Date- April 21, 2008
Grower-Jamie Howington
County Agent-Donna Lee

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	660.2	39.1	1.04	4.3	24.5	82.0
CG 3220 B2RF	603.4	38.4	1.07	4.2	24.8	82.5
DP 0935 B2RF	672.4	40.5	1.02	4.4	25.1	81.9
DP 164 B2RF	621.6	38.7	1.10	4.3	25.3	83.0
FM 1740 B2F	589.6	39.4	1.06	4.3	25.3	83.4
PHY 375 WF	732.8	40.6	1.06	4.2	25.0	82.4
PHY 485 WF	657.9	38.6	1.07	4.7	27.0	82.7
ST 4498 B2RF	625.6	37.6	1.06	4.3	25.2	82.8
ST 4554 B2RF	628.8	39.3	1.04	4.5	27.4	82.4
ST5458 B2RF	655.2	39.3	1.05	4.5	24.9	82.2
Mean	644.8	39.1	1.06	4.4	25.4	82.5
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	3.1	3
CG 3220 B2RF	2.6	3
DP 0935 B2RF	2.9	4
DP 164 B2RF	2.9	3
FM 1740 B2F	2.8	2
PHY 375 WF	3.2	3
PHY 485 WF	3.1	2
ST 4498 B2RF	2.9	2
ST 4554 B2RF	2.8	2
ST5458 B2RF	2.9	1
$LSD_{0.10}$	0.50	1.3
CV (%)	10.0	30.9
Mean	2.9	2.4

†1= best, 5= worst

POINTE COUPEE PARISH

Bachelor, LA
Soil Type-Silt Loam
Planting Date- April 30, 2008
Grower-George Lacour
County Agent-Miles Brashier

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	687.2	40.9	1.17	4.9	28.6	84.0
CG 3220 B2RF	686.0	39.8	1.16	4.9	29.2	83.8
DP 0935 B2RF	988.6	41.0	1.19	5.0	28.1	84.6
DP 164 B2RF	866.4	38.5	1.15	4.4	29.2	83.9
FM 1740 B2F	750.0	39.1	1.12	4.5	26.0	83.5
PHY 375 WF	771.1	39.1	1.15	4.7	29.3	83.8
PHY 485 WF	621.4	39.2	1.17	4.6	27.5	83.3
ST 4498 B2RF	756.9	38.2	1.19	4.5	28.1	82.5
ST 4554 B2RF	819.6	39.6	1.15	4.4	26.9	83.6
ST5458 B2RF	870.1	41.0	1.14	4.6	25.3	83.5
Mean	781.7	39.7	1.16	4.6	27.8	83.6
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	1.7	2
CG 3220 B2RF	1.9	2
DP 0935 B2RF	2.2	2
DP 164 B2RF	2.3	3
FM 1740 B2F	2.3	2
PHY 375 WF	2.3	2
PHY 485 WF	2.2	2
ST 4498 B2RF	2.2	3
ST 4554 B2RF	1.9	2
ST5458 B2RF	2.3	2
$LSD_{0.10}$	0.48	1.4
CV (%)	13.3	34.1
Mean	2.1	2.3

†1=best, 5=worst

RAPIDES PARISH

Alexandria, LA
Soil Type-Silt Loam-Non-Irrigated
Planting Date- April 22, 2008
Grower-Darrell Franks-Dean Lee
County Agent-Matt Martin Jr.

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	461.3	40.0	1.07	4.80	24.4	82.0
CG 3220 B2RF	459.1	38.9	1.10	4.80	26.3	82.9
DP 0935 B2RF	634.4	40.5	1.07	4.90	26.0	82.7
DP 164 B2RF	601.7	37.3	1.13	4.85	27.5	83.3
FM 1740 B2F	549.0	40.2	1.07	4.90	26.7	83.5
PHY 375 WF	498.7	40.8	1.09	4.80	26.6	83.1
PHY 485 WF	525.0	38.3	1.08	5.00	28.3	83.7
ST 4498 B2RF	503.1	38.0	1.09	4.65	28.2	83.7
ST 4554 B2RF	594.3	37.2	1.10	4.90	30.4	83.3
ST5458 B2RF	529.9	39.6	1.08	5.10	26.2	82.7
Mean	535.6	39.1	1.09	4.87	27.1	83.1
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	1.8	1
CG 3220 B2RF	1.8	2
DP 0935 B2RF	1.8	1
DP 164 B2RF	1.4	1
FM 1740 B2F	1.9	1
PHY 375 WF	1.9	1
PHY 485 WF	2.0	2
ST 4498 B2RF	1.9	2
ST 4554 B2RF	1.3	2
ST5458 B2RF	2.0	2
$LSD_{0.10}$	0.65	0.9
CV (%)	16.5	28.7
Mean	1.8	1.4

