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**PERFORMANCE
OF COTTON VARIETIES
IN TEXAS, 1957-59**



THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS
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Contents

Preface.....	2
Introduction.....	3
Test Procedures.....	3
Climatic Conditions.....	4
Test Results.....	4
Lower Rio Grande Plain.....	5
Coast Prairie and Upper Rio Grande Plain.....	5
Brazos River Valley.....	5
Blackland Prairies and Rolling Plains.....	6
High Plains.....	6
Trans-Pecos.....	6
Recommendations of Varieties.....	6
Acknowledgments.....	10
Appendix.....	11
Characters Reported in Tables.....	11

Preface

Performance data for cotton varieties tested at 26 locations in Texas are summarized for 1957-59. Information is given on lint yield, lint percentages, boll size, staple length and micronaire (fiber fineness).

Yield performance data for the various land resource areas in Texas are summarized in Tables 2-7, for both dryland and irrigated variety trials. Performance data for individual locations are given in the Appendix.

Classification of varieties into varietal types is presented, and recommendations in terms of varietal types are given for the various land resource areas in Texas.

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Performance of Cotton Varieties in Texas, 1957-59

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COTTON HAS BEEN THE MAJOR AGRICULTURAL CROP OF Texas for many years. The Texas Almanac, 1961-62, gives Texas production in 1959 at 4,416,000 bales valued at almost 700 million dollars, an amount exceeding the combined crop values for grain sorghum, wheat, rice, corn and oats. The additional value of cotton seed, approximately 75 million dollars annually, makes cotton production a most significant part of the agricultural economy of the State.

In 1959 cotton acreage allotments were made for 249 of the 254 counties in Texas. These areas encompass a wide range of environmental conditions in respect to soil types, rainfall, elevation and growing season. The adaptability of cotton to such diverse production conditions and the many uses for cotton fiber and seed contribute to the continuing position of cotton as the leading agricultural crop in the State.

The adaptability of cotton in Texas has been increased by the continued efforts of plant breeders to develop varieties more specifically suited to various climatic conditions and production systems. New varieties are continually being released as possible replacements for older, less suitable varieties. The cotton variety picture has changed notably within recent years, and few of the varieties of 15 years ago are still in production. Today, several dozen named varieties are offered for sale in Texas, although many of them are variate forms of certain basic types.

The cotton producer thus has a wide choice, and his success in production may be influenced considerably by the variety he selects for planting. Choice of variety is influenced not only by production potential, but also by disease tolerance, suitability for mechanical harvesting, earliness of maturity, quality of fiber, etc.

Performance testing of cotton varieties has been conducted actively by the Texas Agricultural Experiment Station for 60 years. The program has been continually improved and expanded and today variety testing is carried on at more than 24 locations throughout Texas. Measurements are made on yield, boll size, lint percentage, earliness, staple length, grade and fiber fineness. Data from the tests are summar-

ized annually in mimeographed form, and compiled for publication at regular intervals.

Consistency in varietal performance is influenced often by the effects of season and location, and varieties can be evaluated most reliably when their performance is considered over a period of years or at several locations, or both. Demand for current information, as well as technical considerations, makes 3 years the minimum time in which varietal performance of cotton can be evaluated adequately in Texas, and tests results are summarized and published in bulletin form at the end of each 3-year testing cycle.

This bulletin, the fourth in a series of 3-year summaries, presents data obtained from cotton variety tests conducted in Texas during 1957-59.

Three similar bulletins were published for the 3-year periods of 1948-50, 1951-53 and 1954-56, bulletins 739, 788 and 877, respectively. The first of these summarized performance data for the testing period and discussed briefly aspects and methods of cotton production in Texas. The following two were limited to presentation of cotton variety test data.

A comprehensive discussion of general cotton production techniques is given in TAES Bulletin 938, "Cotton Production in Texas."

TEST PROCEDURES

Because of the great diversity of soil types, climate and production practices in Texas, variety test sites have been established in practically all land resource areas of the State. Locations of the various test sites are shown in Figure 1.

The entries included in the various tests differed from year to year, although certain designated varieties were included in all years to provide a consistent basis for comparison. Tests were designed as either randomized block or triple lattice, depending on the number of entries, and planted generally in six replications. Where a lattice experimental design was employed, data were subjected to both randomized block and lattice analyses. However, the gains in efficiency from lattice analysis were small and the statistics reported herein were derived mainly from the randomized block analysis.

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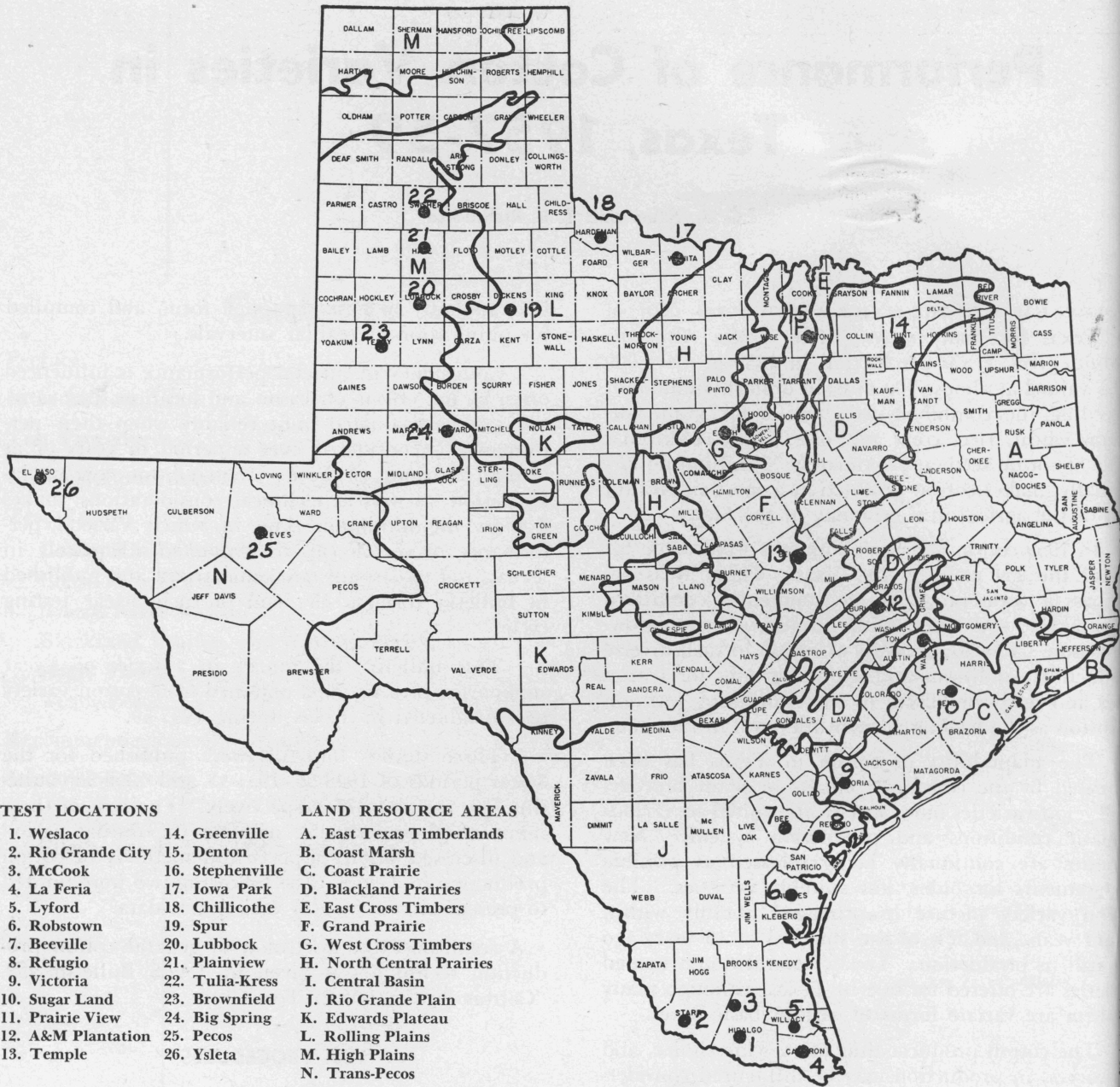


Figure 1. Land resource areas of Texas and cotton variety testing locations.

CLIMATIC CONDITIONS

In general, growing conditions during 1957-59 were favorable for cotton production. The extended drouth of the 1950's was alleviated late in the 1957 growing season and rainfall in 1958 and 1959 was near or above average at most test locations. Although climatic conditions during the growing seasons of 1958 and 1959 were reasonably good, excessive rainfall during the harvest periods caused considerable damage to lint quality at certain locations.

Soil types and climatological data for various locations are presented in Table 1. Tests were conducted mainly at substations, but some were grown with farmer cooperators. In some cases, meteorological

data were not available for the off-station locations.

TEST RESULTS

Data reported in this bulletin included yield, lint per acre, lint percentage, boll size, staple length and micronaire index (fiber fineness). Statistical analysis of yield data was made to determine the significance of difference among mean variety yields. The least significant differences (L.S.D.), calculated at odds of 19 to 1, are shown for the annual and 3-year averages at each test location. The L.S.D. value is the amount by which average yields must differ before the difference can be considered as real and not due to chance. In some cases the differences

TABLE 1. SOIL TYPES AND CLIMATOLOGICAL DATA FOR COTTON VARIETY TESTING LOCATIONS, 1957-59

Location	Soil type	Average annual	Average for growing season	Precipitation					
				Total annual			Total for growing season		
				1957	1958	1959	1957	1958	1959
Weslaco	Willacy loam	22.66	11.47	20.12	31.13	14.36	13.50	4.65	3.69
Beeville	Clareville clay loam	29.70	15.81	40.04	33.06	30.86	25.03	4.09	14.55
Victoria county	Victoria clay	34.69	21.98	47.56	41.01	35.22	32.40	18.63	20.39
Fort Bend county (Sugar Land)	Miller clay	39.50	30.86	51.23	36.99	73.60	31.46	19.49	41.64
Prairie View	Hockley fine sandy loam	34.61	19.04	32.61	35.79	48.76	22.62	17.68	30.07
A&M Plantation	Miller clay	38.61	19.99	57.49	45.00	45.01	30.81	30.82	29.69
Temple	Houston Black clay	34.00	15.36	47.35	33.75	46.87	15.96	14.78	19.91
Greenville	Hunt clay	41.17	22.28	75.24	42.85	46.35	48.97	29.06	20.71
Denton	San Saba clay	32.44	16.07	56.42	28.41	28.44	33.22	15.91	14.70
Iowa Park	Yahola very fine sandy loam	29.42	17.95	39.97	23.34	37.00	24.02	15.45	22.92
Chillicothe	Abilene loam	24.50	13.86	34.21	21.55	28.51	14.28	12.98	18.74
Spur	Abilene clay loam	20.60	14.32	28.38	20.43	23.66	16.01	11.47	15.94
Plainview	Amarillo fine sandy loam	19.84	10.03	24.90	17.18	17.43	12.97	8.15	8.96
Lubbock	Amarillo fine sandy loam	18.29	13.69	24.51	19.91	18.19	18.32	12.15	15.03
Welch	Brownfield loamy fine sand				9.70	6.00			
Brownfield	Brownfield loamy fine sand				6.10	9.40			
Swisher county	Pullman clay loam			20.00	8.40	15.83			
Big Spring	Amarillo fine sandy loam	18.36	10.89	23.14	18.35		14.19	7.57	
Pecos	Reeves silt loam	14.00				11.79			9.89
El Paso	Glendale-Gila silt loams	7.90	5.20	6.52	17.32	3.97	3.11	11.10	2.90

among mean yields were found to be nonsignificant (n/s), meaning that under the conditions of the test none of the differences among average variety yields could be considered real. In the test location summaries presented, nonsignificant differences were caused mainly by variety-year interaction, or inconsistency in relative performance of varieties in different years.

