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COTTON VARIETY TESTS

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Cotton variety tests planted in 1954 included 6 tests for stripper harvest in Western Oklahoma, tests intended for hand harvest under dry-land conditions at 3 Western and 7 Eastern locations, and tests under irrigation at 3 locations. At 5 locations tests were planted on 2 dates in an attempt to study the effect of medium and late dates of planting on variety performance. At only one location, however, did both dates of planting give good enough stands to warrant the taking of data.

Data obtained on the various tests harvested are presented in this circular as follows:

STRIPPER HARVESTED TESTS - - - - -	pages 2-7
WESTERN DRYLAND TESTS - - - - -	" 8-11
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It is a pleasure to acknowledge the assistance of the following cooperators who provided land and assisted in the conduct of the 1954 tests: Galen Briggs, Davidson; Leroy Bridges, Hollis; Dale McClain, Elk City; Bryan Gentry, Hobart; Austin Livesay, Broken Arrow; E. L. Cude, Webbers Falls; and J. H. Joines, Caddo. Agencies cooperating included the Agricultural Division, Samuel Roberts Noble Foundation, Ardmore (Madill and Lone Grove locations), and Panhandle A & M College, Goodwell.

STRIPPER HARVESTED TESTS

Information on the 5 stripper tests harvested is given in table 1. The other test was planted at Mangum, and it was not harvested because of the very irregular stands. The remaining tests had sufficiently good stands to provide comparable data for all varieties. Three of the harvested tests were treated with pentachlorophenol prior to harvest in order to make it possible to strip earlier. The remaining two were stripped after frost.

Varieties included in the 1954 tests are listed in table 2. Only varieties with reasonable storm resistance are included. While the stripper is not selective in the varieties it will harvest, it appears desirable to use a variety in which the risk of pre-harvest losses is minimized. It is the purpose of these tests to determine which varieties combine yielding ability and other desirable characteristics with the storm resistance.

All stripper tests were replicated three times. Plots were 4 rows by 100 feet. The middle two rows were harvested with a 2-row John Deere stripper, the same machine being used on all tests. Weights were taken in the field, and samples of the stripped cotton were taken to the laboratory for determination of lint percent, staple length, and other fiber properties. Pre-harvest losses were determined by picking up all the cotton on the ground immediately prior to harvest, and harvest losses were determined by gathering all the cotton remaining on the plot after stripping. These samples were cleaned and ginned and the weight of lint in each was determined.

Lint properties were determined in the A & M fiber laboratory. The tests made are discussed on page 6.

TABLE 1. Location, soil type, and information on the culture of the 1954 stripper variety tests.

<u>Nearest Town</u>	<u>Soil Type</u>	<u>Planted</u>	<u>Harvested</u>	<u>Other</u>
Davidson	Sandy loam	May 19	Oct. 15	Desiccated* Sept. 28
Altus	Clay loam	June 7	Nov. 17	7 appl. Toxaphene and DDT. Irri- gated 6 times
Elk City	Fine sandy loam	June 3	Nov. 15	
Hobart	Silty clay loam	May 23	Oct. 15	Desiccated* Oct. 4
Chickasha	Silty clay loam	May 27	Oct. 14	Desiccated* Oct. 9

* Pentachlorophenol used as desiccant.

TABLE 2. Sources of varieties tested in 1954.

Parrott, CR-4*, 14-3-B*	Oklahoma Cotton Research Station Chickasha, Oklahoma
Lankart 57 and 611	Lankart Seed Farms Waco, Texas
Lockett No. 1	Lockett Seed Co. Vernon, Texas
Macha	H. A. Macha Tahoka, Texas
Northern Star	Northern Star Seed Farms O'Brien, Texas
Stormmaster	Texas Agricultural Experiment Station Lubbock, Texas
Wacona	Wacona Seed Farms Waco, Texas
Western Stormproof	Von Roeder Seed Co. Clemens Von Roeder Snyder, Texas

* Experimental strains, not commercially available.

TABLE 3. 1954 results of stripper-harvested variety tests.

