A92-1030-12,500-L180

TEXAS AGRICULTURAL EXPERIMENT STATION

A. B. CONNER, DIRECTOR
COLLEGE STATION, BRAZOS COUNTY, TEXAS

BULLETIN NO. 417 NOVEMBER, 1930

DIVISION OF AGRONOMY

Varieties of Cotton for North Texas

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**In cooperation with U. S. Department of Agriculture.

In tests of 179 varieties and strains of cotton at Substation No. 6, Denton, Texas, during the 17-year period, 1913 to 1929, inclusive, Half and Half made the largest average yield, 283 pounds of lint per acre. It was followed by Sunshine, New Boykin, Harper, and Cliett Superior, with average yields of 248, 239, 238, and 236 pounds of lint per acre, respectively. While Half and Half had the highest average yield and also the highest gin turn-out, 41.5 per cent, it has certain objectionable features, such as small bolls and a short staple averaging only $\frac{3}{4}$ inch, which makes it untenderable on future contracts. On the other hand, the better-staple varieties, such as Sunshine, New Boykin, Harper, and Cliett Superior are big-boll, storm-proof varieties with a gin turn-out ranging from 34 to 39.4 per cent, and produce staple of tenderable length, averaging 31/32 to 1 inch.

The selection of a variety of cotton for North Texas will depend largely on the system of marketing and prices paid. If cotton is bought on the "hog-round," or average basis, and no more is paid for staple cotton than for short and untenderable cotton, such as Half and Half, then Half and Half, on account of its higher yield, would be the most profitable variety to grow. If suitable differences in prices, however, can be obtained to compensate for the lower yield, then Sunshine, New Boykin, Harper, and Cliett Superior, which produce lint of tenderable length, 31/32 to 1 inch, would be more profitable to grow than Half and Half.

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BULLETIN NO. 417 NOVEMBER, 1930

VARIETIES OF COTTON FOR NORTH TEXAS

P. B. DUNKLE

Varieties of cotton have been tested at Substation No. 6, Denton, Texas, since 1913, with the exception of 1914, when the station was being moved to a new location, and 1915, when the new location was not yet prepared for experimental work. This work on variety testing at Denton is part of the more comprehensive and extensive study of varieties of cotton conducted by the Texas Agricultural Experiment Station in the various agricultural regions of the State. The results obtained with varieties of cotton at the experiment stations at Angleton, Lubbock, Chillicothe, College Station, Nacogdoches, Temple, and Troup have been reported in Bulletins 354, 364, 366, 369, 384, 399, and 406. The results obtained at Substation No. 6, Denton, from 1913 to 1929, inclusive, are published in this Bulletin, which forms the eighth of the series of bulletins on varieties of cotton.

Substation No. 6 is located in central north Texas five miles west of Denton, Denton County, forty miles northwest of Dallas, and forty miles north and slightly east of Fort Worth in the Fort Worth Prairie. Denton is served by the Texas & Pacific and the M. K. & T. Railroads. The elevation is approximately 600 feet above sea level. In general the Fort Worth or Grand Prairie region is undulating to gently rolling and is dissected by a large number of streams. The prairies are treeless with the exception of narrow strips of timber along the larger streams. The soils of the region are, in general, prevailingly grayish or brownish in color with reddish subsoils. The soils of the Denton and San Saba series are the most extensive soils of the region, especially in Denton County. The surface soils of the Denton series are brown and the subsoils are brown or yellowish brown. The soils of the San Saba series are black in color, the subsoils ranging from black through brown or even yellow. The San Saba clay is naturally productive and considered one of the best farming soils of the region.

The variety tests with cotton at Denton have been conducted on San Saba clay. Since this soil is one of the most extensive soils of the region, the results of the variety test are probably applicable to the region as a whole.

WEATHER CONDITIONS

The average annual rainfall at Substation No. 6, Denton, Texas, for the 12 years, 1918 to 1929, inclusive, was 32.64 inches (Table 1). The yearly rainfall ranged from 49.93 inches in 1920 down to 19.62 inches in 1924.

It is interesting to note that the average yields of cotton were not in proportion to the annual rainfall nor to the total rainfall of the growing season (Table 1). The yields were affected more by the distribution of rainfall, especially during July and August, the critical months, than by the total rainfall. Usually the rainfall of the region is sufficient in quantity for satisfactory cotton production, but it is not always favorably distributed.

In some years the excessive rainfall or continued, rainy, showery weather during July and August is conducive to heavy infestation of boll weevil and bollworm, resulting in low yields. The yield of cotton is also reduced considerably in some years by prolonged dry weather during the growing season.

The average length of the frost-free period for the twelve years was 235 days. The shortest frost-free period, 207 days, occurred in 1921, while the longest, 274 days, occurred in 1922. The average date of the last killing frost in the spring was March 27, and the average date of the first killing frost in the fall was November 10. The latest killing frost on record in the spring was April 17, 1921, and the earliest killing frost in the fall was October 24, 1929.

METHOD OF CONDUCTING TESTS

Prior to 1920 a large number of varieties, as many as 52 in 1917 and 45 in 1919, were included in the tests. Since 1920 only the leading commercial varieties have been grown in the tests. The elimination of the less desirable varieties made it possible to give the others more thorough tests. Each year planting seed was secured direct from the respective breeders.

The varieties were grown in rows three feet apart and the plants spaced as near as possible a uniform distance of ten inches in the row. Each variety was used two to three times in the test to insure more accurate results. No commercial fertilizers have been used in the variety tests.

Unless weather conditions prevented, the cotton in the variety tests was planted between the 10th and 20th of April, all varieties being planted on the same date and in the same manner. As a general practice, the cotton was planted on lister beds, which left the seed on or slightly above the level. All varieties were cultivated uniformly on the same dates and as frequently as necessary to keep down grass and weeds.