In order to present a comprehensive summary of varietal performance, the data have been summarized for various cotton production areas in Texas. These areas correspond as closely as practicable to the land resource areas of the State, although certain production areas have been combined on the basis of similarity in soil and climatic conditions or general production practices or both. The area summaries given include only those varieties which were grown at all locations.

Lower Rio Grande Plain

Cotton in this area is produced under both irrigated and dryland conditions; the irrigated growths are predominant, however. The principal varieties are open-boll Upland types with medium to long staples, harvested mostly by hand and machine picking. In the dryland areas there is some interest in the large-boll, storm-resistant varieties. Table 2 summarizes the yield data for the irrigated and dryland tests conducted in this area during 1957-59. Performance data for the individual locations are given in Tables 9-13 of the Appendix.

Coast Prairie and Upper Rio Grande Plain

The consolidation of these two regions was considered to be justified because of the similarity in

soil and climatic conditions, as well as the predominant cotton production practices. Cotton yield data are summarized in Table 3 for tests at the Beeville and Prairie View stations and at off-station locations in Nueces, Victoria and Refugio counties. Summaries of performance of varieties at each location are given in Tables 14-18 of the Appendix.

The varieties of principal interest in these areas are both open-boll and storm-resistant types. Hazards of heavy rain and wind damage from late summer Gulf storms have prompted increasing interest in the storm-resistant varieties which are less subject to yield and grade losses from weather effects. The greater portion of the cotton crop is produced under rain-grown conditions, and harvesting is done by hand picking, hand snapping and machine picking.

Brazos River Valley

The cotton variety tests conducted on the A&M College Plantation, College Station and in Fort Bend county (Sugar Land) were located on the alluvial soils of the Brazos River flood plain. Conditions in this region are comparable to those encountered in the alluvial bottomlands of South and Central Texas, such as those of the Trinity, Colorado and Navasota rivers. Soils of such areas are generally productive and rainfall is normally adequate for efficient production of cotton. During recent years, supplemental irrigation has been used and yields under such production systems may approach 2½ to 3 bales per acre. The varieties grown are mainly open-boll types of medium staple, and harvesting is done mostly by hand snapping and machine picking. Yield data are summarized in Table 4 for the 1957-59 cotton variety

tests conducted in Fort Bend county and at A&M Plantation, College Station. Data for the individual locations are given in Tables 19-22 in the Appendix.

Blackland Prairies and Rolling Plains

Although these two areas are discrete in regard to soil type, they are combined in this bulletin mainly because the major production practices, varieties grown and gross climatic conditions are similar. In this region of the State, use of the cotton stripper is increasing, and the overall trend is toward the growing of storm-resistant or stormproof varieties which are relatively early in maturity and adapted to limited rainfall conditions. In certain areas, supplemental irrigation is employed, but the major portion of the crop is produced under dryland conditions.

Yield data for irrigated and dryland tests in these areas are summarized in Table 5; individual location summaries are presented in Tables 23-31 of the Appendix.

TABLE 2. LOWER RIO GRANDE PLAIN - SUMMARY OF AVERAGE YIELDS OF COTTON VARIETIES, 1957-59

Variety	Pounds of lint per acre			
	Irrigated locations			
	Weslaco ¹	Cameron county	Rio Grande City ²	Average
Stoneville 7	1046	1007	1134	1061
Deltapine Smooth Leaf	960	1000	1190	1049
Hale Deltapine 33	1131	966	1039	1044
Deltapine TPSA	943	926	1147	1004
Rex	1055	929	1017	1000
Delfos 9169	968	926	1099	997
Stardel	1006	1027	961	997
Coker 124	932	946	1079	985
Tideland, TPSA No. 1	922	857	1157	978
Coker 100A (WR)	880	922	1063	954
L.S.D.	n/s	70	222	n/s

Variety	Dryland locations		
	Willacy county	McCook ³	Average
Stoneville 7	627	512	570
Wescot	626	437	532
Stardel	608	447	528
Deltapine TPSA	576	467	522
Rex	544	485	514
Lankart Sel. 611	600	413	506
Deltapine Smooth Leaf	603	401	502
Lankart Sel. 57	535	438	486
Coker 100A (WR)	553	416	484
Stormking, TPSA No. 1	557	407	482
Coker 124	540	395	468
Delfos 9169	554	381	468
D&PL-Fox 4	504	425	464
Hale Deltapine 33	511	393	452
Northern Star 11	534	362	448
Tideland, TPSA No. 1	537	359	448
L.S.D.	n/s	57	64

¹1957-58.

²1959 only.

³1959 only.

High Plains

This sizeable area comprises the largest cotton producing area in Texas with an annual production of almost 2 million bales. The average annual rainfall of approximately 20 inches supports relatively low and erratic yields, and much of the crop is grown with supplemental irrigation. The limitations of moisture and low temperatures during a short growing season favor the production of determinate and early-maturing cottons, most of which produce staple lengths 15/16 to 1 inch. Hand harvesting is declining as a general practice and much of the crop is handled with cotton stripping machines. In areas where yields are high, the spindle picker machine proved to be practical. During 1957-59, irrigated variety tests were conducted at Lubbock, Brownfield, Plainview and in Swisher county (Tulia and Kresling). Dryland tests were conducted at Lubbock, Brownfield and Big Spring. Yield summary data are presented in Table 6 and results from individual locations are summarized in the Appendix, Tables 32 - 38.

Trans-Pecos

In the Trans-Pecos area of West Texas, cotton is produced almost exclusively under irrigation. Rainfall in the area is low, averaging about 10 inches annually, and consistently high unit-production is possible with adequate irrigation and fertilizer. This area is noted for the production of long staple, high quality cotton, most of which is of the Acala type. Cotton harvesting is done to a considerable degree by hand picking, but the increasing scarcity of labor and cost of hand harvesting has caused a shift toward the use of mechanical pickers in the area. Cotton variety tests were conducted at Pecos and Ysleta, and the 1957-59 lint yields are summarized in Table 7. Separate summaries of the Pecos and Ysleta tests are presented in Tables 39 and 40 of the Appendix.

The Texas production of the American-Egyptian cottons is limited to the Trans-Pecos area where approximately 28,000 acres are grown. The American-Egyptian type is characterized by an extra-long staple of high quality that is best produced in the high altitude, irrigated regions of West Texas. No performance data concerning the American-Egyptian varieties are presented in this bulletin.

RECOMMENDATIONS OF VARIETIES

Each of the three previous bulletins in the series carried a list of recommended varieties. The recommendations were based mainly on test performance data, but to a large degree they were based also on less objective considerations such as plant and branch characteristics, disease tolerance, adaptability to certain production systems, farmer-preference, availability of seed and such. Although such factors deserve consideration, they are not completely determinant, and the resulting recommendations were more or less arbitrary (depending on the region or area involved) and

TABLE 3. COAST PRAIRIE AND UPPER RIO GRANDE PLAIN—SUMMARY OF AVERAGE YIELDS OF COTTON VARIETIES, 1957-59

Variety	Pounds of lint per acre					Average
	Prairie View	Beeville	Nueces county	Victoria county	Refugio county ¹	
Austin	492	433	588	559	474	509
Stoneville 3202	432	444	565	517	486	468
Stoneville 7	393	347	611	483	439	455
Empire WR	469	377	525	429	454	450
Lankart Sel. 57	450	347	548	459	436	448
Dixie King	475	348	531	422	424	440
Northern Star 11	429	357	524	461	426	439
Brazos	449	317	562	416	410	431
D&PL-Fox 4	397	302	527	472	374	414
Delfos 9169	408	275	509	428	428	410
Coker 124	395	309	524	432	343	401
Deltapine TPSA	358	324	515	425	338	392
Deltapine 15	373	296	526	400	350	389
Deltapine Smooth Leaf	416	318	558	438	211	388
Acala 1517C	275	230	482	332	274	319
Malone's Rowden	392	253	335	346	195	304
Floyd 8G	291	272	322	348	275	302
L.S.D.	93	65	n/s	102	87	51

¹1957-58.

reflected compromise between the use of test data and personal judgment. For reasons discussed below, the practical value of recommendations of specific varieties for the various production areas in Texas was believed questionable, and no such recommendations will be given in this bulletin. Instead, recommendations will be given in terms of varietal types, and the following discussion will point out certain of the more compelling reasons for adopting this practice.

The inherent growth and fruiting behavior of cotton results in considerable variability in performance from location to location or for different years. In fruiting behavior cotton is basically an indeterminate species; that is, it tends to bloom and set fruit over an extended period of time, as long as environmental conditions are favorable. Where favorable growing conditions exist late in the fruiting period, all varieties in a test tend to continue fruiting, and in such cases the differences in performance between "early" and "late" varieties are not manifested. In instances where growing conditions cause the fruiting period to be shorter than usual, the earlier-fruiting varieties may be favored and the contrast with late varieties is exaggerated. These and other flexible growth responses are often manifested in relatively high variety-year or variety-location interactions, and statistical analysis of data from such tests is often inconclusive. As a result, it is difficult to discriminate accurately enough among the average yields of the varieties tested to establish which are the most consistent and the highest performers.

The scope of the cotton variety testing program in Texas is limited by practical as well as technical considerations, and it is impractical to test all of the different varieties available. Consequently, any recommendation of specific varieties should be quali-

fied, inasmuch as all varieties are not tested, and any compilation of recommended varieties may be incomplete and erroneous. Furthermore, the methods and techniques of cotton variety testing may not render a true evaluation of a variety. Practical considerations also make it necessary to compromise on the cultural practices used in variety tests. All varieties in a test are planted at the same time, thinned to the same stands, fertilized and irrigated in a similar manner and defoliated and harvested at the same time. The general cultural methods followed are those which have proved to be best in that particular locality and most efficient for the predominant varieties or types produced in the area. Under such conditions certain varieties in a test may be favored

TABLE 4. BRAZOS RIVER VALLEY—SUMMARY OF AVERAGE YIELDS OF COTTON VARIETIES, 1957-59

Variety	Pounds of lint per acre		
	Irrigated locations		Average
	Fort Bend county	A&M Plantation	
Stoneville 7	932	1216	1074
Deltapine 15	883	1196	1040
Deltapine Smooth Leaf	901	1098	1000
D&PL-Fox 4	859	1121	990
Stoneville 3202	885	1096	990
Deltapine TPSA	848	1106	977
Delfos 9169	864	1089	976
Brazos	838	1070	954
Lankart Sel. 57	822	1085	954
Northern Star 11	783	1011	897
Empire WR	777	985	881
Acala 1517C	804	943	874
Malone's Rowden	668	913	790
Floyd 8G	749	816	782
L.S.D.	92	119	94

while other varieties are penalized because of cultural treatment. In such cases, there may be an appreciable bias, and the evaluations of varietal performance may be confounded or inaccurate.

Recommendation for specific varieties should take into account not only data on yield, boll size, lint percentage, etc., but other factors which are not readily measured in conventional cotton variety tests. Seedling vigor, disease tolerance, plant type, leafiness, fruiting pattern, storm-resistance and other qualities may be important in judging varieties. Measurements such as these, however, are not easy to analyze objectively, nor can they be included practically within the scope of the present testing program.