DAVIDSON					
Variety	Lbs. Lint Harvested Per A.	Lint %	Percentage Losses		Staple in 32's
			Pre-Harvest	Harvest	
Western Stormproof	158	26.4	1.4	5.4	30
Parrott	154	25.2	2.3	4.1	28
Lockett No. 1	141	24.3	2.1	5.8	28
Lankart 611	139	23.4	1.0	2.5	29
Lankart 57	133	24.3	1.3	4.3	30
Northern Star	128	23.4	2.9	4.6	30
CR-4	124	25.2	0.8	6.8	28
Wacona	122	22.6	2.1	5.2	30
Stormmaster	117	21.7	1.0	5.4	29
14-3-B	84	17.1	2.1	5.3	28
Macha	84	18.3	1.5	8.2	28
L.S.D. 5%	25				
1%	34				
AITUS					
Western Stormproof	900	30.7	0.5	5.2	30
Lankart 57	798	26.5	0.5	7.6	31
14-3-B	796	31.0	1.8	7.4	29
Parrott	782	27.7	3.7	6.8	29
Stormmaster	757	26.0	0.9	7.7	31
Northern Star	747	25.3	1.6	8.5	30
Wacona	739	25.3	0.7	7.9	32
Lankart 611	735	25.6	0.3	5.2	31
CR-4	732	26.5	1.1	5.8	30
Lockett No. 1	731	28.5	3.1	10.0	28
Macha	632	25.2	1.5	11.9	30
L.S.D. 5%	88				
1%	122				
ELK CITY					
Western Stormproof	229	30.1	2.8	3.8	30
Lockett No. 1	211	26.5	4.9	4.5	28
14-3-B	211	24.4	3.4	4.0	30
Parrott	208	26.9	5.8	5.4	29
CR-4	202	28.7	4.1	2.9	29
Wacona	200	26.1	4.2	3.5	30

Continued

TABLE 3 Continued.

ELK CITY					
Variety	Lbs. Lint Harvested Per A.	Lint %	Percentage Losses		Staple in 32's
			Pre-Harvest	Harvest	
Lankart 611	198	27.6	3.4	3.2	30
Lankart 57	196	28.5	5.5	4.5	30
Stormmaster	194	25.6	4.4	6.1	31
Northern Star	179	25.9	5.6	8.1	30
Macha	154	23.6	7.2	6.2	30

No significant differences.

HOBART					
Western Stormproof	162	27.4	2.5	4.1	26
Lankart 611	150	25.2	1.3	3.6	28
Lankart 57	139	25.2	1.4	3.0	28
Parrott	133	25.4	9.1	4.3	28
CR-4	133	27.1	1.5	6.5	28
Wacona	128	23.3	2.8	4.0	28
Lockett No. 1	117	25.8	5.1	6.4	24
14-3-B	111	19.8	2.3	4.9	28
Northern Star	104	23.3	6.2	3.9	29
Stormmaster	102	23.4	3.5	4.9	28
Macha	71	20.7	5.8	6.5	26
L.S.D. 5%	40				
1%	55				

CHICKASHA					
Lankart 611	209	26.6	1.4	2.0	28
CR-4	208	28.2	0.7	5.5	24
Western Stormproof	207	27.7	2.6	3.5	28
Lockett No. 1	203	27.2	6.4	4.0	28
Parrott	191	27.5	4.4	4.1	28
Wacona	180	23.8	2.8	3.3	28
Lankart 57	174	25.5	1.3	2.3	28
Northern Star	173	25.1	5.1	6.3	30
Stormmaster	163	24.2	3.8	6.8	26
Macha	149	21.7	5.2	4.1	28
14-3-B	147	19.9	3.6	3.1	24
L.S.D. 5%	35				
1%	48				

Lint Properties of Varieties Tested

Micronaire values are influenced by the diameter of the lint hairs (a varietal effect) and thickness of the cell walls (an environmental effect on maturity of the lint). Complete data were taken on samples of the stripped cotton from all tests in 1954. Micronaire values in table 4 show Parrott to be consistently coarse at all locations, and most varieties to be satisfactory. Of the commercial varieties included, Macha had the lowest average micronaire value.