†1=best, 5=worst

RAPIDES PARISH

Alexandria, LA
Soil Type-Silt Loam
Planting Date-April 30, 2008
Grower-Mike Palermo
County Agent-Matt Martin, Jr.

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	474.2	39.1	1.11	4.6	24.7	83.0
CG 3220 B2RF	498.0	38.9	1.14	4.8	26.8	83.7
DP 0935 B2RF	731.0	40.7	1.10	4.7	26.9	82.6
DP 164 B2RF	658.8	39.0	1.20	4.8	29.5	83.0
FM 1740 B2F	598.6	40.7	1.14	4.9	27.1	83.4
PHY 375 WF	463.4	40.9	1.14	4.5	27.3	82.9
PHY 485 WF	497.3	37.9	1.12	4.7	29.6	82.8
ST 4498 B2RF	632.6	38.0	1.13	4.5	28.5	83.5
ST 4554 B2RF	600.7	37.5	1.11	4.9	27.1	81.2
ST5458 B2RF	612.8	37.7	1.13	4.9	27.7	82.2
Mean	576.7	39.1	1.13	4.7	27.5	82.8
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.6	1
CG 3220 B2RF	2.5	1
DP 0935 B2RF	2.7	1
DP 164 B2RF	2.7	1
FM 1740 B2RF	2.5	2
PHY 375 WF	2.6	1
PHY 485 WF	2.6	3
ST 4498 B2RF	2.6	2
ST 4554 B2RF	2.3	2
ST5458 B2RF	2.7	2
$LSD_{0.10}$	.30	0.7
CV (%)	5.3	20.1
Mean	2.6	1.5

†1=best, 5=worst

TENSAS PARISH

Waterproof, LA
Soil Type- Clay Non-irrigated
Planting Date- April 22, 2008
Grower-Jay James
County Agent-Dennis Burns

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	642.8	40.7	1.05	4.5	20.6	79.7
CG 3220 B2RF	595.3	39.3	1.04	4.9	23.0	80.1
DP 0935 B2RF	582.4	40.9	1.07	4.9	23.2	80.9
DP 164 B2RF	500.2	37.7	1.11	4.9	25.3	80.6
FM 1740 B2F	674.6	41.0	1.09	5.1	23.7	81.8
PHY 375 WF	703.5	38.0	1.06	4.7	22.7	80.0
PHY 485 WF	629.7	39.4	1.07	5.0	26.1	82.3
ST 4498 B2RF	468.7	39.7	1.06	4.8	26.7	81.3
ST 4554 B2RF	694.5	38.5	1.06	5.1	27.8	82.0
ST5458 B2RF	660.3	40.9	1.06	5.2	22.2	80.1
Mean	615.2	39.6	1.06	4.9	24.1	80.9
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.3	4
CG 3220 B2RF	2.3	3
DP 0935 B2RF	2.0	3
DP 164 B2RF	2.4	3
FM 1740 B2F	2.6	4
PHY 375 WF	2.2	4
PHY 485 WF	1.7	2
ST 4498 B2RF	2.2	3
ST 4554 B2RF	1.5	2
ST5458 B2RF	2.3	4
$LSD_{0.10}$	0.99	1.3
CV (%)	26.9	24.0
Mean	2.2	3.1

†1= best, 5= worst

TENSAS PARISH

Somerset, LA
Soil Type-Silt loam - Irrigated
Planting Date- April 25, 2008
Grower-Jay Hardwick
County Agent-Dennis Burns