Many varieties in production today can be traced back to essentially similar origins, and presumably are related closely, which makes specific recommendations difficult. The constant selection pressure for yielding ability, earliness of maturity and efficiency of fruiting has resulted in varieties which are much alike in their general level of production. The most notable differences resulted from selection for various plant and boll types, fiber quality and adaptation to specific growing conditions. These differences among certain varieties become even smaller in the numerous variate forms of certain basic types which resulted from selections for generally slight differences in specific characters.

The preceding discussion enumerates several of the complex problems which cotton research workers should consider when formulating specific variety recommendations. Many of these difficulties can be obviated by considering varietal types rather than varieties, as such. The cataloging of varietal types is somewhat arbitrary, but specific varieties can be conveniently grouped together on the basis of similarity in origin, growth habit, fiber type, boll type, etc. In general, the varieties included within a type classification will be similar in major agronomic and fiber characteristics, and probably will perform in much the same manner under average conditions. This scheme of type classification should afford a better basis for drawing general conclusions about agronomic performance, and still provide latitude for additional judgments by the individual farmer.

TAES Bulletin 938, "Cotton Production in Texas" shows a classification of varietal types devised by Richmond and Niles to include the numerous cotton varieties grown in Texas, as follows:

Type 1. Texas Big Boll. Varieties included in this group are derived principally from the Lone Star, Mebane and Rowden stocks. This Big Boll type was formerly the most popular cotton in Texas and occupied the greatest acreage in the eastern two-thirds of the State. In recent years, the popularity of this type of varieties has lessened considerably, although the

TABLE 5. BLACKLAND PRAIRIES AND ROLLING PLAINS—SUMMARY OF AVERAGE YIELDS OF COTTON VARIETIES IN 1957-59

Variety	Pounds of lint per acre						Average
	Dryland locations						
	Temple	Greenville	Denton	Stephenville ¹	Chillicothe	Spur ²	
Gregg	394	478	445	405	233	419	396
Lankart Sel. 57	380	431	505	376	238	336	378
Paymaster 54B	340	465	446	408	220	359	373
Northern Star 11	322	420	462	402	200	322	355
Blightmaster	360	358	432	412	236	306	351
Empire WR	355	385	469	340	222	316	348
Lockett 88	345	364	453	386	247	285	347
Western Stormproof	325	350	455	366	243	268	334
Deltapine TPSA	317	373	420	342	213	282	324
L.S.D.	92	75	76	n/s	52	n/s	32
Variety	Irrigated locations				Average		
	Iowa Park	Chillicothe	Spur ²	Average			
Gregg	689	672	675	678			
Paymaster 54B	791	619	626	678			
Empire WR	697	638	697	677			
Lankart Sel. 57	771	569	548	629			
Northern Star 11	653	535	582	589			
Western Stormproof	725	469	524	572			
Lockett 88	666	485	564	571			
Blightmaster	653	526	512	563			
Deltapine TPSA	681	445	518	547			
Acala 1517BR-1	612 ³	477	462	516			
L.S.D.	n/s	n/s	149	85			

¹1957-58.

²1958-59.

³Acala 1517C.

still are a good many varieties in production that were developed from the Big Boll stocks. Current varieties that can be considered in this group include Bagley's B17 Rowden, Malone's Rowden, Malone's Mebane, New Mebane, Anton 22, Qualla 60, Kasch LL No. 7, Floyd 8G, Mebane B1 and others.

Type 2. Storm-resistant Big Boll. This type in many respects resembles the Texas Big Boll group, differing principally in the degree of storm-resistance shown in boll characters. Many of the varieties included in this group were selected from older Texas Big Boll stocks; others probably were derived as hybrids between the Big Boll and special breeding stocks. Current varieties that can be included in this group are Northern Star 11, Wacona, Northern Star 5, Lankart Selection 611, Lankart Selection 57, Anton Stormproof 99, Stormking, Kasch SS Strain, Bagley's Storm-Tex 157, Stufflebeme Stormproof, Dunn 7, Malone's Machine Harvester and other similar varieties.

Type 3. Western Open Boll. A number of varieties of this type have been developed in Texas and Oklahoma in recent years. Most are early-maturing varieties, lacking in a high degree of storm-resistance and with rather short staple lengths ($\frac{7}{8}$ to 1 inch). Included in this type are Paymaster 54B, Parrott and Stoneville 62.

Type 4. Texas Stormproof. The practice of harvesting by hand snapping and later by machine stripping, principally in North and Northwest Texas, indicated a need for highly storm-resistant varieties. The first such variety, Macha, was offered for sale in 1936 and became the forerunner of a group of varieties that can be classified under this type. A large number of these highly storm-resistant varieties are now sold in Texas and grown extensively on the High and Rolling Plains. A number of varieties comprise this type, including Lockett Stormproof No. 1, Blightmaster, Paymaster 101, Lockett 88, Gregg, Western Stormproof, Qualla 10, Watson's Stormproof and several others.

Type 5. Trans-Pecos Irrigated. This type included varieties derived primarily from the old "Acala" introductions made from Mexico in 1906. This group has varieties of medium to long staples which are adapted primarily to irrigation on the higher elevations of the Trans-Pecos area. Limited production of this type is found on the fertile irrigated soils of the High Plains and a few small, scattered plantings occur in Central and South Texas. The principal current varieties include Acala 1517C, Acala 1517BR-1; Texacala, Mesilla Valley Acala, Earlistaple and Del Cerro Acala.

Type 6. Medium-staple Open Boll. In Texas, the largest number of varieties grown fall into this class. It is characterized by medium-size bolls with average to poor storm-resistance and with staple lengths usually averaging 1 to 1-1/16 inches. Varieties

of this type are grown mainly in the Lower Rio Grande Valley, the Gulf Coast areas, the bottomlands of Central Texas and elsewhere to a limited extent.

Two groups of varieties can be delineated within the type primarily by the areas in which they were developed. The *Delta and Southeast* group are comprised of medium-boll, medium-staple varieties which were bred primarily in Mississippi, the Carolinas, Georgia, Alabama, Tennessee and Louisiana. The prominent varieties in the *Delta and Southeast* group, which are now offered in Texas, include Deltapine 15, Coker 100A (WR), D&PL-Fox 4, Delfos 9169, Stoneville 3202, Stoneville 7, Auburn 56, Plains, Stardel, Empire WR, Deltapine Smooth Leaf, Coker 124, Pope, Rex and Dixie King.

TABLE 6. HIGH PLAINS—SUMMARY OF AVERAGE YIELDS OF COTTON VARIETIES, 1957-59

Variety	Pounds of lint per acre				Average
	Irrigated locations				
	Lubbock	Brown-field ¹	Plain-view	Swisher county	
Rex	639	859	810	576	721
Austin	617	820	810	536	696
Gregg	706	775	667	622	692
Empire WR	620	755	772	566	678
Lankart Sel. 57	614	786	678	525	651
Paymaster 101	594	757	699	530	645
Paymaster 54B	587	678	767	524	639
Western					
Stormproof	619	836	563	535	638
Lockett 88	648	745	551	600	636
Blightmaster	594	778	596	514	621
Acala 1517C	589	675	587	581	608
Northern					
Star 11	581	703	619	530	608
Brazos	616	759	522	515	603
Dunn 24BR	603	737	620	430	598
Deltapine					
TPSA	584	758	543	464	587
Acala 1517BR-1	542	615	609	496	566
L.S.D.	n/s	n/s	105	n/s	80
Variety	Dryland locations				Average
	Lubbock ²	Brown-field ³	Big Spring ⁴		
Western Stormproof	326	773	196		432
Lockett 88	370	697	215		427
Deltapine TPSA	364	635	206		402
Austin	280	656	205		380
Northern Star 11	334	616	186		378
Lankart Sel. 57	314	600	200		371
Gregg	324	574	183		360
Blightmaster	326	557	174		352
Empire WR	274	582	180		345
Paymaster 54B	262	564	196		341
Paymaster 101	281	423	192		299
Acala 1517C	298	425	164		295
L.S.D.	n/s	134	n/s		n/s

¹1958-59.

²1957-58.

³1958 only.

⁴1957-58.

TABLE 7. TRANS-PECOS — SUMMARY OF AVERAGE YIELDS OF IRRIGATED COTTON VARIETIES, 1957-59

Variety	Pounds of lint per acre		
	Pecos ¹	Ysleta	Average
Acala 1517D	1269	1312	1290
Acala 1517C	1153	1316	1234
Acala 1517BR-1	1242	1139	1190
Wescot	1179	1146	1162
Empire WR	992	1034	1013
Deltapine TPSA	962	1035	998
Northern Star 11	934	1051	992
Mesilla Valley Acala	1008	824	916
Earlistaple	766	894	880
Del Cerro 876 Acala	874	830	852
Lankart Sel. 57	872	768	820
Mesa Acala			
Improved	825	766	796
Malone's Rowden	672	735	704
Floyd 8G	553	549	551
L.S.D.	204	255	153

¹1957 and 1959.

Another group of varieties similar in major respects to the *Delta and Southeast* group were developed mainly by Texas breeders and designated as the *Texas-Delta* group. The varieties in this group are grown mostly along the Gulf Coast, in the Lower Rio Grande Valley and on the bottomlands of Central Texas. Many were selected from the *Delta and Southeast* varieties for better adaptation to Texas conditions; others were developed from hybrids among various varieties of this general type. Principal current varieties included in the *Texas-Delta* group are Deltapine TPSA, Watson's Empire, Deltapine STPSA, Texacala X, Austin, Brazos and Tideland.

Type 7. American-Egyptian. In addition to the upland types grown most extensively in Texas, there

TABLE 8. GENERAL RECOMMENDATIONS OF UPLAND COTTON VARIETAL TYPES IN TEXAS

	Land resource area	Varietal type
A	East Texas Timberlands	Type 6
C	Coast Prairie	Types 2, 6
D	Blackland Prairies	
	Bottomlands, or irrigated uplands	Type 6
	Uplands	Type 2
	for machine stripping	Type 4
E, F	East Cross Timbers and Grand Prairie	Types 2, 6
	for machine stripping	Types 2, 4
G, H	West Cross Timbers and North Central Prairies	Types 2, 4, 6
	for machine stripping	Types 2, 4
J	Rio Grande Plain	
	Lower	
	Irrigation	Type 6,
	Dryland	Types 2, 6
	Upper	Types 2, 6
L	Rolling Plains	
	Irrigated	Types 2, 4
	Dryland	Types 2, 4
M	High Plains	
	Irrigated	Types 2, 4, 6
	Dryland	Types 2, 4, 6
N	Trans-Pecos	Types 5, 6,

is another type which is limited to the Trans-Pecos region. This American-Egyptian type is characterized by extra-long staple of high quality that can be produced to best advantage in the far western areas of Texas. Only one American-Egyptian variety is now available, Pima S-1.

The foregoing discussion enumerated the major differences in plant, boll and fiber characteristics which may serve to delineate the various variety types. All of the recommendations listed in Table 8 are given in terms of types, and reference to the individual test summaries presented in this bulletin should afford supplemental information which will help each farmer in his choice of the variety that will fit best into his farming system and produce the type and quality of fiber he wishes to produce.

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APPENDIX

The tables presented in the Appendix summarize the performance data for the cotton variety tests conducted at each location during the 1957-59 testing period. All varieties included are commercially available, and no data are given on experimental strains tested during this period. In order to present the most comprehensive summaries possible, data for all varieties tested during these 3 years are reported. In many cases, all varieties listed were not grown in all years, and an overall statistical analysis of the yield data was not feasible. In these instances, the analysis was made only on the varieties tested in all years, and L.S.D. values are presented to serve as guides in judging the differences among average yields. Comparable averages, as shown for such tests, were calculated in order to eliminate seasonal effects on performance.