Table 1.—Monthly and yearly rainfall in inches at Denton, Texas, 1918 to 1929, inclusive, with 12-year average

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	12-year average
Total rainfall for June, July, Aug...	5.56	11.42	17.74	6.04	4.08	7.86	3.61	5.54	11.86	7.72	10.00	2.31	7.81
Acre yield of lint cotton in pounds of Lone Star.....	98	283	6	239	156	238	293	hail	250	233	375	284	*233
Total rainfall.....	35.18	45.75	49.93	22.89	29.57	35.01	19.62	22.83	39.68	33.23	28.94	28.76	32.64
January.....	1.50	2.84	3.49	2.47	1.66	2.43	.65	1.32	4.23	2.08	.67	2.66	2.17
February.....	.08	2.64	.42	2.28	1.57	1.55	1.16	.77	.38	4.93	2.28	1.11	1.60
March.....	.86	3.17	2.39	1.82	2.29	1.99	4.04	.05	3.54	1.72	.67	1.30	1.99
April.....	5.66	2.87	1.82	5.02	8.75	3.39	2.93	4.28	2.75	3.72	3.18	2.51	3.91
May.....	2.26	4.00	11.01	2.52	4.00	.88	1.70	4.56	4.65	.69	4.03	8.75	4.09
June.....	4.52	3.23	6.76	2.27	3.04	5.57	.92	.66	3.16	2.91	5.74	.69	3.29
July.....	.71	4.10	5.24	2.57	.26	.50	.57	.56	5.40	4.12	1.96	1.39	2.28
August.....	.33	4.09	5.74	1.16	.78	1.79	2.12	4.32	3.30	.69	2.30	.23	2.24
September.....	3.62	3.54	3.12	.74	.57	1.61	3.23	1.54	1.71	2.60	.13	2.46	2.07
October.....	5.14	10.99	6.13	.10	1.89	7.38	.00	3.23	6.08	4.27	2.35	3.26	4.24
November.....	6.07	3.31	1.76	.23	4.57	2.40	.21	1.53	.59	.03	1.82	1.45	2.00
December.....	4.43	.97	2.05	1.71	.19	5.52	2.09	.01	3.89	5.47	3.81	2.95	2.76

*11-year average—cotton destroyed by hail in 1925.

Picking of the varieties was started when the first open bolls appeared and weekly pickings were made until the last bolls had opened, all varieties being picked on the same date each time. The yields of lint and seed were obtained by ginning the seed cotton on a 20-saw, 10-inch cotton gin. A sample of lint from each variety was obtained at ginning time to determine the grade and length of staple. The classing was done by official and licensed classers of the Department of Textile Engineering, A. and M. College of Texas.

CLASSIFICATION OF VARIETIES

The term "variety" is used to refer to each separate cotton tested and does not imply that each cotton reported on in this Bulletin is a separate and distinct type possessing measurable differences. Many of the so-called varieties are really strains of a parent variety which have been selected and developed by individual breeders.

Planting seed for the variety tests are secured direct from leading breeders each year, and each lot of seed is given a separate Texas Station number (T. S. No.). On the sheet bearing this number is recorded the name of the breeder, varietal name given by the breeder, and the available history of the seed.

Classification of some cotton varieties

Type	Parent variety	Current trade name
Mebane or Triumph	Mebane	Mebane Cliett's Superior Harper Blue Wagon
	Kasch	Kasch Qualla
	New Boykin	New Boykin
	Ferguson Triumph 406	Ferguson Triumph 406
Rowden	Rowden	Rowden Sunshine Belton
Truitt	Truitt	Truitt
Lone Star	Lone Star	Lone Star Lankart Bennett
Acala	Acala	Acala
Half and Half	Half and Half	Half and Half Western Wonder Summerour

EXPERIMENTAL RESULTS BY YEARS

The results secured in the variety test are discussed by individual years. The varieties tested each year are given in sepa-

rate tables and are listed in order of yield of lint, the highest-yielding varieties appearing at the top of the table. The tables also give the yields of seed cotton, percentage of lint, and, when available, the size of bolls, length of lint, and earliness.

Results in 1913

Forty-four varieties were included in the test of 1913, the results of which are shown in Table 2. Owing to a drouth which damaged cotton, especially during August, the yields in 1913 are low. Webber, with a yield of 103 pounds of lint per acre, was the only variety that produced as much as 100 pounds of lint per acre. Union Big Boll, Half and Half, Edgeworth, and Rowden, in the order named, were the next highest-yielding varieties.

Table 2.—Varieties tested in 1913, arranged in order of yield of lint.

T. S.* No.	Variety	Acre yield, pounds		Per cent lint
		Lint	Seed cotton	
466	Webber	103	318	32.4
135	Union Big Boll	98	285	34.2
443	Half and Half	96	228	42.2
129	Edgeworth	89	255	34.8
77	Rowden	84	249	33.6
487	Dongola	82	216	37.9
483	Columbia	81	273	29.7
79	Jackson	80	216	37.2
7	Burns	80	246	32.3
28	Mebane	79	228	34.8
15	Rowden	79	234	33.8
118	Long Staple	79	249	31.6
474	Truitt	79	237	33.2
14	Unknown	77	234	33.0
414	Durango	76	240	31.6
472	Peterkin	72	195	37.1
486	Roberts	72	201	35.8
480	Culpepper	71	201	35.2
452	Mortgage Lifter	70	216	32.5
485	Cleveland	69	204	34.0
16	Crowder	67	207	35.0
446	Simpkins	66	198	32.6
121	Allen	65	195	33.3
413	Snowflake	65	189	34.4
3	Columbia	64	201	31.7
479	Toole	64	180	35.3
470	Sunflower	63	222	28.2
481	Keenan	61	201	30.4
415	Huffman	61	177	34.5
412	Foster	59	216	27.9
444	Haaga's Extra Long Staple	59	153	38.3
130	Bank Account	59	177	33.2
419	Hawkins	57	159	35.7
169	Webber	56	171	32.6
11	Lone Star	54	159	34.0
481	Cook	54	153	35.1
78	Hendricks	48	144	33.6
445	Webber	46	156	29.4
475	Texas Wood	45	105	37.5
74	Allen	42	117	34.5
496	Broadwell's D. J	39	126	30.6
10	Mit Affifi	31	114	27.3
477	Webber	29	84	34.0
340	Black Rattler	19	75	25.8

*Texas Station Number.

