

No defoliation was used on these tests. The first killing freeze was on 12 November. Harvest was on 20 and 21 December.

Lint yield was substantially better for DPL 712 than for DPL 41 or 7209 at both harvest dates. DPL 712 is an experimental line with shorter fiber than the other upland cotton varieties. Lint yield of pima cotton was considerably lower than upland cotton as expected. Differences between P-34 and 81-102 were inconsistent. Two of three plots of 81-102 after barley had large areas of very late emergence due to poor water penetration during the original germination irrigation. In 1981, 81-102 had higher lint yield than Pima S-6 for late plantings and probably would have after barley in 1982, except for the poor stands. If double cropping small grain and cotton is seriously considered in Graham County, swathing or desiccating the grain to speed harvest and cotton planting would be advantageous.

SHORT SEASON TESTS - COTTON RESEARCH CENTER, 1982 Yield, pounds Lint/Acre  
Field C-4

M. D. Cannon, W. D. Fisher, E. J. Pegelow

Lint Yields, Pounds/Acre

Variety	Low Nitrogen		Normal Nitrogen		Variety Means
	Early Termination	Full Season	Early Termination	Full Season	
AZ 7209	1,524	1,424	1,523	1,357	1,457 d
Stnvl 825	1,603	1,603	1,568	1,473	1,569 a
DP 62	1,600	1,493	1,590	1,389	1,543 b
DP 70	1,596	1,466	1,528	1,457	1,512 c
Means	1,581	1,504	1,552	1,618	
Means for N	1,542 a		1,567 a		
Means for Irrigation:	<u>Early Termination</u>		<u>Full Season</u>		
	1,567 a		1,461 b		

Analysis of Variance

Source	d.f.	SS	MS	F	F.05
Total	31	2,714.82			
Reps	1	69.31	69.31		
Nitrogen	1	258.18	258.18	18.47	161
Error a.	1	13.98	13.98		
Irrigation	1	891.5	891.5	26.8	18.51 *
I x N	1	63.6	63.6	1.92	
Error b.	2	66.4	33.2		
Variety	3	501.4	167.13	3.70	3.49 *
N x V	3	56.8	15.61		
I x V	3	165.4	55.12		
N x I x V	3	96.5	32.18		
Error c.	12	541.7	45.14		

SHORT SEASON TESTS, COTTON RESERCH CENTER (continued)

Pounds Lint per Acre per Inch of Consumptive Use<sup>1</sup>

Variety	N:67.5# Preplant		N:157.5# Split Application		Variety Means
	Early Termination	Full Season	Early Termination	Full Season	
AZ 7209	46.65	48.15	44.45	46.20	46.36
Stnvl 825	47.35	48.90	44.90	48.90	47.51
DP 62	47.20	47.45	43.40	49.65	46.92
DP 70	46.60	46.60	46.00	51.05	47.56
Means	46.95	47.78	44.69	48.95	
Means for N	<u>47.37</u>		<u>46.82</u>		
Means for Irrigation:	Early Termination	45,820			
	Late Termination	<u>48,635</u>			

<sup>1</sup> Consumptive water use determined by neutron probe readings, one in each of 32 plots, from April 23 to September 30.

Total water applied: 60 in. full season; 54 in. early termination.

Urea applied as follows: 150 pounds preplant and 200 pounds side dressed on June 7 to the normal split application plots.

Planting date - April 2. Defoliated - October 21 and November 5. First picking on November 15.

Ginning laboratory tests showed no significant differences in length, strength or fineness.

No significant differences in lint yield by consumptive use.

SHORT SEASON COTTON TESTS, 1982 Yield, Pounds Lint/Acre  
LAYTON FARMS FIELD G-19

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Variety	Short Season	Full Season	Variety Mean
AZ 7209	1,223	1,059	1,141 ab
Stnvl 825	1,282	1,063	1,172 a
DP 62	1,065	1,051	1,058 b
DP 70	1,086	1,038	1,062 b
Mean for Irrigation	<u>1,164</u> a	<u>1,053</u> b	

Variance Analysis

Source	d.f.	SS	MS	F	F. <sub>05</sub>
Main Plots					
Irrigation	1	99,123	99,123	10.989	10.13*
Blocks	3	64,144	21,381	2.370	
Error a.	3	27,061	9,020		
Subplots					
Variety	3	21,534	7,178	3.381	3.16*
I x V	3	112,635	37,521	17.673	**
Error b.	18	285,117	2,123		
Total	31				

Irrigations: March 4, May 18, June 18, July 11, July 28, August 20, plus one additional on September 20 for full season.

Planting Date: April 17

Harvest Dates: November 11 - First picked early cutoff,  
December 21 - Second picked early cutoff, and  
Once over harvested the full season plots.