Characters Reported in Tables

Lint yields — pounds of cotton lint produced per acre.

Lint % — percentage of lint in seed cotton. In certain instances only percentages of lint in bur cotton were available, and these are shown as lint % (stripped or pulled).

Boll size — number of bolls required to produce 1 pound of seed cotton.

Staple length — classer's length in 32's of an inch.

Micronaire — an index of fineness (or coarseness) as determined on the micronaire instrument; the higher the index, the coarser the fiber.

L.S.D. — shown only for lint yield; is the least amount by which average yields must differ before the differences can be assumed to be real and not caused by chance. All L.S.D. values reported were based on a probability of 19 to 1. Where differences among average yield could not be statistically discriminated, a notation of n/s (nonsignificant) was given.

TABLE 9. WESLACO — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-58

Variety	Pounds lint per acre		Comparable average			
	1957	1958	Lint yield	Lint %	Boll size	Staple length
Stardel	1242	1131	38.9	78	35	
Stoneville 7	1022	1070	37.2	73	34	
Stoneville 3202	873	1153	35.8	76	34	
Hale Deltapine 33	891	1121	35.8	80	34	
Deltapine STPSA	807	1130	33.7	71	36	
Deltapine Smooth Leaf	834	1087	38.0	80	34	
Deltapine TPSA	806	1106	34.8	73	34	
Dixie King	863	1023	36.6	81	34	
Coker 124	834	1049	34.9	68	34	
Tideland, TPSA No. 1	826	1039	35.0	78	34	
Deltapine 15	776	1068	36.0	80	34	
Coker 100A (WR)	802	1013	36.0	77	34	
Texacala 5455	767	1045	38.0	78	34	
Empire WR	782	979	34.6	76	34	
Brazos	987	876	35.9	69	34	
Watson's Empire	808	929	34.6	64	34	
Texacala 1517C	964	853	36.2	76	34	
L.S.D.	917	806	33.6	63	33	
	651	762	33.7	73	36	
	100	156	n/s			

TABLE 10. CAMERON COUNTY (LA FERIA) — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length	Micro-naire
Stardel	984	1173	924	1027	36.6	85	34	4.0
Stoneville 7	984	1071	967	1007	37.7	87	33	4.2
Deltapine Smooth Leaf	969	1147	883	1000	38.6	91	34	4.3
Stoneville 3202	951	1089	951	997	36.5	84	34	3.8
Hale Deltapine 33			883	966	36.1	84	33	4.6
Coker 124	940	1051	848	946	35.9	81	34	4.4
Deltapine STPSA	927	1107	804	946	37.5	85	34	4.1
Deltapine 15	939	1033	854	942	37.7	88	34	4.2
Rex			846	929	36.3	74	33	4.3
Deltapine TPSA	856	1049	872	926	36.6	87	34	4.2
Delfos 9169	841	1020	916	926	35.2	80	35	4.2
Plains	868		863	924	35.0	80	34	4.0
Coker 100A (WR)	925	1028	814	922	35.5	87	34	4.2
Wescot			836	919	38.1	88	33	4.1
Arizona 44			827	910	39.0	71	34	4.3
Dixie King	865			899	36.8	75	35	
Brazos		984		867	37.0	84	35	
D&PL-Fox 4			779	862	35.0	80	34	4.6
Tideland, TPSA No. 1	812	1013	746	857	37.0	87	33	3.6
Watson's Empire		974		857	35.2	70	33	
Acala 1517C	803			837	36.9	74	36	
Empire WR	767	975		830	36.8	70	33	
Texacala 5455			899	782	37.9	76	35	
L.S.D.	66	78	n/s	70				

TABLE 11. RIO GRANDE CITY (STARR COUNTY) — SUMMARY OF IRRIGATED COTTON VARIETY TEST, 1959

Variety	Pounds lint per acre	Lint %	Boll size	Staple length	Micro-naire
Deltapine Smooth Leaf	1190	37.7	82	34	5.1
Tideland, TPSA No. 1	1157	36.8	71	32	4.3
Deltapine TPSA	1147	37.1	82	33	4.5
Wescot	1134	37.6	78	34	4.8
Stoneville 7	1134	37.1	77	34	4.4
Delfos 9169	1099	34.4	68	36	4.1
Coker 124	1079	35.9	75	33	4.7
Stoneville 3202	1063	36.5	78	32	4.8
Coker 100A (WR)	1063	34.4	73	35	4.2
Deltapine 15	1056	37.7	78	34	4.6
Hale Deltapine 33	1039	35.4	79	32	4.9
Deltapine STPSA	1035	36.9	75	34	4.6
Plains	1034	35.9	72	33	4.5
Rex	1017	36.1	64	33	4.4
D&PL-Fox 4	990	35.2	78	33	5.2
Stardel	961	35.9	80	35	4.6
Arizona 44	839	37.1	65	34	4.4
L.S.D.	222				

TABLE 12. WILLACY COUNTY¹— SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length	Micro-naire
Stoneville 7	404	615	861	627	37.1	86	34	4.2
Wescot			877	626	36.1	84	36	3.9
Stardel		613	851	608	35.3	88	34	3.6
Deltapine Smooth Leaf	339	622	849	603	37.2	84	35	4.0
Lankart Sel. 611	348	550	902	600	36.1	66	33	4.1
Dixie King	347	578		588	34.3	65	36	
Deltapine TPSA	293	584	851	576	36.1	81	35	3.9
Blightmaster	329	555		568	36.0	75	34	
Stormking, TPSA No. 1	306	539	827	557	36.7	60	34	4.3
Delfos 9169	364	561	737	554	33.0	74	36	3.7
C. A. 119		552		554	34.3	83	33	
Coker 100A (WR)	280	599	781	553	35.2	81	35	4.0
Deltapine STPSA		551		553	34.6	84	35	
Rex		596	742	544	34.3	72	35	4.0
Coker 124		570	758	540	33.9	80	36	3.8
Tideland, TPSA No. 1			788	537	35.8	76	35	3.6
Lankart Sel. 57	283	502	821	535	37.0	57	34	4.5
Northern Star 11	282	554	767	534	34.4	67	34	4.1
Empire WR	348	458		528	34.2	66	34	
Paymaster 54B	277	506		517	35.4	72	32	
Hale Deltapine 33			762	511	34.3	82	34	4.1
D&PL-Fox 4			755	504	36.6	78	34	4.9
Bagley's B17 Rowden	230			479	33.6	71	34	
Roger's Texacala	205		501	478	34.4	74	36	
Qualla 60	191			440	34.3	74	33	
Watson's Mebane	203	384		419	34.9	62	32	
L.S.D.	54	84	69	n/s				

¹San Perlita in 1957, Lyford 1958-59.

TABLE 13. MCCOOK (HIDALGO COUNTY) — SUMMARY OF LAND COTTON VARIETY TEST, 1959

Variety	Pounds lint per acre	Lint %	Boll size	Staple length	Micro-naire
Stoneville 7	512	40.2	87	33	
Rex	485	40.5	75	31	
Deltapine TPSA	467	40.1	89	32	
Stardel	447	39.5	87	32	
Lankart Sel. 57	438	42.4	59	31	
Wescot	437	40.0	86	32	
D&PL-Fox 4	425	38.5	87	32	
Stormking, TPSA No. 1	407	41.1	64	31	
Coker 100A (WR)	416	38.4	83	32	
Lankart Sel. 611	413	40.2	70	30	
Deltapine Smooth Leaf	401	40.7	89	32	
Coker 124	395	38.7	86	33	
Hale Deltapine 33	393	39.0	85	30	
Delfos 9169	381	37.6	78	33	
Northern Star 11	362	37.7	63	32	
Tideland, TPSA No. 1	359	39.1	75	31	
L.S.D.	57				

TABLE 14. NUECES COUNTY — SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average			
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length
Pope			892	635	38.1	103	30
Stoneville 7	455	842	537	611	37.6	103	33
Wescot			465	596	38.4	99	34
Rex			462	593	35.8	95	35
Stardel		933	373	590	39.0	110	34
Austin		765	537	588	36.7	86	34
Paymaster 54B				577	38.1	84	30
Stoneville 3202	452	798	402	565	37.4	98	31
Brazos	450	844	392	562	37.5	95	33
Deltapine Smooth Leaf	411	863	400	558	38.7	104	33
Lankart Sel. 57	428	784	433	548	38.4	70	32
Stormking, TPSA No. 1		832	390	548	36.4	78	32
Arizona 44		798		541	37.5	77	32
Dixie King	455	737	401	531	36.8	81	32
D&PL-Fox 4	375	787	419	527	36.3	104	33
Coker 124		797	376	524	35.4	90	32
Northern Star 11	480	710	382	524	35.3	78	33
Deltapine 15	368	836	375	526	38.2	94	33
Empire WR	454	751	369	525	35.3	83	33
Deltapine TPSA	352	799	394	515	36.6	100	33
Delfos 9169	395	784	349	509	35.0	91	34
Texacala X		790	348	506	36.4	94	32
Coker 100A (WR)	347	792	377	505	35.2	101	33
Tideland, TPSA No. 1	325	767	402	498	35.0	99	32
Texacala 5455	346	768		491	36.1	90	32
Acala 1517C	290	747	410	482	34.6	89	35
Parrott		710		453	34.7	84	32
Plains	405	625		449	34.6	93	32
Kasch LL No. 7	312			437	34.8	81	32
Acala 4-42	290			415	36.3	78	32
Malone's Rowden	210			335	31.4	83	33
Floyd 8C	197			322	33.2	82	30
L.S.D.	66	71	68	n/s			

TABLE 15. BEEVILLE — SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Rex			586	450	37.1	77	32	3.8
Austin	354	359	585	433	36.5	73	32	4.2
Empire WR	261	311	558	377	36.6	75	32	4.0
Northern Star 11	260	306	505	357	35.5	68	32	4.3
Stormking, TPSA No. 1	169	382	505	352	37.0	64	30	4.4
Dixie King	272	317	455	348	36.0	71	32	4.4
Stoneville 7	260	294	487	347	37.5	88	32	4.6
Lankart Sel. 57	223	270	547	347	37.9	64	32	4.9
Stoneville 3202	270	298	464	344	37.3	87	32	4.7
Coker 100A (WR)		322	472	342	35.4	84	32	4.4
Deltapine TPSA	204	321	446	324	36.7	88	32	4.6
Deltapine Smooth Leaf		274	472	318	38.6	86	33	4.8
Brazos	206	307	438	317	36.5	82	32	4.1
Tideland, TPSA No. 1	153	312	463	309	34.8	81	32	4.1
Coker 124			445	309	35.0	88	32	4.2
Stardel			440	304	37.2	97	32	4.6
D&PL-Fox 4	213	272	422	302	36.3	86	32	5.1
Deltapine 15	165	281	442	296	38.5	87	32	4.8
Texacala 5455	172	252		280	37.0	77	32	3.9
Delfos 9169	217	238	371	275	34.5	80	33	4.0
Wescot			409	273	36.6	90	33	4.7
Floyd 8G	163		272	254	36.6	66	30	4.7
Texacala X	164	270	376	270	36.4	80	32	3.9
Qualla 60-7	147			256	36.3	74	32	4.8
Malone's Rowden	144			253	34.2	69	32	4.3
Acala 1517C	97	260	332	230	34.9	78	34	3.9
L.S.D.	44	54	48	65				