Results in 1916

The varieties tested in 1916 showed a wide range in yield. Sunbeam made the highest yield, 246 pounds of lint per acre, but the yields ranged down to 49 pounds for Sea Island, as shown in Table 3.

Table 3.—Varieties tested in 1916, arranged in order of yield of lint.

T. S. No.	Variety	Acre yield, pounds		Per cent lint
		Lint	Seed cotton	
1849	Sunbeam	246	542	45.4
924	Cook	242	604	40.0
804	Mebane Triumph	210	573	36.7
1822	A—711	209	575	36.8
1817	Ferguson's Round Nose	192	569	33.8
1819	Mebane Triumph	184	521	35.4
1833	Lone Star	180	508	35.4
1820	Lone Star	177	540	32.8
1821	Rowden Ladd	175	534	32.8
1816	Rowden	168	476	35.4
1827	Lone Star	166	526	31.6
1848	Matchless E. E. Big Boll	164	491	33.4
1830	Wannamaker	161	481	33.4
1852	Bank Account	159	520	30.6
1818	Rowden	158	459	34.4
1826	Cleveland Big Boll	157	493	31.8
1847	Mortgage Lifter	155	466	33.2
1828	Rowden's Big Boll	152	466	32.6
1823	Early King	152	480	31.8
1825	Hawkins E. E. Prolific	151	533	28.4
1861	Ideal	150	493	30.4
1851	Union Big Boll	149	489	30.6
1834	Simpkin's Prolific	145	483	30.0
1800	Wooten's Columbia B. B	133	451	29.4
1889	Storm-proof	129	388	33.2
1850	Hasting's Upright	126	405	31.2
1815	Allen's Express	124	485	25.6
1835	Webber No. 82	124	438	28.2
1846	Sure Crop	117	384	30.4
1829	Long Staple	111	457	24.4
1836	Hartsville No. 9	103	358	28.8
1838	Webber No. 49	101	365	27.8
1853	Yuma	91	311	29.4
1837	Keenan-Goodson	70	265	26.6
1824	Sea Island	49	204	24.0

Results in 1917

The growing season in 1917 was favorable for cotton production and all except 11 of the 52 varieties made more than a half bale of cotton per acre (Table 4). Wannamaker-Cleveland ranked highest, with a yield of 390 pounds of lint per acre. Mebane Triumph was second with a yield of 362 pounds.

Table 4.—Varieties tested in 1917, arranged in order of yield of lint.

T. S. No.	Variety	Acre yield, pounds		Per cent lint	Length of lint, inches
		Lint	Seed cotton		
2474	Wannamaker Cleveland	390	894	43.6	7/8
2470	Mebane Triumph	362	1029	35.2	7/8
2473	Holdon	349	955	36.6	1 1/16
2482	Matchless E. E. Big Boll	347	958	36.3	7/8
2498	Moneymaker	345	969	35.6	7/8
2477	Cook No. 919	344	860	40.0	3/4
2492	Jackson's Big Boll	338	986	34.4	7/8
2483	Union Big Boll	336	1003	33.5	1
2504	Half and Half	328	923	35.6	7/8
2459	Mebane	325	914	35.6	1
804	Mebane	320	898	35.7	7/8
2479	Mortgage Lifter	320	993	32.2	7/8
2464	F. G. No. 33	319	850	37.5	7/8
2471	Boykin	318	833	38.2	.....
2491	Mebane Triumph	312	893	34.9	7/8
2461	Acala	307	867	34.6	1 1/16
2486	Cleveland's Big Boll	305	886	34.4	7/8
2465	Kasch's Improved	304	791	38.4	1
2494	Lone Star	302	965	31.3	1 1/16
2469	Ferguson's Round Nose	301	912	33.0	7/8
2499	Broadwell's D. J	301	896	33.6	3/4
2488	Early King	301	900	33.4	7/8
2500	Mexican Big Boll	296	834	35.5	7/8
2457	Webb	296	836	35.3	1
2493	King's Extra Early	295	889	33.2	7/8
2462	Improved Champion	294	807	36.5	7/8
2497	Toole	294	831	35.4	1
2456	Chisholm	293	846	34.5	1
2481	Bank Account	290	872	33.3	7/8
2468	Texas Progress	289	876	33.0	3/4
2505	Peterkin	289	819	35.3	.....
2478	Surecrop	286	800	35.8	3/4
2487	Simpkin's Prolific	285	879	32.4	7/8
2472	Lone Star	284	834	34.0	1 1/16
2496	Hite's Prolific	276	808	34.1	7/8
2466	Cook's Silk L. S	275	851	32.3	1
2485	Hawkins	273	848	32.2	1
2501	Durango	270	872	30.9	1 1/16
2463	Vandiver's Heavy Fruiter	269	804	33.5	7/8
2489	Simpkin's Ideal	255	766	33.3	7/8
2495	Wannamaker	252	698	36.1	3/4
804	Mebane	239	687	34.7	7/8
2490	Rowden's Choice Prolific	235	692	34.0	1
2458	Rowden	230	697	33.0	1
2484	Allen's Express	229	913	25.1	1 1/16
2480	Hasting's Upright	229	672	34.1	7/8
2460	Harvell	221	657	33.7	1
2502	Express	214	803	26.7	1 1/8
2503	Trice	208	824	25.3	1 1/8
2475	Cleveland's No. 641	208	604	34.5	3/4
2476	King's X Triumph	190	610	31.2	.....
2467	Snowflake	188	685	27.5	1 1/4

Results in 1918

The results of 42 varieties for the year 1918 are given in Table 5. The hot dry weather of July and August reduced yields far below the average and produced inferior quality of staple, the yields ranging from 151 pounds per acre for F. G. No. 33 to 50 pounds for Snowflake. The staple was unusually short and weak, the length being considerably under the average for the respective varieties grown.