Upper half mean length of each variety was determined on the Fibrograph, an electronic device for measuring length. These measurements probably indicate actual length differences more precisely than do classers' staple, since only length is considered. They are presented in table 4. The values given are in decimal fractions of an inch.

Lint strength was measured on the Pressley breaker, and is expressed as Pressley index. The higher numbers indicate stronger, the lower numbers indicate weaker cotton. While none of the commercial cottons tested is too weak to be satisfactory for spinning, differences do exist which may be of interest to some readers. Pressley indices are given in table 4.

TABLE 4. Properties of lint of 11 varieties grown in stripper-harvested tests at 5 locations in 1954.

<u>Variety</u>	<u>Davidson</u>	<u>Hobart</u>	<u>Chickasha</u>	<u>Altus</u>	<u>Elk City</u>	<u>Variety Average</u>
<u>MICRONAIRE VALUES</u>						
Parrott	4.5	4.8	4.5	5.1	4.6	4.7
CR-4	4.3	4.6	4.7	5.1	4.4	4.6
Lankart 57	3.1	3.9	3.6	5.1	4.4	4.0
Lankart 611	3.4	3.8	3.9	4.7	4.2	4.0
Northern Star	3.7	4.2	4.0	4.8	4.4	4.2
Lockett No. 1	3.7	3.9	4.1	4.7	4.2	4.1
Macha	2.8	3.3	3.1	4.2	3.6	3.4
Stormmaster	3.0	3.6	3.5	4.6	3.8	3.7
14-3-B	2.4	2.9	2.8	4.4	3.6	3.2
Wacona	3.3	3.8	3.8	4.2	4.2	3.9
Western Stormproof	3.9	4.5	4.1	4.9	4.3	4.3
<u>UPPER HALF MEAN LENGTH IN INCHES</u>						
Parrott	.87	.85	.85	.89	.89	.870
CR-4	.84	.85	.81	.87	.85	.844
Lankart 57	.91	.89	.87	.98	.91	.912
Lankart 611	.90	.90	.86	.97	.92	.910
Northern Star	.93	.91	.88	.99	.90	.922
Lockett No. 1	.80	.79	.80	.86	.85	.820
Macha	.78	.86	.84	.87	.90	.850
Stormmaster	.82	.82	.81	.96	.90	.862
14-3-B	.81	.84	.82	.90	.87	.848
Wacona	.90	.88	.88	.99	.93	.916
Western Stormproof	.85	.83	.84	.92	.88	.864
<u>PRESSLEY INDEX</u>						
Parrott	8.96	8.18	8.62	7.81	8.11	8.34
CR-4	9.42	9.43	9.32	9.22	9.43	9.36
Lankart 57	8.30	7.93	8.43	7.18	7.91	7.95
Lankart 611	9.05	8.87	9.11	8.23	8.03	8.66
Northern Star	9.18	8.40	8.69	8.04	8.46	8.55
Lockett No. 1	8.45	8.61	8.13	7.80	8.10	8.22
Macha	8.76	8.33	8.52	8.17	8.18	8.39
Stormmaster	8.69	8.90	8.99	7.90	8.41	8.58
14-3-B	8.19	8.19	8.48	7.21	7.84	7.98
Wacona	8.64	8.28	8.24	7.41	7.97	8.11
Western Stormproof	8.65	8.62	8.59	8.11	8.05	8.40

WESTERN DRYLAND TESTS

Tests of commercial varieties and advanced strains were combined and planted in triple lattice designs with 36 entries at Chickasha, Tipton, and Elk City. Two dates of planting were made at each location, but good stands were obtained on both only at Elk City. There was no variety x date of planting interaction, so the results of the two tests at that location were averaged. Results presented here are for the varieties commercially available; data on the experimental entries have been deleted.

The tests were hand snapped on two dates. Yields presented are the total for both dates of harvest. The percent harvested first harvest is an indication of relative maturity of the varieties. Data on staple length and lint percent of pulled cotton were taken on samples saved from both harvests. Data presented on these properties are weighted averages for the two harvests. Lint percent of picked cotton and grams per boll were determined on a boll sample taken at the time of first harvest. These figures can be expected to show relative differences among varieties, but can be expected to be slightly higher than would be an average figure for the entire crop.