TABLE 17. VICTORIA COUNTY — SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds Lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Rex			785	641	35.0	82	32	3.9
Austin	312	489	877	559	36.6	79	33	4.1
Lankart Sel. 611		452	805	556	36.4	74	30	4.6
Stoneville 3202	334	501	716	517	37.4	98	32	4.5
Stoneville 7	348	460	641	483	37.1	101	33	4.4
D&PL-Fox 4	284	456	675	472	36.2	95	34	4.8
Northern Star 11	348	411	624	461	35.0	76	32	4.5
Lankart Sel. 57	288	434	656	459	38.2	67	31	4.6
Tideland, TPSA No. 1	300	477	563	447	36.0	92	33	4.2
Deltapine Smooth Leaf	317	426	572	438	37.6	95	34	4.9
Coker 124		442	556	432	34.3	87	33	4.0
Stormking, TPSA No. 1	280	434	578	431	36.0	68	32	4.7
Empire WR	288	465	534	429	34.4	70	33	3.9
Delfos 9169	324	405	556	428	33.6	86	34	4.0
Kasch LL No. 7	281			425	35.5	63	30	5.3
Deltapine TPSA	268	428	578	425	35.4	91	32	4.4
Dixie King	298	414	555	422	34.9	77	32	4.3
Acala 1517BR-1		400	586	421	35.6	81	34	4.0
Brazos	308	416	525	416	36.4	88	33	3.9
Coker 100A (WR)	234	387	583	401	34.5	97	33	4.1
Deltapine 15	296	451	453	400	37.7	94	33	4.6
Watson's Stormproof			516	372	35.2	74	29	4.2
Floyd 8G	204			348	35.4	58	32	4.9
Malone's Rowden	202			346	33.4	70	32	4.5
Acala 1517C	166	404	426	332	34.4	88	35	3.8
Arizona 44	296	366	327	321	35.3	79	33	3.9
Anton 12W		294		294	34.6	74	34	3.8
L.S.D.	56	53	203	102				

TABLE 16. REFUGIO COUNTY — SUMMARY OF COTTON VARIETY TESTS, 1957-58

Variety	Pounds lint per acre		Comparable average				
	1957	1958	Lint	Lint	Boll	Staple	Micro-
			yield	%	size	length	naire
Stoneville 3202	432	541	486	36.6	96	30	4.6
Austin		527	474	38.1	89	33	4.4
Empire WR	391	516	454	35.1	84	32	3.9
Stardel	394		447	34.4	93	33	4.2
Stoneville 7	446	432	439	36.7	96	32	4.6
Lankart Sel. 57	377	495	436	37.7	70	30	5.0
Delfos 9169	382	473	428	34.0	86	34	3.8
Northern Star 11	362	489	426	34.9	76	31	4.6
Dixie King	330	518	424	35.4	77	32	4.4
Brazos	363	456	410	35.5	82	32	4.3
D&PL-Fox 4	340	409	374	35.0	92	33	5.0
Deltapine 15	297		350	37.1	92	33	4.4
Coker 124		396	343	33.5	87	33	3.8
Deltapine TPSA	300	377	338	35.2	92	33	4.4
Lightmaster		372	319	36.2	86	31	4.1
Floyd 8G	222		275	35.6	71	31	4.9
Acala 1517C	182	365	274	33.7	86	34	3.9
Deltapine Smooth Leaf		264	211	37.0	90	33	4.8
Malone's Rowden	142		195	32.5	75	33	4.0
L.S.D.	53	53	87				

TABLE 18. PRAIRIE VIEW — SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Austin	618	322	537	492	36.2	71	31	4.4
Dixie King	636	294	496	475	36.9	66	32	4.6
Paymaster 54B	602	291	532	475	36.7	72	30	4.8
Empire WR	593	320	494	469	35.2	63	32	4.2
Lankart Sel. 57	651	316	384	450	39.2	61	31	5.0
Brazos	687	268	392	449	36.9	75	31	4.6
Coker 100A (WR)	577	229	502	436	35.3	76	32	4.5
Stoneville 3202	651	251	393	432	36.6	84	31	4.7
Deltapine Smooth Leaf	681	190	416	429	38.4	85	32	5.1
Northern Star 11	640	276	370	429	36.8	70	31	4.6
Delfos 9169	656	248	319	408	35.1	79	31	4.6
Stardel		235	376	404	37.4	88	32	4.8
D&PL-Fox 4	617	227	348	397	36.1	85	33	5.2
Texacala 5455	571	233	383	396	37.1	78	31	4.4
Coker 124			365	395	35.3	77	32	5.0
Stoneville 7	570	214	396	393	36.0	86	32	4.6
Malone's Rowden	581	234		392	34.0	66	30	4.6
Pope		209		377	38.6	89	30	4.6
Deltapine 15	647	196	277	373	38.6	84	31	5.0
Texacala X	596	203	312	370	35.9	79	32	4.4
Deltapine TPSA	586	228	259	358	35.6	80	32	4.8
Anton 22		186		354	36.4	68	29	5.1
Kasch LL No. 7	548			350	35.3	65	31	5.3
Plains	555		302	344	35.5	73	32	4.6
Floyd 8G	489			291	34.8	60	30	4.7
Acala 1517C	488	173	165	275	34.9	77	36	4.2
L.S.D.	81	40	88	93				

TABLE 19. FORT BEND COUNTY — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Stoneville 7	1165	929	701	932	37.9	83	34	4.7
Deltapine Smooth Leaf	1142	942	645	901	38.8	83	34	5.2
Rex			627	903	37.0	80	33	3.9
Wescot		894	632	894	38.2	78	34	4.8
Coker 100A (WR)	1124	982	554	887	36.3	81	33	4.8
Stoneville 3202	1140	890	625	885	37.4	84	32	4.7
Deltapine 15	1144	906	599	883	38.6	80	34	4.7
Stardel	1139	899	605	881	37.0	88	34	4.7
Delfos 9169	1090	846	556	864	34.4	73	34	4.2
D&PL-Fox 4			583	859	36.7	77	36	5.1
Dixie King	1102	803	667	857	37.0	65	33	4.7
Arizona 44		866		851	38.0	67	34	4.5
Deltapine TPSA	1099	923	521	848	36.5	82	33	4.7
Tideland, TPSA No. 1	1071	888	583	847	36.8	74	32	4.7
Coker 124	1156	876	506	846	35.7	77	34	4.5
Brazos	1116	826	573	838	36.9	73	33	4.6
Plains	1081	860	563	835	35.8	77	33	4.5
Lankart Sel. 57	1084	769	614	822	38.8	55	32	5.3
Acala 1517C	1089	825	497	804	35.4	70	35	4.2
Auburn 56	1108	900	398	802	34.7	77	32	4.7
Acala 1517BR-1		762	580	802	36.4	68	36	4.5
Austin	1046	735	599	793	36.4	73	33	4.4
Northern Star 11	1074	768		783	35.8	64	32	4.8
Empire WR	1088	698	544	777	35.3	63	33	4.5
Watson's Empire	1067	738	503	769	34.8	63	33	4.5
Floyd 8G	1010			749	35.0	66	31	5.2
Texacala 5455	984	792	446	741	36.7	74	34	4.1
Texacala SS-31		760	437	729	35.4	73	34	4.4
Malone's Rowden	929			668	33.1	62	33	4.5
L.S.D.	79	108	110	92				

TABLE 20. A&M PLANTATION — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Stoneville 7	1262	1174	1213	1216	37.8	80	32	4.8
Deltapine 15	1176	1194	1218	1196	39.7	75	33	4.9
D&PL-Fox 4	1117	1072	1174	1121	35.7	79	33	5.1
Deltapine TPSA	1135	1002	1182	1106	36.4	74	32	4.8
Deltapine Smooth Leaf		1085	1150	1098	38.7	80	34	5.2
Stoneville 3202		1181	1048	1096	37.2	81	32	5.0
Delfos 9169	1089	1073	1106	1089	34.6	69	32	4.3
Lankart Sel. 57	990	1137	1128	1085	37.3	55	32	5.2
Brazos	987	1057	1167	1070	37.2	72	32	4.6
Northern Star 11	971	902	1159	1011	35.5	62	32	4.7
Empire WR	924	915	1117	985	34.8	61	33	4.3
Acala 1517C	830	1003	996	943	34.1	71	34	4.1
Malone's Rowden	875			913	33.5	59	32	4.8
Floyd 8G	778			816	35.4	56	32	5.2
L.S.D.	214	n/s	n/s	119				

TABLE 21. A&M PLANTATION — SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1958-59

Variety	Pounds lint per acre			Comparable average				
	1958	1959		Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
D&PL-Fox 4		875		783	35.1	82	34	
Delfos 9169	658	861		760	33.0	69	35	
Empire WR	663	854		758	34.1	60	33	
Stoneville 3202	670	832		751	35.8	80	32	
Stoneville 7	556	944		750	35.6	85	32	
Deltapine 15	604	868		736	36.0	73	34	
Brazos	601	856		728	36.1	70	32	
Lankart Sel. 57	685	747		716	36.0	55	32	
Northern Star 11	658	700		679	34.1	63	32	
Deltapine TPSA	571	749		660	34.0	76	32	
Deltapine Smooth Leaf	577	733		655	36.5	84	33	
Acala 1517C	564	686		625	32.0	70	36	
L.S.D.	n/s	154		n/s				

TABLE 22. A&M PLANTATION — SUMMARY OF SUPPLEMENTARY COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Austin	1370	792	1317	1160	36.5	72	32	
Stoneville 3202	1448	819		1136	37.0	80	32	
Auburn 56	1198	976	1132	1109	33.9	76	33	
Wescot		855	1150	1102	37.7	74	33	
Empire WR	1290	861	1063	1071	35.1	63	33	
Coker 124	1156	871	1163	1063	36.2	73	32	
Brazos	1342	751		1049	36.8	76	32	
Deltapine 15	1138	637	1233	1046	38.3	80	33	
Deltapine Smooth Leaf	1358	718		1040	38.8	83	32	
Acala 1517BR-1	1236	738	1147	1040	36.2	68	33	
Plains		714	1162	1038	34.3	76	32	
Rex	1474	698	928	1033	33.5	73	32	
Stardel	1075	899	1110	1028	36.4	84	34	
Stoneville 7	1340	639	1089	1023	37.2	84	31	
Tideland, TPSA No. 1	1360	746	955	1020	36.7	77	33	
Pope	1246	748		1000	37.1	80	30	
Deltapine TPSA	1274	677	984	978	36.4	83	33	
Delfos 9169		774		978	33.3	73	32	
Northern Star 11	1252	697		977	34.6	62	32	
Dixie King	1138	833	945	972	34.6	64	32	
Parrott	1170			971	39.0	74	31	
Watson's Empire	1106	903	845	951	35.0	65	32	
Watson's Stormproof		751	951	950	36.1	58	32	
Paymaster 54B	1148			949	37.3	72	31	
Stormking, TPSA No. 1	1089	845	906	947	35.9	57	32	
Texacala 5455	1232	716	870	939	36.7	74	32	
Lankart Sel. 57	1073	934	802	936	38.4	57	31	
Acala 1517C	1191	654	954	933	33.7	69	34	
Coker 100A (WR)	1069	713	977	920	34.6	79	33	
Blightmaster	1059	716	969	915	35.4	75	32	
Lankart Sel. 611	1112			913	35.3	72	32	
Anton 3-45	1188	611		902	36.2	68	30	
Texacala SS-31		699	888	893	34.7	76	34	
D&PL-Fox	1014	745		882	36.8	80	32	
Mesa Acala Improved	1010	732		874	31.0	72	36	
Anton 105		662		866	35.4	60	31	
Anton 12W	908	775		844	35.1	64	34	
Mebane B1	1041			842	32.1	64	31	
Acala 4-42	994			795	35.6	63	33	
Arizona 44	964	749	609	774	35.3	66	34	
Texacala X	882	596	783	754	36.1	79	33	
Mesilla Valley Acala	732			533	32.0	66	38	
L.S.D.	255	178	255	198				