Table 5.—Varieties tested in 1918, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, pounds		Per cent lint	Length of lint, inches
		Lint	Seed cotton		
3000	F. G. No. 33	151	409	36.9	5/8
3035	Mebane Triumph	132	359	36.8	3/4
3047	Simpkin's Prolific	118	370	31.9	1/2
2995	Union Big Boll	117	377	31.0	1/2
3066	Half and Half	112	334	33.5	5/8
2994	Texas Progress	110	333	33.0	3/4
3048	Kasch	109	284	38.4	7/8
804	Mebane	108	303	35.6	7/8
3078	Broadwell's Double Jointed	106	336	31.5	3/4
3077	Money Maker	106	321	33.0	3/4
3004	Webb	105	299	35.1	3/4
3038	Boykin	105	275	38.2	1
3064	Toole	103	322	32.0	3/4
3030	Cook's No. 931	101	262	38.5	1/2
3046	Early King	101	318	31.8	5/8
3079	Hite's Prolific	100	298	33.5	3/4
3062	Express	99	374	26.5	1 1/16
3065	Mexican Big Boll	99	315	31.4	1/2
3036	Lone Star	98	270	36.3	1
3044	Cleveland's Big Boll	97	316	30.6	7/8
3003	Rowden	96	303	31.7	7/8
3034	Ferguson Round Nose	92	275	33.5	15/16
2997	Matchless Extra Early Big Boll	91	259	35.1	5/8
3001	Chisholm	90	271	33.2	15/16
3025	Acala	89	271	32.8	7/8
3020	Sure Crop	88	282	31.2	1/2
3026	Cook's Silk Long Staple	88	279	31.5	5/8
3063	Trice	85	324	26.2	1
3061	Durango	84	318	26.4	1 1/8
3022	Bank Account	81	263	30.8	1/2
2989	King No. 580	77	252	30.6	3/4
2484	Allen's Express	76	286	26.6	7/8
3029	King X Triumph	76	223	34.1	5/8
2473	Holdon	75	218	34.4	7/8
2998	Vandiver's Heavy Fruiter	72	223	32.3	3/4
3023	Wannamaker	70	207	33.8	1/2
3028	Cook's No. 588	70	199	35.2	5/8
3056	Improved Champion	70	198	35.4	5/8
3021	Mortgage Lifter	66	204	32.4	7/8
3033	Simpkins Ideal	63	207	30.4	5/8
2996	Hastings Prolific	54	182	29.7	5/8
2990	Snowflake	50	172	29.1	7/8

Results in 1919

The test included 45 varieties in 1919 (Table 6). The excessive rains and moisture conditions, however, resulted in fair yields of lint with a good staple. Boll weevils and bollworms were exceedingly numerous and caused a vast amount of damage to the crop. However, seven varieties produced more than one-half bale per acre. Yields ranged from 145 pounds of lint per acre for Snowflake up to 305 pounds for Mebane Triumph.

Table 6.—Varieties tested in 1919, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Weight of 100 bolls, in grams
		Lint	Seed cotton			
3634	Mebane Triumph	305	793	38.5	7/8	765
3674	Union Big Boll	297	867	34.3	3/4	553
3643	Lone Star	283	781	36.2	1	666
3636	Mebane Triumph No. 406	265	709	37.4	1	751
3676	Mebane Triumph	258	683	37.8	1	723
3635	Mebane	258	685	37.7	1	638
3647	Jackson	254	744	34.1	1	666
3642	Lone Star	244	708	34.5	1 1/16	610
804	Mebane	234	632	37.0	1	695
3663	F. G. No. 33	231	611	37.8	1	581
3633	Mebane	230	625	36.8	1 1/16	808
3660	Truitt	229	627	36.5	1	666
3654	Willis	227	592	38.3	1	702
3668	Foster	224	696	32.2	1 1/8	653
3659	Acala No. 5	221	579	38.2	1 1/16	695
3677	Mebane Triumph	220	563	39.1	7/8	751
2472	Lone Star	219	594	36.9	1 1/16	794
3653	Belton	219	620	35.3	1 1/16	765
3646	Lone Star	217	637	34.1	1 1/16	638
3645	Lone Star	216	591	36.5	1	751
3639	Webb	211	627	33.7	7/8	588
3658	Acala	211	607	34.8	1 1/8	695
3655	Ferguson's Round Nose	207	576	35.9	1 1/16	737
3673	Cleveland	204	563	36.2	1	599
3675	Half and Half	200	531	37.7	1	454
3669	Kekchi	199	589	33.8	1 1/8	652
3637	Kasch	199	479	41.5	1	822
3661	Chisholm	197	589	33.4	1	645
3644	Lone Star	197	522	37.7	1 1/16	610
3150	Lone Star	196	543	36.1	1	780
3657	Acala	195	551	35.4	1 1/16	617
3664	Gilstrap	195	547	35.6	1	808
3640	Bennett	191	505	37.8	1 1/16	936
3666	Durango	191	571	33.5	1 1/8	581
793	Belton	190	559	34.0	1 1/16	780
3656	Acala	190	543	35.0	1 1/16	659
3632	Mebane	186	492	37.8	1	900
3667	Express	185	576	32.1	1 1/8	532
3638	Boykin (New)	180	468	38.4	7/8	737
3650	Rowden	175	520	33.6	1 1/16	836
3649	Holdon	171	475	36.0	1	744
3651	Rowden	166	476	34.8	1 1/16	808
3662	Harvell	158	448	35.3	1	780
3665	Buckelew Big Boll	151	418	36.1	1 1/16	836
3670	Snowflake	145	491	29.5	1 3/8	560

Results in 1920

The results of 11 varieties tested in 1920 are shown in Table 7. Continued rains in the spring delayed planting until late in May, and throughout the summer and fall continued rains prevented proper cultivation and harvesting. During the month of August boll weevils were numerous and practically destroyed the cotton crop. The season was the wettest on record at Denton and was considered by the older inhabitants as the most unfavorable year for cotton in the history of the county, resulting in a crop failure.