Pertinent data on the tests are given below.

<u>Nearest town</u>	<u>Soil type</u>	<u>Date planted</u>	<u>Other</u>
Chickasha	Silty clay loam	May 27	none
Tipton	Very fine sandy loam	June 4	none
Elk City	Fine sandy loam	June 3 & June 11	none

TABLE 5. Comparative performance of 26 varieties of cotton tested at Chickasha in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested* 1st Harvest
			Picked	Pulled		
Western Stormproof	220	27	36.3	26.0	5.0	
Parrott	217	27	38.9	26.0	4.9	
Cluster	204	27	35.1	25.2	4.6	
Lockett 140	192	26	37.0	24.5	4.6	
Deltapine 15	192	29	35.5	24.2	4.6	
D & PL Fox	191	31	36.5	24.0	4.3	
Lockett No. 1	184	26	34.4	24.7	4.7	
Lankart 57	183	29	34.9	23.6	5.6	
Stormproof R-4	183	27	33.5	23.8	5.7	
Dortch 4016	181	29	34.3	23.7	4.3	
Stoneville 2B-7398	180	27	31.7	22.6	5.0	
Floyd 8G Mebane	173	29	33.1	23.6	5.7	
Lankart 611	171	30	34.4	22.8	5.7	
Hale D & PL 33	169	28	35.5	24.8	4.4	
Qualla 60 Str. 6	169	29	33.8	25.0	5.8	
Paymaster 54	166	28	35.3	23.0	4.9	
Stormmaster	165	27	32.9	22.8	4.6	
Wacona	165	27	30.7	22.4	5.4	
Stoneville 62	164	28	34.2	22.6	4.5	
Stufflebeme Stmpf.	162	28	33.7	24.0	5.5	
Northern Star	159	27	33.6	23.0	5.2	
Stoneville 5A	155	29	34.2	23.2	4.1	
Coker 100	140	30	29.4	20.4	4.5	
Empire	137	29	32.6	21.1	5.5	
Macha	117	24	30.4	19.7	4.3	
Acala 1517	105	31	29.4	16.5	4.1	

* Comparable figures not obtained for all varieties.

TABLE 6. Comparative performance of 21 varieties tested at Tipton in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested 1st Harvest
			Picked	Fulled		
Lockett 140	224	27	34.0	26.4	4.0	61.5
Parrott	212	28	37.3	26.8	5.2	72.2
Stoneville 62	202	28	35.1	25.8	4.6	82.6
Western Stormproof	199	27	38.6	29.0	5.5	73.9
Lankart 611	198	28	35.9	25.1	5.1	78.0
Stormproof R-4	197	28	36.1	24.9	5.5	64.5
D & PL Fox	195	30	34.2	25.2	4.0	87.3
Stufflebeme Stmpf.	192	29	36.6	25.2	5.8	53.2
Lankart 57	190	27	37.0	26.3	5.2	72.4
Cluster	189	27	33.6	25.6	4.5	62.9
Lockett No. 1	174	26	34.2	25.7	4.3	71.2
Deltapine 15	173	30	38.9	26.4	4.1	82.5
Floyd 8G Mebane	172	29	33.7	24.9	5.4	72.8
Wasona	168	27	31.7	22.6	4.9	69.7
Coker 100	167	29	30.5	22.4	4.4	83.9
Paymaster 54	166	28	35.5	24.7	4.6	83.7
Stormmaster	161	27	33.5	22.7	4.2	69.7
Northern Star	150	28	33.5	25.2	4.6	74.5
Qualla 60 Str. 6	149	29	33.5	25.5	5.1	61.4
Empire	148	30	32.4	22.6	5.3	65.8
Stoneville 5A	142	30	35.2	24.6	4.1	70.2