TABLE 23. GREENVILLE—SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length	Micro-naire
Anton 3-45			498	488	39.1	58	30	5.0
Rex	408	460	587	485	38.1	75	32	4.5
Gregg			488	478	38.4	82	28	5.2
Paymaster 54B	422	446	528	465	40.0	73	30	4.8
Stoneville 7	488	450	431	456	39.4	85	32	4.9
Austin	393	459	496	449	38.6	74	32	4.5
Deltapine 15	412	453	449	438	41.4	84	33	4.8
Lankart Sel. 57	393	399	502	431	41.0	61	32	5.3
D&PL-Fox 4	452	409	414	425	38.5	83	32	5.4
Deltapine Smooth Leaf	446	431	394	424	41.2	80	32	5.3
Northern Star 11	388	437	435	420	38.6	66	31	4.9
Bagley's Storm-Tex 157		346	495	412	39.7	62	31	4.8
Delfos 9169	386	425	402	404	36.6	79	33	4.2
Wardel	386			404	38.5	88	33	4.6
Mebane B1	384	369	456	403	35.7	68	31	4.5
Anton Stormproof 99	337	381	485	401	39.1	61	31	4.7
Parrott	376	444	381	400	41.1	71	29	5.5
Malone's Mebane	396	362	422	393	38.6	69	31	4.5
Stormking, TPSA No. 1	334	426	417	392	39.9	63	30	5.0
Lope	351	421		391	40.0	88	30	4.0
New Mebane	352	411		386	38.0	64	30	5.0
Empire WR	362	399	394	385	37.4	68	33	4.7
Malone's								
Machine Harvester	333	349	472	385	39.2	63	30	4.9
Acala 1517BR-1	395	378	365	379	39.0	75	32	4.6
Midland, TPSA No. 1	377	417	334	376	39.9	80	31	4.4
Lankart Sel. 611	297	398	431	375	38.5	70	30	4.5
Texacala X	404	383	335	374	38.6	82	31	4.2
Paymaster 101	361	344	416	374	39.7	78	30	4.7
Brazos	356	360	405	374	38.5	81	31	4.6
Acala 1517C	394	391	334	373	38.0	75	33	4.4
Deltapine TPSA	374	409	335	373	39.8	86	33	4.8
Watson's Empire	339	346	431	372	37.6	68	32	4.6
Watson's Stormproof	392	390	325	369	38.5	80	30	4.7
Lockett 88	276	450	367	364	40.6	74	29	5.0
Blightmaster	354	407	312	358	37.9	79	31	4.5
Qualla 60-9	312	376	383	357	38.7	65	30	5.0
Paymaster Stormrider	324	376		355	37.2	78	28	5.0
Qualla 10	396	370	293	353	39.0	76	29	4.8
Western Stormproof	364	424	262	350	41.3	75	30	4.5
Stufflebeme Stormproof	303	346	394	348	38.4	67	31	4.7
Floyd 8G	332	371	334	346	38.3	67	30	5.0
Malone's Rowden	302	346	359	336	36.3	65	32	4.5
Escot			337	327	42.0	82	30	4.8
Anton 105			333	323	38.9	65	31	4.9
Anton 606	303	331		322	37.0	65	31	5.6
Texacala SS-31		326	325	316	38.2	78	32	4.1
Bagley's B17 Rowden	294			312	36.1	66	31	6.0
L.S.D.	66	50	82	75				

TABLE 24. DENTON—SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length	Micro-naire
Stoneville 7	324	516	708	516	37.7	92	31	4.8
Rex	313	446	786	515	36.9	90	31	4.4
Austin	301	448	797	515	37.0	84	31	4.8
Lankart Sel. 57	347	471	698	505	39.6	69	30	5.1
Qualla 10		475		499	38.1	85	27	5.4
Pope		457		481	35.7	96	30	3.9
Brazos	340	459	635	478	37.4	88	31	4.6
Empire WR	282	419	705	469	36.3	74	31	4.5
Lankart Sel. 611	312	416	673	467	36.6	77	30	4.3
Northern Star 11	264	402	719	463	36.4	73	31	4.7
Deltapine 15	304			460	39.3	115	29	4.6
Western Stormproof	352	482	530	455	39.0	79	29	4.5
Gregg	298	405	661	445	34.3	89	30	4.8
D&PL-Fox 4	297		636	454	35.9	88	31	5.1
Parrott	305	424	631	453	37.7	76	30	5.2
Lockett 88	288	403	668	453	37.3	87	27	5.1
Watson's Empire	281	446	629	452	36.5	73	31	4.5
Malone's								
Machine Harvester	308	355	676	446	37.9	71	30	4.8
Paymaster 54B	262	420	656	446	36.6	87	29	4.8
Watson's Stoneville 62	280			436	37.3	90	29	4.4
Blightmaster	279	420	596	432	36.0	87	30	4.4
Coker 100A (WR)	275			431	37.3	86	30	4.6
Watson's Stormproof	271	422	587	427	35.7	84	29	4.9
Texacala 5455	268			424	38.3	89	30	4.4
Deltapine TPSA	254	441	565	420	36.6	96	31	4.8
Delfos 9169	252	433	572	419	34.3	85	33	4.3
Stormking, TPSA No. 1	270	414	567	417	37.5	71	30	4.7
Paymaster 101	254	364	630	416	36.9	90	28	4.5
New Mebane	231	418		414	38.4	64	30	5.4
Deltapine Smooth Leaf		442	541	414	37.2	96	32	5.2
Qualla 60-7		389		413	37.1	67	30	5.5
Anton Stormproof 99		394	580	409	36.6	70	30	5.0
Kasch LL No. 7	250			406	36.3	67	29	5.1
Malone's Mebane	270	388	544	401	37.1	77	31	4.4
Bagley's Storm-Tex 157	285	394	522	400	37.9	68	31	4.9
Stufflebeme Stormproof	280	376	526	394	36.5	71	30	4.9
Acala 1517C	253	385	531	390	35.2	80	32	4.4
Floyd 8G	202	394		388	35.1	74	30	5.5
Mebane B1	228			384	33.3	84	31	4.4
Anton 22	228	357		382	37.4	66	30	5.4
Malone's Rowden	224	423	498	382	34.8	74	31	5.0
Dunn 24BR			562	382	35.9	82	30	4.6
Bagley's B17 Rowden	211	362		376	34.0	70	30	6.0
Anton 606	195	364		370	34.9	67	31	6.0
Anton 105			521	341	35.5	75	31	4.7
L.S.D.	45	38	76	76				

TABLE 25. TEMPLE - SUMMARY OF COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Rex		575	530	475	36.4	103	30	4.0
Lockett Stormproof No. 1			372	411	38.7	119	30	4.2
Gregg	247	466	468	394	34.9	107	29	4.5
Lankart Sel. 57	262	557	320	380	41.0	91	29	4.9
Brazos	226	601	309	379	37.7	117	30	3.9
Austin	120	587	428	378	37.0	101	30	4.2
Deltapine Smooth Leaf		562	344	376	37.4	105	32	4.5
Lankart Sel. 611	198	622	294	371	36.9	94	29	4.2
Stormking, TPSA No. 1	234	562	301	366	38.4	97	29	4.6
Blightmaster	240	530	309	360	37.0	111	30	4.0
Empire WR	166	527	371	355	36.4	100	30	4.0
New Mebane		547		353	38.7	92	32	5.2
Deltapine 15	194	607	255	352	38.7	112	31	4.1
Delfos 9169	188	551		350	34.6	120	32	4.0
Lockett 88	202	495	339	345	38.4	112	28	4.4
Qualla 60-7		538		344	39.1	95	31	4.9
Bagley's Storm-Tex 157	201	539	288	343	38.3	90	29	4.5
Stoneville 7	147	532	344	341	38.1	128	30	4.5
Paymaster 54B	160	497	362	340	38.8	119	30	4.4
Malone's								
Machine Harvester	197	518		338	38.4	108	29	4.1
Anton Stormproof 99	190	524		338	37.3	86	31	3.9
Kasch SS Strain	181			336	40.5	75	27	4.8
Stufflebeme Stormproof	181	531	280	331	37.6	91	30	4.2
Floyd 8G	148	552		330	36.3	96	29	4.8
Western Stormproof	229	524	221	325	37.7	101	29	3.9
Anton 3-45	149	540	280	323	37.9	104	29	4.7
Northern Star 11	176	485	304	322	36.0	99	29	4.2
Texacala X	174	501		318	36.8	120	30	4.0
Deltapine TPSA	178	494	279	317	36.3	119	30	4.2
Qualla 10		505		311	37.2	111	30	4.2
D&PL-Fox 4	134		279	304	36.3	119	31	4.8
Watson's Stormproof	190	440	221	284	36.4	88	30	4.1
Acala 1517C	85	512	225	274	35.4	115	33	3.9
Anton 606	146	419		263	35.0	87	30	5.4
Malone's Rowden	99	522	151	257	35.9	106	31	4.1
Dunns 24BR			198	237	37.9	105	29	4.2
L.S.D.	20	55	43	92				

TABLE 26. STEPHENVILLE - SUMMARY OF COTTON VARIETY TESTS, 1957-58

Variety	Pounds lint per acre		Comparable average				
	1957	1958	Lint	Lint	Boll	Staple	Micro-
			yield	%	size	length	naire
Blightmaster	343	481	412	36.4	88	32	4.2
Paymaster 54B	344	472	408	38.6	82	29	5.2
Gregg		460	405	35.5	88	31	5.0
Northern Star 11	367	437	402	37.0	71	32	4.8
Brazos	344	455	400	37.4	90	32	4.6
Acala 1517C	370	424	397	35.4	80	35	4.2
Deltapine 15	384	388	386	39.3	102	32	4.5
Lockett 88	369	403	386	39.6	78	30	4.8
Delfos 9169	300	463	382	39.3	84	32	4.3
Stoneville 7	303	461	382	35.6	94	32	4.7
Lankart Sel. 57	283	468	376	39.8	64	30	5.4
Stufflebeme Stormproof	247	403	375	36.4	70	30	4.6
D&PL-Fox	254	494	374	34.2	97	32	4.6
Western Stormproof	292	439	366	40.0	92	30	4.8
Floyd 8G	309		364	34.5	65	30	5.2
Deltapine Smooth Leaf		412	357	40.7	99	32	5.6
Paymaster 101	331	376	354	37.6	90	30	4.6
Qualla 10		400	345	39.0	92	30	5.0
Deltapine TPSA	303	382	342	38.0	100	31	4.6
Empire WR	266	413	340	35.5	75	32	4.4
Malone's Rowden	265		320	34.7	73	32	4.6
L.S.D.	n/s	66	n/s				