Table 7.—Varieties tested in 1920, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, pounds		Per cent lint	Length of lint, inches
		Lint	Seed cotton		
4131	Acala	15.9	42.3	37.6	1 1/8
4120	Mebane	9.7	24.7	39.2	7/8
804	Mebane	7.6	20.6	36.9	.....
3150	Lone Star	6.1	17.6	34.6	1 1/16
4114	Durango	5.9	18.3	32.2	1 3/16
4119	Lone Star	4.4	12.6	34.9	1 1/16
793	Belton	4.3	12.9	33.3	1 1/16
4117	Kasch	3.6	9.3	38.7	3/4
4118	Snowflake	3.0	10.7	28.0	1 1/4
4115	Bennett	2.5	6.6	37.8	1 1/8
4116	Rowden	2.0	6.0	33.3	1 1/16

Results in 1921

Table 8 gives the results of the variety test in 1921. Yields were reduced by cloudy, showery weather conditions, which were favorable to boll weevils during July, and by hot dry weather in August and September. Bennett's Lone Star made the highest yield, 270 pounds of lint per acre, and was followed by Lone Star with 239 pounds, and Truitt with 231 pounds. Bennett's Lone Star, Mebane, and Lone Star had the largest bolls and Durango and Snowflake the smallest. All varieties except Kasch and Truitt produced a staple which measured one inch or more in length.

Table 8.—Varieties tested in 1921, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Weight of 100 bolls, in grams
		Lint	Seed cotton			
5994	Bennett	270	696	38.7	1 1/16	733
5995	Lone Star	239	628	38.0	1 1/16	720
5990	Truitt	231	630	36.7	15/16	604
5986	Lone Star	225	646	34.8	1 1/8	650
5984	Belton	224	635	35.3	1 1/8	665
5988	Acala	217	638	34.0	1 1/16	580
5989	Mebane	196	509	38.5	1	725
5992	Kasch	187	474	39.4	7/8	708
5987	Durango	172	554	31.0	1 3/16	455
5993	Rowden	163	471	34.6	1 1/8	662
5991	Snowflake	122	424	28.7	1 3/8	500

Results in 1922

The results of 13 varieties for the year 1922 are presented in Table 9. The yields of lint ranged from 217 pounds of lint per acre for Mueck-Harper down to 92 pounds for Snowflake. As may be seen in Table 1, the summer rainfall was very low, being only .26 inch for July, .78 inch for August, and .57 inch for September. All varieties produced staple shorter than normal.

Durango, Lightning Express, and Snowflake were the only varieties that produced staple of one inch or longer.

Table 9.—Varieties tested in 1922, arranged in order of yield of lint.

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings	Weight of 100 bolls, grams
		Lint	Seed cotton				
6568	Mueck-Harper	217	584	37.2	5/8	5.68	454
804	Mebane	193	563	34.3	7/8	6.25	425
6573	Kasch	185	468	39.5	5/8	2.90	510
6563	Mebane	182	480	37.9	7/8	4.89	567
6566	Truitt	172	495	34.7	3/4	13.65	510
6574	Rowden	159	463	34.3	7/8	4.99	538
6571	Acala	157	475	33.0	7/8	23.34	340
6565	Lone Star	156	421	37.1	7/8	13.38	482
6572	Bennett	153	399	38.3	3/4	2.18	510
5984	Belton	133	394	33.7	3/4	12.91	454
6567	Lightning Express	121	438	27.6	1	41.25	312
6564	Durango	96	324	29.6	1	25.22	284
6575	Snowflake	92	339	27.1	1 1/16	1.65	482

Results in 1923

In 1923 the yields of the varieties were approximately equal to the average for the eleven-year period, 1918 to 1929, inclusive (Table 10). Continued dry weather during July, August, and September checked a 10 per cent infestation of boll weevil noted after a 5-inch rain on June 10. Cliett's Superior, Mebane, Bennett's Lone Star, Rowden, New Boykin, and Truitt each made more than one-half bale per acre. Cliett's Superior ranked first with a yield of 282 pounds of lint per acre. Durango and Snowflake, long-staple varieties, produced the lowest yields.

Table 10.—Varieties tested in 1923, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Earliness as indicated by percentage of total crop in first two pickings	Weight of 100 bolls, grams
		Lint	Seed cotton			
6807	Cliett's Superior	282	687	41.0	37.39	677
6780	Mebane	265	666	39.8	27.74	668
6784	Bennett	264	698	37.8	29.07	861
6797	Rowden	264	630	41.9	24.71	620
6786	New Boykin	259	702	36.9	45.17	507
6803	Truitt	250	708	35.3	32.55	609
6783	Lone Star	238	628	37.9	30.12	623
6810	Kasch	233	654	35.6	32.42	633
6782	Belton	226	640	35.3	26.52	530
6796	Lightning Express	196	664	29.5	65.43	334
6802	Hallmark	161	577	27.9	28.02	409
6564	Durango	154	452	34.0	29.08	500
6787	Snowflake	134	416	32.2	18.78	376

Results in 1924

The results obtained with the 13 varieties in the test in 1924 are given in Table 11. The season was favorable for the growth of cotton, and nine of the thirteen varieties produced a half bale or more per acre. Half and Half led with a yield of 307 pounds of lint per acre, but it produced one-half inch staple, while Star and Lone Star, which were only slightly lower in yield, produced a staple measuring 1 1/16 and one inch, respectively. None of the varieties produced less than 200 pounds of lint per acre. Only five varieties produced staple under one inch.