TABLE 7. Comparative performance of 22 varieties of cotton tested at Elk City in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested 1st Harvest
			Picked	Pulled		
Deltapine 15	236	32	37.1	27.1	4.3	74.9
Cluster	227	28	35.3	27.8	5.2	65.8
Western Stormproof	222	29	37.8	29.1	5.4	73.9
Parrott	220	29	37.6	27.9	5.3	76.4
D & PL Fox	218	31	32.9	24.8	4.0	71.4
Stormproof R-4	214	30	35.7	26.8	5.6	61.4
Stoneville 62	214	29	35.6	26.4	4.5	62.4
Lockett 140	206	29	35.6	27.6	5.2	69.9
Stormmaster	204	30	33.9	25.9	4.7	72.3
Floyd 8G Mebane	202	29	33.9	26.2	5.4	74.7
Lankart 57	200	31	37.6	27.6	5.8	61.4
Lockett No. 1	199	28	34.5	26.5	4.8	72.9
Wacona	199	30	32.9	24.9	5.4	66.1
Coker 100	199	32	32.3	23.9	4.8	58.1
Lankart 611	198	31	36.8	27.4	5.8	77.8
Empire	196	31	34.9	24.8	5.3	59.4
Qualla 60 Str. 6	196	29	33.5	26.4	5.5	63.0
Northern Star	191	30	34.2	25.9	5.3	73.8
Stoneville 5A	188	31	35.4	26.4	4.6	66.0
Paymaster 54	178	29	36.5	26.7	5.0	76.8
Stufflebeme Stmpf.	178	30	36.7	25.8	6.1	55.5
Macha	167	29	32.6	23.7	4.5	74.5

WESTERN IRRIGATED TESTS

The irrigated tests were handled in the same manner as the western dryland tests (page 8). The Altus test represents the heavier soil in the irrigation project, while the test at Hollis was on a sandy loam. The test at Goodwell does not represent any current cotton growing area, but is being conducted to explore the possibility of cotton as an irrigated crop in that area.

Sufficient data are not available to make variety recommendations for irrigated areas. There was a closer agreement between the tests at Goodwell and Hollis in 1954 than between either of those tests and Altus. Two years' data are available on some varieties at Altus, and the average results are presented in table 9.

Pertinent information on the irrigated tests is given below.

<u>Nearest town</u>	<u>Soil type</u>	<u>Planted</u>	<u>Other</u>
Altus	Clay loam	June 7	7 appl. Toxaphene and DDT. Irrigated 6 times.
Hollis	Sandy loam	June 5	100# 12-24-12 at planting. Irrigated 5 times.
Goodwell	Clay loam	June 16	Irrigated 3 times plus preplanting irrigation.

TABLE 8. Comparative performance of 26 varieties of cotton tested under irrigation at Altus in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested 1st Harvest
			Picked	Pulled		
Western Stormproof	975	31	40.6	31.2	6.8	82.5
Lockett No. 1	943	29	38.7	29.1	6.1	72.6
Hale D & PL 33	943	31	37.9	28.0	6.1	75.0
Lockett 140	937	30	35.9	27.8	6.3	75.4
Dortch 4016	934	34	39.0	28.6	5.8	66.6
Stoneville 2B-7398	913	32	34.6	26.0	7.0	62.6
Qualla 60 Str. 6	906	30	35.7	27.2	8.0	56.7
Stoneville 5A	905	32	36.4	27.0	5.9	74.7
Floyd 8G Mebane	896	31	36.2	26.3	7.8	61.2
Paymaster 54	870	30	37.7	28.0	6.9	85.9
Stoneville 62	869	31	36.7	27.6	5.9	75.5
Stufflebeme Stmpf.	860	32	36.7	26.3	8.4	58.8
D & PL Fox	854	34	35.3	26.5	5.6	80.7
Lankart 57	852	31	38.2	26.8	8.7	60.4
Deltapine 15	849	33	38.9	27.6	6.3	66.2
Cluster	829	31	36.8	27.4	6.5	64.9
Northern Star	827	31	35.7	26.4	6.6	75.0
Acala 1517	806	34	34.0	24.1	6.8	63.2
Parrott	797	31	38.4	27.6	6.2	78.1
Macha	790	30	34.6	25.0	6.2	70.9
Stormproof R-4	774	32	36.7	26.2	8.5	57.7
Empire	766	33	35.6	25.3	8.0	72.0
Lankart 611	727	33	35.8	26.0	8.8	75.1
Stormmaster	710	31	35.5	23.5	6.2	73.1
Coker 100	706	32	33.4	25.2	6.4	71.1
Wacona	643	31	35.2	25.5	7.5	71.0

TABLE 9. Average data on 13 varieties tested under irrigation at Altus in 1952 and 1954.