Variety	Lint Yield	Lint Percent	UHM	MIC	Strength g/tex	Uniformity index
AM 1550 B2RF	726.2	40.3	1.14	4.9	26.1	82.6
CG 3220 B2RF	702.7	39.9	1.16	5.0	28.6	83.1
DP 0935 B2RF	769.5	40.9	1.14	4.8	29.0	82.6
DP 164 B2RF	705.7	39.1	1.18	4.7	28.3	82.7
FM 1740 B2F	700.0	40.9	1.17	5.1	28.7	83.9
PHY 375 WF	616.3	39.9	1.15	4.7	28.9	83.5
PHY 485 WF	716.3	40.6	1.16	4.9	29.9	83.7
ST 4498 B2RF	678.7	39.7	1.13	4.8	27.8	82.8
ST 4554 B2RF	699.2	38.9	1.14	4.8	28.3	81.8
ST5458 B2RF	784.3	40.8	1.17	5.1	28.5	83.2
Mean	707.8	40.12	1.15	4.9	28.4	82.9
LSD (0.05)	85	1.3	0.03	0.3	1.7	1.2

Plant stand data collected 35 days after planting.

Variety	Plant stand	Vigor Rating
	plants/foot	1-5†
AM 1550 B2RF	2.7	3
CG 3220 B2RF	2.7	4
DP 0935 B2RF	2.6	4
DP 164 B2RF	2.8	4
FM 1740 B2F	2.8	4
PHY 375 WF	2.8	3
PHY 485 WF	2.7	3
ST 4498 B2RF	2.7	3
ST 4554 B2RF	2.6	3
ST5458 B2RF	2.6	4
$LSD_{0.10}$	0.53	1.3
CV (%)	8.8	17.7
Mean	2.7	3.35

†1= best, 5= worst

Maturity

Maturity, or earliness, is an important agronomic characteristic of cotton varieties. Neither early nor full-season maturity is perfect for all situations. Early maturing varieties tend to bloom earlier, have shorter bloom periods, are generally shorter in stature, and have a compressed season. These characteristics can ease management and provide some insurance against late-season storms. However, early-maturing varieties also tend to have less stress tolerance due to a compressed bloom period. Conversely, full-season varieties often bloom later, have longer bloom periods, and are taller. Full-season varieties tend to extend the time in which fruiting structures must be protected and can be subject to increasing late-season pest pressure. However, full-season varieties are generally thought to have more stress tolerance and an increased ability to compensate for early fruit loss through an extended bloom period.

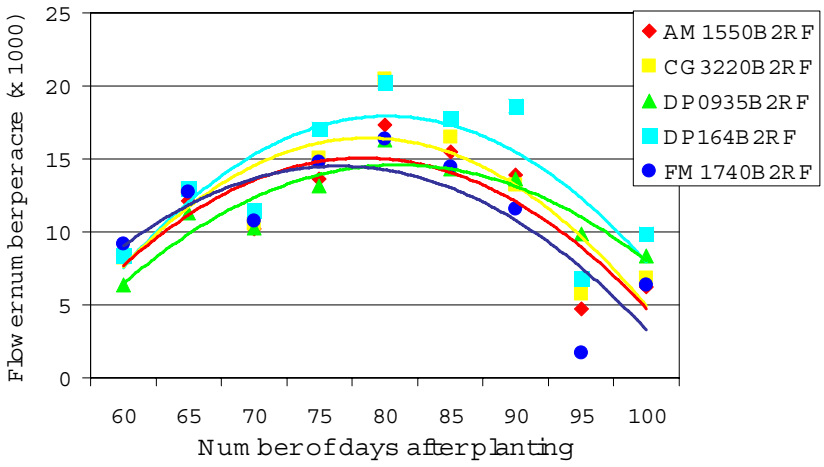
Characterizing maturity of cotton varieties using terms such as early, or early-mid, or mid-full are used with little explanation as to what they actually mean or how they were derived. Many measurements are "snapshots in time" and do not adequately relate to how maturity affects management.