Table 11.—Varieties tested in 1924, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings
		Lint	Seed cotton			
7468	Half and Half	307	734	41.8	1/2	30.96
7384	Star	295	739	39.9	1 1/16	38.55
7386	Lone Star	293	771	38.0	1	37.54
7385	Kasch	284	706	40.2	15/16	28.87
7408	Mebane	276	738	37.4	5/8	28.90
7388	New Boykin	262	699	37.5	1	41.61
7459	Cliett's Superior	259	648	40.0	7/8	33.33
7387	Sunshine	256	721	35.5	1 1/16	35.57
7383	Startex	250	753	33.2	1	50.67
7409	Truitt	245	677	36.2	1	47.46
6314	Burnett	221	695	31.8	5/8	44.54
7391	Rowden	216	600	36.0	1	29.34
7411	Belton	201	551	36.5	1	28.84

Results in 1925

No results are available for 1925, since the cotton in the variety test in 1925 was totally destroyed by hail on August 13.

Results in 1926

Sixteen varieties were included in the tests in 1926, the results of which are given in Table 12. Weather conditions were favorable for the production of cotton and resulted in the highest yields during the 11 years of the experiment. Yields ranged from 645 pounds of lint per acre for Half and Half down to 170 for Snowflake. Half and Half produced a half bale more per acre than the next highest variety. It was the only one of the 16 varieties that produced lint less than one inch, measuring only $\frac{5}{8}$ inch. This is the only year in which Half and Half has been so outstandingly ahead of other varieties in yield of lint, although it led in yield in 1918 and 1924. The five highest-yielding varieties, in order, were Half and Half, Sunshine, Truitt, Harper, and Cliett's Superior.

Table 12.—Varieties tested in 1926, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings
		Lint	Seed cotton			
8604	Half and Half	645	1514	42.6	5/8	7.82
8596	Sunshine	377	1011	37.3	1 1/32	10.16
8610	Truitt	351	1006	34.9	1	5.68
8607	Harper	348	892	39.0	1	12.80
8584	Cliett's Superior	339	924	36.7	1	3.29
8585	Kasch	318	866	36.7	1	2.73
8600	Qualla	310	836	37.1	1 1/16	10.22
8593	Lankart	307	834	36.8	1 1/8	7.56
8599	New Boykin	279	811	34.4	1 1/16	7.80
8609	Acala (Rogers)	275	804	34.2	1 3/32	7.35
8606	Acala (Watson)	268	751	35.7	1 1/8	7.11
8588	Mebane	268	768	34.9	1 1/16	6.06
8590	Lone Star	250	733	34.1	1 3/16	12.13
5984–91	Belton	243	715	34.0	1	13.18
8613	Rowden	231	649	35.6	1	6.23
8595	Snowflake	170	586	29.0	1 1/2	6.76

Results in 1927

Most of the varieties tested in 1927 produced yields smaller than the average during the four years, 1926 to 1929, inclusive. Heavy rainfall during June and July aided the increase of boll weevils and at the beginning of August all cotton was heavily infested with weevils. However, very light rainfall in August and several days of very hot, dry weather checked the damage by boll weevils and aided in the fruiting and maturing of cotton.

Table 13.—Varieties tested in 1927, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings
		Lint	Seed cotton			
9608	New Boykin	363	1055	34.4	1	34.10
9612	Sunshine	361	968	37.3	1 1/16	31.65
9594	Half and Half	330	775	42.6	3/4	19.02
9617	Rowden	270	758	35.6	1	23.44
9615	Truitt	249	713	34.9	1	28.73
9607	Cliett's Superior	238	649	36.7	1 1/32	30.89
9618	Lone Star	233	683	34.1	1	33.33
9614	Kasch	226	616	36.7	1 1/16	31.13
9604	Harper	217	556	39.0	1	24.19
9586	Lone Star (Bennett)	205	601	34.1	1	28.44
9625	Red Leaf	203	549	37.0	15/16	10.20
9601	Qualla	200	539	37.1	1	26.19
9616	Acala	195	570	34.2	1 3/16	20.23
9602	Anton	190	501	37.9	1	22.07
9605	Lankart	172	467	36.8	1	25.21
9611	Mebane	168	481	34.9	1	23.31

Yields ranged from 168 pounds of lint per acre for Mebane to 363 pounds for New Boykin. New Boykin, Sunshine, and Half and Half each yielded more than 300 pounds of lint per acre. Red Leaf and Half and Half were the only two varieties having lint less than one inch long.

Results in 1928

Twenty-one varieties were included in the variety test for 1928 and the average yields were among the highest obtained during the eleven-year period, Startex being the only variety producing less than 300 pounds of lint per acre (Table 14). New Boykin, Half and Half, Wacona, and Ferguson 406 each produced more than 400 pounds of lint per acre, New Boykin leading with 425 pounds. The staple was shorter than usual, 17 of the 21 varieties producing less than an inch staple. Half and Half had the shortest lint, $\frac{3}{4}$ inch.

Table 14.—Varieties tested in 1928, arranged in order of yield of lint.