<u>Variety</u>	<u>Lbs. Lint Per A.</u>	<u>Staple in 32's</u>	<u>Lint %</u>		<u>Grams Per Boll</u>	<u>% Harvested 1st Harvest</u>
			<u>Picked</u>	<u>Pulled</u>		
Lockett No. 1	1050	31	39.5	30.1	6.4	68.4
Lockett 140	1023	30	37.5	29.0	6.5	74.1
Deltapine 15	1009	35	39.7	28.6	6.4	67.4
D & PL Fox	989	35	36.0	26.8	5.8	66.7
Paymaster 54	984	32	38.9	29.3	7.1	77.1
Stoneville 62	967	33	37.7	28.9	6.1	71.7
Northern Star	929	33	36.1	27.6	7.1	65.7
Lankart 57	928	32	39.4	28.1	8.6	57.8
Lankart 611	920	34	37.6	27.7	8.2	70.7
Stormmaster	904	33	37.5	26.2	6.5	70.2
Parrott	895	32	39.8	29.1	6.7	70.8
Macha	893	31	35.1	25.8	6.2	70.4
Empire	847	34	36.1	26.2	7.9	62.4

TABLE 10. Comparative performance of 16 varieties tested under irrigation at Hollis in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested 1st Harvest
			Picked	Pulled		
Paymaster 54	737	30	35.1	25.4	7.7	74.7
Lankart 611	724	33	32.3	23.2	8.7	66.9
Hi-Bred	720	29	37.1	26.7	6.9	71.8
Deltapine 15	662	33	33.3	24.0	6.4	61.0
Parrott	656	29	35.3	25.8	7.0	62.2
Stormmaster	616	31	33.8	24.0	6.7	59.3
Wacona	592	31	32.2	22.9	7.3	45.5
Acala 1517	579	35	32.6	23.0	8.2	53.3
Lankart 57	568	32	33.6	22.7	8.8	49.3
Empire	556	32	30.4	21.9	7.6	50.2
Stoneville 62	546	31	32.7	23.1	6.4	51.8
CR-4	538	30	35.1	24.9	6.4	59.0
D & PL Fox	507	33	31.5	21.9	5.6	57.9
Northern Star	470	34	31.6	22.7	7.6	52.6
Cluster	458	28	33.4	24.2	6.7	39.7
Lockett No. 1	425	30	32.8	24.4	6.4	42.5
L.S.D. 5%	128					
1%	170					

TABLE 11. Comparative performance of 15 varieties tested under irrigation at Goodwell in 1954.

<u>Variety</u>	<u>Lbs. Lint Per A.</u>	<u>Staple in 32's</u>	<u>Lint %</u>		<u>Grams Per Boll</u>
			<u>Picked</u>	<u>Pulled</u>	
Paymaster 54	466	30	38.3	27.9	7.0
Stormmaster	460	30	36.6	26.3	6.3
Hi-Bred	448	28	40.4	30.1	6.8
CR-4	442	29	38.4	28.6	6.6
Lankart 611	434	33	37.5	26.5	8.1
Parrott	424	30	39.3	28.4	6.1
Wacona	421	30	36.5	25.0	7.2
Macha	415	30	36.7	25.5	6.9
Deltapine 15	405	30	37.5	26.2	6.5
Lankart 57	379	31	37.4	25.4	8.1
D & PL Fox	355	31	32.1	24.7	6.2
Northern Star	349	31	36.3	25.8	7.3
Stoneville 62	310	29	38.5	21.9	6.3
Empire	292	33	36.5	25.0	8.2
Lockett No. 1	269	30	34.3	25.9	5.7
L.S.D. 5%	101				
1%	134				

EASTERN TESTS

A combination variety and advanced strain test was planted at Paradise, which is approximately 15 miles southwest of Stillwater. Data on 23 commercially available varieties are presented in table 12. Other eastern tests consisted of the four recommended varieties and 4 new strains from the cotton breeding program. One of the new strains, Parrott, will be of interest to cotton growers in the state. However, yields were unusually low in all of the eastern tests in 1954, and yield comparisons are of less value than they would be if drought had been less severe. Results of the 6 tests with 8 entries have been summarized by properties measured, and these are presented in tables 13-15.