TABLE 27. CHILLICOTHE - SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint %	Boll	Staple	
				yield	pulled	size	length	
Dunn 7		376		265	25.8		27	
Rex		366	215	252	24.8	92	30	
Deltapine Smooth Leaf	160	374		250	24.8	125	30	
Lockett 88	172	374	194	247	25.9	98	29	
Malone's								
Machine Harvester	162	362	207	244	26.1	76	31	
Western Stormproof	149	381	200	243	26.1	90	29	
Lankart Sel. 611	154	358	211	241	24.7	82	30	
Anton Stormproof 99	159	351		238	25.6	71	30	
Lankart Sel. 57	162	328	224	238	25.6	82	30	
Lockett								
Stormproof No. 1	158	404	151	238	25.3	100	28	
Stormking, TPSA No. 1	166	364	180	237	24.8	78	31	
Blightmaster	157	331	220	236	24.8	96	30	
Gregg	146	316	238	233	22.5	99	29	
Northern Star 5	175	322		232	22.5	88	30	
Coker 100A (WR)		342		231	24.8		29	
Parrott	148	341	198	229	25.3	91	29	
Austin	119	363	189	224	23.3	100	30	
D&PL-Fox 4	135	347		224	24.4	110	30	
Kasch SS Strain	153	329		224	24.1	86	29	
Empire WR	122	345	198	222	23.6	87	31	
Bagley's Storm-Tex 157	146	326		220	24.4	79	30	
Paymaster 54B	106	349	205	220	22.6	108	29	
Paymaster 101	153	309	191	218	23.7	98	29	
Brazos	139	328	180	216	23.7	110	30	
Malone's Mebane	138	322		214	24.2	93	29	
Anton 3-45	133	341	167	214	24.5	83	29	
Pope	115	346		214	25.1	112	30	
Deltapine TPSA	134	325	179	213	23.8	104	31	
Northern Star 11	114	287	199	200	23.0	85	30	
Watson's Stormproof	132	313	153	199	24.2	84	30	
Acala 1517BR-1	135	288	169	197	23.3	100	32	
Texacala 5455	129	296	165	197	23.1	101	29	
Qualla 60-7	118			196	22.2	84	29	
Kasch LL No. 7	115			193	22.8	91	29	
Anton 12W	112			190	23.9	94	32	
Mebane B1	107			185	22.9	84	31	
Acala 1517C	132	252	142	175	21.3	104	33	
L.S.D.	29	51	35	52				

TABLE 28. CHILLICOTHE - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint %	Boll	Staple	
				yield	pulled	size	length	
Gregg		750		672	23.9		30	
Empire WR			629	638	23.3	62	34	
Paymaster 54B	550			619				
Rex			597	606	23.9	64	34	
Lankart Sel. 57	504	589		614	569	25.8	60	
Stormking, TPSA No. 1				534	543	24.6	57	
Northern Star 11	445	596	565	535	24.6	58	32	
Lockett								
Stormproof No. 1	469		509	528	24.2	78	30	
Blightmaster	366	654	558	526	25.0	76	33	
Texacala 5455	474	582	477	511	23.5	70	33	
Parrott	498	525	440	488	24.6	78	31	
Lockett 88	330	736	388	485	26.3	86	31	
Acala 1517BR-1	489	458	485	477	22.8	73	34	
Western Stormproof	497		363	469	26.3	68	30	
Deltapine TPSA	388		424	445	23.7	76	32	
L.S.D.	91	82	90	n/s				

TABLE 29. SPUR - SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1958-59

Variety	Pounds lint per acre		Comparable average				
	1958	1959	Lint	Lint	Boll	Staple	Micro-
			yield	%	size	length	naire
Gregg	355	483	419	32.9	89	30	4.0
Paymaster 54B	317	401	359	33.8	80	30	3.8
Lankart Sel. 611		348	352	33.7	75	31	3.7
Northern Star 5	348		344	37.0	68	32	3.4
Stormking, TPSA No. 1		339	343	32.6	77	32	3.8
Austin	374	303	338	34.3	93	30	3.4
Paymaster 101	306	371	338	34.6	90	32	3.7
Lankart Sel. 57	317	355	336	37.2	70	30	4.0
Malone's	330		326	36.8	64	30	4.0
Northern Star 11	329	314	322	34.4	82	30	3.6
Parrott	307	333	320	36.1	85	30	4.2
Empire WR	340	291	316	34.2	78	32	3.6
Blightmaster	304	307	306	32.6	96	30	3.3
Anton Stormproof 99	301		297	37.9	65	31	3.7
Dunn 7	294		290	37.0	91	30	3.4
Lockett 88	362	208	285	35.3	102	28	3.8
Deltapine TPSA	325	240	282	32.8	102	32	3.8
Malone's							
Machine Harvester	285		281	38.9	63	30	3.6
A. 119	252	308	280	32.4	92	30	3.6
Western Stormproof	327	209	268	37.0	90	30	3.6
Agley's Storm-Tex 157	270		266	29.0	61	30	3.5
Dunn 24BR		251	255	33.1	92	28	3.7
Lockett Stormproof No. 1		244	248	30.4	97	30	3.4
L.S.D.	n/s	69	n/s				

TABLE 30. SPUR - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1958-59

Variety	Pounds lint per acre		Comparable average				
	1958	1959	Lint	Lint	Boll	Staple	Micro-
			yield	%	size	length	naire
Paymaster 101		720	774	35.5	64	31	4.2
Austin	784	742	763	37.6	66	32	3.8
Tex	776		722	38.9	72	34	3.7
Dunn 7	766		712	40.4	65	34	4.5
Empire WR	776	618	697	36.2	62	34	3.8
Gregg	714	636	675	34.7	72	30	4.4
Parrott	649	634	642	36.2	65	31	5.0
Paymaster 54B	644	607	626	37.8	66	32	4.2
Northern Star 11	597	568	582	35.6	62	32	4.1
Stormking, TPSA No. 1		513	567	33.3	52	31	4.1
Lockett 88	730	398	564	35.8	78	31	4.2
Lankart Sel. 57	595	502	548	38.0	56	32	4.4
Anton Stormproof 99	595		541	38.0	57	33	4.1
Acala 1517BR-1	605	444	524	35.2	74	36	3.8
Western Stormproof	578		524	38.6	64	32	4.4
Deltapine TPSA	635	401	518	36.2	78	34	4.4
Blightmaster	544	479	512	33.9	71	31	3.8
Agley's Storm-Tex 157	552		498	37.7	59	33	4.7
A. 119	491	486	488	33.8	71	30	4.1
Acala 1517C	545	380	462	35.0	68	36	3.7
Dunn 24BR		398	452	33.7	77	28	3.5
L.S.D.	111	154	149				

TABLE 31. IOWA PARK - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-
				yield	%	size	length	naire
Paymaster 54B	716	910	746	791	38.4	65	31	4.8
Lankart Sel. 57	704	891	719	771	39.0	55	32	4.9
Western Stormproof	788	892	495	725	38.9	65	30	4.6
Deltapine Smooth Leaf			606	722	37.5	78	34	5.4
Empire WR	663	847	581	697	35.1	58	33	4.3
Paymaster 101	562	843	677	694	36.4	65	30	4.9
Kasch LL No. 7	642			691	35.4	62	30	4.7
Gregg	485	918	665	689	37.8	80	30	4.6
Deltapine TPSA	716	819	508	681	36.6	74	32	4.5
Dunn 7		835		670	37.1	62	32	4.5
Lockett 88	647	895	456	666	36.6	73	30	4.7
Blightmaster	575	822	563	653	35.8	70	33	4.2
Northern Star 11	570	846	542	653	36.1	64	32	4.2
Watson's Stormproof			534	650	34.4	69	32	4.8
Lockett								
Stormproof No. 1	586	802	533	640	36.5	73	30	4.2
Dunn 24BR			502	618	35.9	69	33	4.4
Acala 1517C	677	759	399	612	34.1	63	35	4.0
Floyd 8G	561			610	35.7	65	31	4.4
Malone's Rowden	540			598	33.6	65	32	4.2
Anton Stormproof 99		742		577	36.5	56	32	4.4
L.S.D.	55	68	61	n/s				

TABLE 32. LUBBOCK - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average					
	1957	1958	1959	Lint	Lint	Boll	Staple	Micro-	
				yield	%	size	length	naire	
Gregg	767	862	488	706	36.1	85	29	4.0	
Lockett 88	641	797	508	648	36.9	91	29	3.6	
Rex			474	639	38.0	86	30	3.7	
Dunn 7	671	746		626	35.4	68	30	3.4	
Empire WR	665	692	504	620	35.9	66	30	3.6	
Western Stormproof	669	757	430	619	38.0	78	29	3.6	
Austin				452	617	37.0	91	29	3.7
Brazos		724	442	616	35.8	74	30	3.4	
Lankart Sel. 57	708	671	464	614	37.9	61	30	4.1	
Dunn 24BR			438	603	36.0	89	29	3.7	
Blightmaster	647	638	496	594	35.2	86	30	3.6	
Paymaster 101	692	718	372	594	36.9	81	30	3.6	
Acala 1517C	724	618	426	589	35.1	75	32	3.1	
Paymaster 54B	608	716	438	587	38.6	82	30	3.7	
Deltapine TPSA	675	699	378	584	35.1	78	30	3.2	
Northern Star 11	669	659	414	581	35.0	69	30	3.6	
Lankart Sel. 611	654	667		578	36.0	73	31	3.8	
C. A. 119	603	712		575	34.8	83	30	3.4	
Lockett									
Stormproof No. 1	615			549	36.9	74	30	3.4	
Acala 1517BR-1		572	446	542	35.9	80	32	3.2	
Floyd 8G	571			505	31.9	72	30	3.5	
Malone's Rowden	551			485	32.9	67	32	3.1	
L.S.D.	54	98	81	n/s					

TABLE 33. BROWNFIELD — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1958-59

Variety	Pounds lint per acre		Comparable average				
			Lint yield	Lint %	Boll size	Staple length	Micro-naire
	1958	1959					
Rex		806	859	37.8		30	4.0
Western Stormproof	1045	626	836	39.4	63	30	3.8
Austin	845	796	820	40.0	67	30	4.2
Lankart Sel. 57	871	700	786	41.8	57	30	4.8
Blightmaster	856	700	778	37.8	70	28	4.4
Gregg	778	772	775	37.6	74	29	4.4
Brazos	920	598	759	37.6	76	30	4.0
Deltapine TPSA	916	600	758	38.0	76	32	4.2
Paymaster 101	834	680	757	38.8	67	29	3.9
Empire WR	838	672	755	38.5	67	31	4.1
C. A. 119	843		754	37.7	71	31	3.5
Lockett 88	852	638	745	39.0	71	29	4.4
Dunn 24BR		648	737	36.8		29	3.8
Dunn 7	817		728	39.5	65	29	4.5
Northern Star 11	772	634	703	37.4	65	30	4.2
Paymaster 54B	753	602	678	42.0	86	28	4.0
Acala 1517C	756	594	675	39.6	71	34	3.6
Acala 1517BR-1	656	574	615	40.1	67	34	4.0
L.S.D.	172	52	n/s				

TABLE 35. SWISHER COUNTY¹— SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average			
				Lint yield	Lint %	Boll size	Staple length
	1957	1958	1959				
Gregg	531	886	448	622	36.0	81	30
Lockett 88	421	942	436	600	36.8	80	27
Acala 1517C	447		440	581	39.2	83	29
Rex		784	526	576	37.8	72	30
Empire WR	320	865	514	566	35.4	70	31
Dunn 7	347	876		554	40.5	73	30
Austin		743	488	536	36.9	71	29
Western Stormproof	302	947	356	535	36.6	82	28
Paymaster 101	484	695	410	530	38.8	78	29
Northern Star 11	340	810	440	530	37.0	64	30
Lankart Sel. 57	329	817	430	525	35.6	56	30
Paymaster 54B	485	708	378	524	36.8	72	29
Brazos		761	428	515	38.2	72	30
Blightmaster	294	751	498	514	37.5	76	29
C. A. 119	369	763		508	36.8	79	28
Acala 1517BR-1		724	428	496	37.4	76	30
Deltapine TPSA		698	390	464	34.0	88	32
Dunn 24BR			314	430	38.2	67	28
L.S.D.	44	122	59	n/s			

¹Tulia in 1957-58. Kress in 1959.