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings	Weight of 100 bolls, grams
		Lint	Seed cotton				
10089	New Boykin	425	1212	35.1	15/16	56.76	610
10097	Half and Half	422	986	42.8	3/4	45.69	525
10072	Wacona	407	1117	36.4	1	37.39	630
10088	Ferguson No. 406	403	1141	35.3	7/8	58.72	500
10077	Truitt	391	1122	34.8	7/8	53.32	565
10070	Lone Star (Bennett)	376	980	38.4	15/16	31.05	625
10093	Lone Star	375	948	39.6	7/8	32.72	650
12574	Lightning (Koiner)	369	952	38.8	15/16	44.59	720
10087	Harper	367	937	39.2	15/16	36.22	635
10104	Sunshine	363	1093	33.2	15/16	48.29	610
10076	Kasch	355	889	39.9	7/8	45.39	700
10102	Qualla	353	900	39.2	15/16	33.11	685
5984	Belton No. 91	351	978	35.9	1 1/32	32.17	690
10103	Cliett's Superior	351	884	39.7	15/16	44.19	670
10470	Anton	347	937	37.0	15/16	45.58	675
10079	Acala	336	1004	33.5	1 1/16	40.22	600
12573	Delfos (Long, W. S.)	335	1054	31.8	1 1/8	53.60	480
10073	Lankart	331	831	39.8	15/16	21.87	710
10090	Mebane	326	816	39.9	15/16	28.46	670
10092	Rowden	311	881	35.3	15/16	31.19	600
7000	Startex No. 296	290	842	34.4	15/16	26.06	545

Results in 1929

Of the 29 varieties in the test in 1929, seven produced above 300 pounds of lint per acre, Kasch (Sims) leading with a yield of 337.6 pounds, followed in order by Harper, New Boykin, Kasch (Atwood), Cliett's Superior, Lone Star (O'Connor-Hasselfield), and Qualla (Table 15). Despite the unusually dry summer, 1929 was about an average year for cotton with respect to yield.

The length of the staple was below the average for the eleven years, 1918 to 1929, inclusive, only 6 of the 29 varieties having lint more than one inch long. The longer-staple varieties made the lowest yields, while 18 of the medium-staple varieties produced more than Half and Half, a short-staple variety.

Table 15.—Varieties tested in 1929, arranged in order of yield of lint

T. S. No.	Variety	Acre yield, Lbs.		Per cent lint	Length of lint, inches	Earliness as indicated by percentage of total crop in first two pickings
		Lint	Seed cotton			
13104	Kasch (Sims)	337.6	889.1	38.0	7/8	35.6
13097	Harper	322.5	802.9	40.2	7/8	49.9
13019	New Boykin	321.6	918.5	35.0	7/8	42.7
13092	Kasch (Atwood)	318.2	805.5	39.5	7/8	46.6
13094	Cliett's Superior	316.5	785.7	40.3	15/16	41.2
13089	Lone Star (O'Connor)	313.4	835.2	37.5	15/16	20.3
13023	Qualla	300.6	741.4	40.5	15/16	33.6
13017	Mebane	299.8	767.4	39.1	15/16	27.8
13037	Okla Triumph No. 44	299.2	895.0	33.4	7/8	43.4
13096	Lankart	294.5	735.5	40.0	15/16	19.6
13020	Ferguson No. 406	292.4	827.2	35.3	15/16	46.2
13016	Kasch (Ed.)	289.7	709.1	40.8	15/16	38.3
13033	D. P. L. No. 4-8	284.2	833.8	34.1	15/16	48.0
13090	Lone Star (Gorham)	283.9	779.1	36.4	7/8	27.1
13077	Lightning	279.4	753.8	37.1	7/8	28.9
13022	Anton	279.4	746.9	37.4	7/8	29.3
13021	Blue Wagon	271.2	699.9	38.7	7/8	38.1
13066	Rowden	270.6	790.5	34.2	15/16	19.4
13071	Half and Half	269.3	705.4	38.1	13/16	34.6
13068	Truitt	264.6	764.5	34.6	15/16	26.5
13093	Sunshine	262.8	838.5	31.3	15/16	22.7
13035	Lone Star (Bennett)	261.7	687.5	38.1	15/16	26.9
13098	Greer Wichita	260.0	713.9	36.4	1 1/16	36.0
13095	Wacona	246.3	716.1	34.4	1	28.7
13025	Delfos, 6102-911	236.5	785.7	30.1	1 1/32	52.7
13086	Wilson	216.5	675.0	32.1	13/16	44.4
13091	Acala	202.7	624.0	32.5	1 1/32	37.8
13027	Delfos, 631-910	200.4	671.3	29.8	1 1/32	39.3
13064	Wild's No. 2	193.6	622.2	31.1	1 1/16	17.8

SUMMARY OF YIELDS OF LINT

Since it is not possible to make a direct comparison between varieties that were not grown during the same years, percentage ratings and relative yields have been computed. Four varieties, Lone Star, Kasch, Mebane, and Rowden, appeared each of the eleven years and the average yield of these four varieties affords a satisfactory basis or standard by which the other varieties may be compared. The percentage rating of a variety is found by dividing its average yield for the years grown by the average yield of the four standard varieties for the same period of years. The relative yield of a variety is found by multiplying its percentage rating by 212, the average yield in pounds of lint of the four standard varieties for the eleven years. It is a coincidence

Table 16.—Summary of actual yields of lint per acre, relative yields, and percentage rating of varieties tested from 1918 to 1929, inclusive.