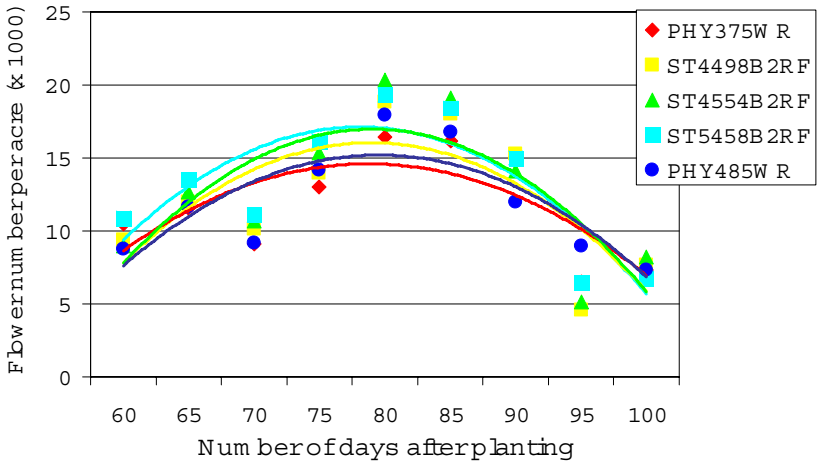
For management purposes, earliness is important as it relates to when peak bloom occurs and how long the bloom period lasts. These two factors dictate to a large degree how a particular variety will be managed and protected. White flowers were counted on a weekly basis to identify rates of flowering, the date of peak bloom and the estimated time required for 90% of the flowers to develop. The following table and graphs reflects the average values for the 10 varieties in eight of the 11 trials.

These data should represent a logical method of comparing the maturity of these varieties. These values are not absolute and will change slightly in different environments, management systems, and plant populations. Therefore, they should be used only as a guide and a means of comparing maturity among selected varieties.

Flowers produced per day during the growing season for 10 cotton varieties, averaged across eight locations.

Variety		No. of Days to peak Bloom, ± 2 days	No. of Flowers produced each day during peak bloom	No. of Flowers produced each day from 60 to 100 days after planting
AM 1550B2RF		80	17, 337	11, 779
CG 3220B2RF		80	20, 470	12, 560
DP 0935B2RF		80	16, 313	11, 615
DP 164B2RF		80	20, 264	14, 262
FM 1740B2F		80	16, 387	11, 530
PHY 375WR		80	16, 405	12, 057
PHY 485B2RF		80	17, 971	11, 928
ST 4498B2RF		80	18, 812	12,696
ST 4554B2RF		80	20, 339	13, 229
ST65458B2RF		80	19, 332	13, 410
LSD(0.05)			2547	855





Average flowernumberperday from 60 to 100 days afterplanting, for 10 varieties, averaged across eight locations.

Acknowledgements

The following cooperators and LSU AgCenter personnel are sincerely thanked for their efforts in conducting on-farm cotton variety trials in 2008:

Avoyelles Parish *Kent Roblin – Farmer* *Trent Clark and Carlos Smith – County Agents*	East Carroll Parish *Bo Holt – Farmer* *Jamie Howington-Farmer* *Donna Lee – County Agent*
Caddo Parish *Sonny and Ryan Kirby – Farmers* *John Levasseur – County Agent*	Pointe Coupee Parish *George Lacour – Farmer* *Mile Brashier – County Agent*
Catahoula Parish *Roger Carter-Farmer* *Cliff Watts- County Agent*	Rapides Parish *Mike Palermo-Farmer* *Darrell Franks – Farmers* *Matt Martin – County Agent*
Concordia Parish *Tommy Ellett and Angelina Plantation – Farmers* *Glen Daniels – County Agent (Concordia)* *Cliff Watts – County Agent (Catahoula*	Tensas Parish *Dr. Jay Hardwick – Farmer* *Jay James – Farmer* *Dennis Burns – County Agent*

Special thanks to Mr. Ivan Dickson of the LSU Cotton Fiber Lab for HIV data.

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Pub. 3022 (online only) 2/09 Rev.
Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914,
in cooperation with the United States Department of Agriculture.