While limiting the number of entries in the eastern states has reduced the cost of conducting the tests, it is planned to expand them to include more varieties in 1955. Pertinent information on the eastern tests is given below.

<u>Nearest town</u>	<u>Soil type</u>	<u>Planted</u>	<u>Other</u>
Paradise	Sand	May 6 & 7	100# 15-15-0 before planting. 3 sprays.
Perkins	Very fine sandy loam	May 11	3 sprays.
Broken Arrow	Sandy loam	June 1	100# 13-13-13 at planting. 3 sprays, 2 dusts.
Webbers Falls	Clay loam	May 20	300# 3-9-18 before planting. 1 spray, 4 dusts.
Lone Grove	Deep sand, deep plowed	May 25	150# 5-10-5
Caddo	Black land	May 21	4 sprays
Madill	Black land	May 31	150# 5-10-5 2 sprays for grasshoppers.

TABLE 12. Comparative performance of 23 varieties tested at Paradise in 1954.

Variety	Lbs. Lint Per A.	Staple in 32's	Lint %		Grams Per Boll	% Harvested 1st Harvest
			Picked	Pulled		
Lockett 140	140	28	34.7	24.7	4.2	87.3
Deltapine 15	136	31	38.2	23.8	4.0	80.5
Stoneville 62	133	30	36.8	25.0	4.3	90.4
Lankart 57	132	29	36.4	25.8	5.1	90.0
Hale D & PL 33	131	30	39.2	26.2	3.8	83.6
Stufflebeme Stmpf.	130	29	36.7	24.5	5.4	89.2
Lockett No. 1	129	26	35.9	24.1	4.0	82.0
Lankart 611	129	30	36.6	25.5	6.0	90.4
Stonmmaster	128	29	32.5	20.9	4.0	83.3
Parrott	127	29	38.0	25.4	4.5	83.5
Cluster	126	28	34.9	24.8	4.0	90.9
Wacona	125	30	33.2	23.1	4.9	87.9
D & PL Fox	124	29	35.7	23.5	4.0	95.2
Stoneville 5A	119	29	35.5	22.8	4.0	84.3
Coker 100	113	32	30.0	20.5	3.8	92.5
Bobshaw 44	113	31	32.5	21.7	4.8	90.3
Paymaster 54	111	29	36.7	24.2	4.3	84.0
Northern Star	107	30	33.8	22.8	4.4	80.4
Dortch 4016	104	30	36.9	23.3	3.9	78.3
Stoneville 2B-7398	101	29	30.3	21.2	4.5	85.4
Empire	101	30	32.1	22.0	4.6	83.1
Empire W. R.	101	29	31.9	22.2	4.9	86.4
Bobshaw 1A	101	30	24.2	18.8	3.7	87.2
L.S.D. 5%	23					
1%	31					

TABLE 13. Yield and staple length of 8 varieties and strains tested at 6 locations in Eastern Oklahoma in 1954.

<u>Variety</u>	<u>Perkins</u>	<u>Broken Arrow</u>	<u>Webbers Falls</u>	<u>Lone Grove</u>	<u>Caddo</u>	<u>Madill</u>	<u>Avg.</u>
<u>LBS. LINT PER A.</u>							
Stoneville 62	170	201	107	288	209	220	199
D & PL Fox	171	202	101	256	232	202	194
Deltapine 15	154	204	106	257	230	190	190
Empire	151	167	76	230	185	164	162
BBR 62A	164	170	105	293	200	186	186
BBR 62B	153	184	94	288	220	189	188
Parrott	163	202	111	289	221	212	200
CR-4	141	217	106	237	261	201	194
L.S.D. 5%	19	32	No sig.	Not	No sig.	Not	
1%	26	42	diff.	calc.	diff.	calc.	
<u>STAPLE IN 32's</u>							
Stoneville 62	27	28	26	30	30	28	28
D & PL Fox	28	31	28	29	32	30	30
Deltapine 15	28	31	28	29	32	31	30
Empire	28	30	29	30	31	30	30
BBR 62A	29	29	28	29	29	29	29
BBR 62B	29	29	28	28	30	30	29
Parrott	27	28	26	29	29	29	28
CR-4	28	29	24	28	28	28	28

TABLE 14. Lint percent of picked and pulled (snapped) cotton of 8 varieties tested at 6 locations in Eastern Oklahoma in 1954.