TABLE 34. PLAINVIEW — SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable average				
				Lint yield	Lint %	Boll size	Staple length	Micro-naire
	1957	1958	1959					
Austin	551	858	1022	810	36.9	56	32	3.8
Rex			1022	810	36.4	60	34	
Dixie King		857		803	38.1	59	34	2.8
Empire WR	468	842	1006	772	36.9	53	33	4.2
Paymaster 54B	638	738	883	767	39.5	60	31	3.6
Paymaster 101	461	749	886	699	38.8	61	31	3.5
Lankart Sel. 57	344	766	925	678	38.9	51	32	3.6
Gregg	425	754	823	667	37.8	69	31	4.4
Dunn 24BR			832	620	37.8	70	30	
Northern Star 11	376	680	800	619	37.2	57	32	3.4
Acala 1517BR-1	378	576	873	609	37.8	61	34	3.2
Blightmaster	290	721	778	596	37.3	68	32	3.7
Acala 1517C	314	555	891	587	36.6	63	34	2.7
Western Stormproof	252	678	758	563	38.7	68	31	3.2
Lockett 88	225	621	808	551	38.4	72	30	3.4
Lockett Stormproof No. 1	311	571		547	37.2	74	30	3.0
Deltapine TPSA	280	580	768	543	37.2	71	32	3.4
Floyd 8G	267			533	34.8	56	30	3.5
Malone's Rowden	266			532	35.2	59	29	3.4
Brazos			734	522	37.2	74	33	
L.S.D.	84	70	133	105				

TABLE 36. LUBBOCK — SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1957-58

Variety	Pounds lint per acre		Comparable average			
			Lint yield	Lint %	Boll size	Staple length
	1957	1958				
Dunn 7	283	456	370	40.1	91	29
Lockett 88	322	418	370	38.6	90	29
Rex		428	368	38.9	84	33
Deltapine TPSA	288	440	364	37.6	98	32
Brazos		394	334	37.5	90	31
Northern Star 11	275	393	334	34.9	78	30
Acala 1517BR-1		390	330	37.3	82	34
Blightmaster	259	393	326	36.7	100	30
Lockett Stormproof No. 1	266		326	37.6	88	28
Western Stormproof	246	406	326	40.8	92	30
Gregg	299	348	324	34.3	100	28
Lankart Sel. 57	299	329	314	38.7	73	30
Lankart Sel. 611	255	373	314	36.5	81	30
C. A. 119	247	372	310	36.4	105	31
Stufflebeme Stormproof		363	303	38.2	80	31
Acala 1517C	216	381	298	36.0	88	32
Floyd 8G	225		285	35.6	81	30
Paymaster 101	264	298	281	37.9	98	29
Austin	189	372	280	38.8	81	30
D&PL-Fox 4	172	389	280	36.4	100	32
Malone's Rowden	220		280	33.6	81	32
Empire WR	185	363	274	38.3	68	30
Paymaster 54B	262	262	262	37.9	83	30
L.S.D.	63	66	n/s			

TABLE 37. BROWNFIELD - SUMMARY OF DRYLAND COTTON VARIETY TEST, 1958

Variety	Pounds lint per acre		Lint %	Boll size	Staple length	Micro-naire
Western Stormproof	773		41.7	76	30	4.2
Lockett 88	697		40.6	93	26	4.2
Austin	656		42.6	81	30	3.5
Deltapine TPSA	635		38.4	101	30	3.8
Dunn 7	620		42.4	78	28	4.4
Brazos	617		41.3	95	30	3.2
Northern Star 11	616		39.1	73	30	4.1
Lankart Sel. 57	600		44.4	64	30	4.6
Empire WR	582		40.3	91	32	4.4
Gregg	574		41.4	81	31	4.1
C. A. 119	566		38.9	91	31	3.2
Paymaster 54B	564		40.5	97	32	3.8
Blightmaster	557		42.4	91	32	4.0
Acala 1517BR-1	445		41.4	86	32	3.4
Acala 1517C	425		41.5	84	32	3.6
Paymaster 101	423		41.1	78	30	3.8
L.S.D.	134					

TABLE 39. PECOS - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957 AND 1959

Variety	Pounds lint per acre		Comparable average			
	1957	1959	Lint yield	Lint %	Boll size	Staple length
Acala 1517D		1226	1269	36.8	60	38
Acala 1517BR-1	1279	1204	1242	38.6	59	38
Wescot		1136	1179	40.8	67	35
Acala 1517C	1205	1101	1153	37.4	58	38
Mesilla Valley Acala	956	1061	1008	35.5	58	38
Empire WR	1022	962	992	37.8	54	34
Deltapine TPSA	1074	850	962	38.2	68	35
Northern Star 11	977		934	36.4	59	34
Del Cerro 876 Acala		831	874	33.6	57	41
Lankart Sel. 57	954	790	872	39.6	54	32
Mesa Acala Improved		782	825	31.9		39
Earlistaple	809		766	31.9	67	39
Malone's Rowden	715		672	35.9	57	35
Floyd 8G	596		553	37.7	59	34
L.S.D.	157	191	204			

TABLE 38. BIG SPRING - SUMMARY OF DRYLAND COTTON VARIETY TESTS, 1957-58

Variety	Pounds lint per acre		Comparable average				
	1957	1958	Lint yield	Lint %	Boll size	Staple length	Micro-naire
Lockett 88	286	184	215	36.0	84	28	4.8
Lockett Stormproof No. 1	238	178	208	36.2	92	29	4.2
Gains	237		207	35.0	89	31	4.5
Deltapine TPSA	224	187	206	35.0	87	32	4.5
Austin	228	182	205	35.6	82	32	4.4
Dunn 7	229	181	205	36.8	86	31	4.6
Northern Star 5	240	165	202	36.2	83	30	4.4
Lankart Sel. 57	237	163	200	39.6	70	30	4.6
Parrott	229		199	36.2	87	31	5.0
Magley's Storm-Tex 157	257	140	198	38.2	73	30	5.1
Masch LL No. 7	226		196	33.6	77	32	5.2
Paymaster 54B	217	176	196	37.2	92	30	4.2
Western Stormproof	239	152	196	38.0	83	30	4.2
Paymaster 101	218	166	192	35.2	94	30	4.4
Malone's							
Machine Harvester	219		189	36.5	73	31	4.6
Northern Star 11	207	164	186	35.2	78	32	4.4
Texacala 5455	214		184	35.9	89	34	4.0
Gregg	212	154	183	34.0	98	30	4.6
Huffelbeme Stormproof	230	133	182	34.6	72	32	4.7
PL-Fox 4	211		181	33.2	91	33	4.9
Empire WR	216	144	180	34.6	74	32	4.5
Watson's Stoneville 62	209		179	34.3	91	32	4.6
Masch SS Strain	208		178	37.3	73	32	4.7
Blightmaster	192	155	174	34.4	98	31	4.1
Lankart Sel. 611	203		173	35.4	78	33	3.8
Lebane BI	202		172	32.9	80	31	4.3
Watson's Stormproof		141	171	34.5	65	32	4.2
C. A. 119	187	149	168	35.0	88	31	4.2
Acala 1517C	180	148	164	33.4	86	35	4.0
Anton Stormproof 99	197	129	163	36.2	73	32	4.7
Malone's Rowden	193		163	32.4	78	33	4.2
Magley's B17 Rowden	176		146	30.5	81	32	5.9
Malla 60-7	168		138	34.2	78	32	4.9
Floyd 8G	166		136	34.9	73	32	4.8
L.S.D.	45	29	n/s				

TABLE 40. YSLETA - SUMMARY OF IRRIGATED COTTON VARIETY TESTS, 1957-59

Variety	Pounds lint per acre			Comparable Average			
	1957	1958	1959	Lint yield	Lint %	Boll size	Staple length
Acala 1517C	1316	1461	1171	1316	38.4	60	38
Acala 1517D			1102	1312	37.4	61	38
Wescot			936	1146	41.4	68	35
Acala 1517BR-1	1183	1300	933	1139	39.0	59	37
Coker 124			882	1092	38.5	71	35
Acala 4-42		1230		1064	39.4	53	35
Northern Star 11	1095			1051	38.6	58	34
Deltapine TPSA	1109	1236	761	1035	39.0	70	35
Empire WR	1070	1219	813	1034	38.3	55	35
Arizona 44WR		1185		1019	36.9	54	36
Deltapine Smooth Leaf			779	989	40.3	74	36
Stoneville 7			751	961	39.3	74	34
Earlistaple	938			894	34.6	65	41
Delfos 9169			652	862	37.9	66	35
Del Cerro 876 Acala			620	830	34.2	58	41
Mesilla Valley Acala	910	947		824	35.0	60	41
Brazos			607	817	39.1	62	34
Texacala SS-31		951		785	38.1	68	35
Lankart Sel. 57	836	907	560	768	39.8	49	33
Mesa Acala Improved		932		766	32.7	60	41
Malone's Rowden	779			735	36.4	56	36
Floyd 8G	593			549	37.9	55	33
L.S.D.	190	137	149	255			

State-wide Research



The Texas Agricultural Experiment Station is the public agricultural research agency of the State of Texas, and is one of the parts of the A&M College of Texas.



Location of field research units of the Texas Agricultural Experiment Station and cooperating agencies

ORGANIZATION

IN THE MAIN STATION, with headquarters at College Station, are 13 subject matter departments, 3 service departments, 3 regulatory services and administrative staff. Located out in the major agricultural areas of Texas are 20 substations and 10 field laboratories. In addition, there are 13 cooperating stations owned by other agencies. Cooperating agencies include the Texas Forest Service, Game and Fish Commission of Texas, Texas Prison System, U. S. Department of Agriculture, University of Texas, Texas Technological College, Texas College of Arts and Industries and the King Ranch. So many experiments are conducted on farms and ranches and in rural homes.

THE TEXAS STATION is conducting about 450 active research projects, grouped in 25 programs, which include all phases of agriculture in Texas. Among these are:

- | | |
|--------------------------------------|---------------------------------|
| Conservation and improvement of soil | Beef cattle |
| Conservation and use of water | Dairy cattle |
| Grasses and legumes | Sheep and goats |
| Grain crops | Swine |
| Cotton and other fiber crops | Chickens and turkeys |
| Vegetable crops | Animal diseases and parasites |
| Citrus and other subtropical fruits | Fish and game |
| Fruits and nuts | Farm and ranch engineering |
| Oil seed crops | Farm and ranch business |
| Ornamental plants | Marketing agricultural products |
| Brush and weeds | Rural home economics |
| Insects | Rural agricultural economics |
| | Plant diseases |

Two additional programs are maintenance and upkeep, and central services.

OPERATION

Research results are carried to Texas farmers, ranchmen and homemakers by county agents and specialists of the Texas Agricultural Extension Service

AGRICULTURAL RESEARCH seeks the WHATS, the WHYS, the WHENs, the WHEREs and the HOWs of hundreds of problems which confront operators of farms and ranches, and the many industries depending on or serving agriculture. Workers of the Main Station and the field units of the Texas Agricultural Experiment Station seek diligently to find solutions to these problems.

Today's Research Is Tomorrow's Progress