<u>Variety</u>	<u>Perkins</u>	<u>Broken Arrow</u>	<u>Webbers Falls</u>	<u>Lone Grove</u>	<u>Caddo</u>	<u>Madill</u>	<u>Avg.</u>
<u>LINT % OF PICKED COTTON</u>							
Stoneville 62	31.9	32.5	35.1	39.0	37.7	34.8	35.2
D & PL Fox	28.2	31.7	32.9	35.3	35.6	35.3	33.2
Deltapine 15	32.0	36.8	35.5	37.6	38.9	38.4	36.5
Empire	28.0	32.5	32.5	34.5	36.1	34.9	33.1
BBR 62A	31.8	32.1	31.8	34.1	35.8	33.6	33.2
BBR 62B	29.6	33.7	32.9	36.1	36.3	33.8	33.7
Parrott	35.0	37.3	37.2	39.4	39.7	38.4	37.8
CR-4	36.5	36.7	37.8	34.5	39.9	37.9	37.2
<u>LINT % OF SNAPPED COTTON</u>							
Stoneville 62	21.0	26.2	21.3	25.7	26.9	27.5	24.8
D & PL Fox	18.9	24.1	20.0	24.2	25.9	25.1	23.0
Deltapine 15	20.3	26.3	21.1	24.7	26.6	26.5	24.3
Empire	20.7	23.6	19.1	22.7	24.9	25.2	22.7
BBR 62A	20.0	23.9	20.0	23.7	25.1	26.4	23.2
BBR 62B	20.0	24.6	20.3	23.6	25.2	26.3	23.3
Parrott	22.9	26.8	24.0	27.1	28.2	28.6	26.3
CR-4	23.3	27.2	23.5	25.8	28.1	28.6	26.1

SOURCES OF VARIETIES AND STRAINS TESTED IN 1954

<u>SOURCE</u>	<u>VARIETIES AND STRAINS</u>
Bobshaw Seed Co. Indianola, Mississippi	Bobshaw 1A, 44
Coker Pedigreed Seed Co. Hartsville, South Carolina	Coker 100 1954 BRS
H. Conrads, Seed Breeder & Grower San Marcos, Texas	Qualla 60 Str. 6
Delta and Pine Land Co. Scott, Mississippi	D & PL Fox, Deltapine 15
Robert L. Dortch Seed Co. Scott, Arkansas	Dortch 4016
Empire Pedigreed Seed Co. Haralson, Georgia	Empire, Empire W. R.
Hale Seed Farms Burdette, Arkansas	Hale D & PL 33
Harper Seed Farms Martindale, Texas	Floyd 8G Mebane, Stormproof R-4
Lankart Seed Farms Waco, Texas	Lankart 57 and 611
Lockett Seed Co. Vernon, Texas	Lockett 140, No. 1
H. A. Macha Tahoka, Texas	Macha
Northern Star Seed Farms O'Brien, Texas	Northern Star
Oklahoma Cotton Research Station Chickasha, Oklahoma	Stoneville 62, Parrott, CR-4
Paymaster Seed Farms P. O. Box 1632 Plainview, Texas	Paymaster 54
Marvin L. Sharp Vernon, Texas	Marv-L-S-Cluster

<u>SOURCE</u>	<u>VARIETIES AND STRAINS</u>
Stoneville Pedigreed Seed Co. Stoneville, Mississippi	Stoneville 5A, 2B-7398
Stufflebeme Bros. Itasca, Texas	Stufflebeme Stormproof
Texas Agricultural Experiment Station Lubbock, Texas	Stormmaster
Von Roeder Seed Co. Snyder, Texas	Western Stormproof
Wacona Seed Farms Waco, Texas	Wacona