Variety	1918	1919	1920	1921	1922	1923	1924	1926	1927	1928	1929	Percentage rating	Relative yields, Lbs. lint per acre	No. years grown
Half and Half	112	200	.....	.....	.....	.....	307	645	330	422	269.3	133.7	283	7
Sunshine	.....	.....	.....	.....	.....	.....	256	377	361	363	262.8	117.0	248	5
New Boykin	.....	180	.....	.....	.....	259	262	279	363	425	321.6	112.6	239	7
Harper	.....	.....	.....	.....	.....	.....	.....	348	217	367	322.5	112.3	238	4
Cliett's Superior	.....	.....	.....	.....	.....	282	259	339	238	351	316.5	109.2	236	6
Truitt	.....	229	.....	231	172	250	245	351	249	391	264.6	107.3	227	9
Lone Star	98	283	6.1	239	156	238	293	250	233	375	283.9	105.2	223	11
Qualla	.....	.....	.....	.....	.....	.....	.....	310	200	353	300.6	104.1	221	4
Kasch	109	199	3.6	187	185	233	284	318	226	355	289.7	102.4	217	11
Lone Star (Bennett)	.....	191	2.5	270	153	264	.....	.....	205	376	261.7	101.9	216	8
Mebane	108	234	7.6	196	182	265	276	268	168	326	299.8	100.0	212	11
Lankart	.....	.....	.....	.....	.....	.....	.....	307	172	331	294.5	98.8	209	4
Anton	.....	.....	.....	.....	.....	.....	.....	.....	190	347	279.4	95.8	203	3
Rowden	96	166	2.0	163	159	264	216	231	270	311	270.6	92.0	195	11
Belton	.....	190	4.3	224	133	226	201	243	.....	351	.....	91.6	194	8
Acala	89	195	15.9	217	157	.....	.....	268	195	336	202.7	87.7	186	9

that the average yield of the four base varieties is identical with the average yield of Mebane, which also is 212 pounds per acre.

A summary of the yields of lint of the varieties that were grown three or more years during the eleven-year period, 1918 to 1929, inclusive, is given in Table 16.

The varieties are listed according to their relative yields of lint per acre. It will be noted that there are 10 varieties above 100 per cent, and five below. Half and Half led with a yield of 283 pounds of lint per acre, followed by Sunshine with 248, New Boykin with 239, Harper with 238, and Cliett's Superior with 236 pounds per acre.

While Half and Half made the largest relative yield, it is undesirable on account of its short staple, averaging less than $\frac{7}{8}$ inch in length, which is not tenderable on future contracts. If no difference in price, however, is paid on the local market for the better-staple varieties than is paid for Half and Half, then under the present system of marketing it would be more profitable to grow Half and Half on account of its high yield. If an adequate premium can be obtained for the better-staple varieties to offset their slightly lower yield then they should be grown in preference to the shorter-staple varieties.

PERCENTAGE OF LINT

The percentage of lint of individual varieties varied from year to year. For instance, the percentage of lint of Mebane ranged from 34.9 in 1926 to 39.9 in 1928 (Table 17). Similar variations occurred in some of the other varieties. Five varieties, Mebane, Lone Star, Rowden, Kasch, and Truitt, appeared each of the three dry years, 1921, 1922, and 1923, and each of the three wet years, 1926, 1927, and 1928. While the average yield of lint was higher for the wet years, the percentage of lint was higher during the dry years. The average percentage of lint for the five varieties during the three dry years was 37.4, and 36.1 for the three wet years. This variation in percentage of lint appears to be due largely to environmental causes. Half and Half had the highest percentage of lint during the four years, 1926 to 1929, inclusive, with an average of 41.5. During this four-year period, five other varieties, Harper, Qualla, Kasch, Lankart, and Cliett's Superior, averaged above 38 per cent, while the lowest four varieties had percentages between 34 and 35.

LENGTH OF LINT

During the four years, 1926 to 1929, inclusive, Half and Half was the only variety in the test that produced lint of untenderable length, averaging only $\frac{3}{4}$ inch for the period (Table 18). Acala had the longest lint, averaging 1 3/32 inches for the four

Table 17.—Percentage of lint of varieties

Variety	1918	1919	1920	1921	1922	1923	1924	1926	1927	1928	1929	11-year average	Rank	Three dry year average 1921–1923	Rank	Three wet year average 1926–27–28	Rank	Last four years 1926–1929	Rank
Mebane	35.6	37.0	36.9	38.5	37.9	39.8	37.4	34.9	34.9	39.9	39.1	37.4	2	38.7	1	36.6	7	37.2	7
Lone Star	36.3	36.2	34.6	38.0	37.1	37.9	38.0	34.1	34.1	39.6	36.4	36.6	3	37.7	4	35.9	9	36.1	8
Rowden	31.7	34.8	33.3	34.6	34.3	41.9	36.0	35.6	35.6	35.3	34.2	35.2	4	36.9	5	35.5	10	35.2	9
Kasch	38.4	41.5	38.7	39.4	39.5	35.6	40.2	36.7	36.7	39.9	40.8	38.9	1	38.2	3	37.8	5	38.5	4
Belton	.....	34.0	33.3	35.3	33.7	35.3	36.5	34.0	.....	35.9	.....	.....	.....	34.8	7	.....	.....	.....	.....
Lone Star (Bennett)	.....	37.8	37.8	38.7	38.3	37.8	.....	.....	34.1	38.4	38.1	.....	.....	38.3	2	.....	.....	.....	.....
Truitt	.....	36.5	.....	36.7	34.7	35.3	36.2	34.9	34.9	34.8	34.6	.....	.....	35.6	6	34.9	11	34.8	10
Acala	32.8	35.4	37.6	34.0	33.0	.....	.....	35.7	34.2	33.5	32.5	.....	.....	.....	.....	34.5	13	34.0	13
Half and Half	33.5	37.7	.....	.....	.....	.....	41.8	42.6	42.6	42.8	38.1	.....	.....	.....	.....	42.7	1	41.5	1
New Boykin	.....	38.4	.....	.....	.....	36.9	37.5	34.4	34.4	35.1	35.0	.....	.....	.....	.....	34.6	12	34.7	12
Cliett's Superior	.....	.....	.....	.....	.....	41.0	40.0	36.7	36.7	39.7	40.3	.....	.....	.....	.....	37.7	6	38.4	5
Sunshine	.....	.....	.....	.....	.....	.....	35.5	37.3	37.3	33.2	31.3	.....	.....	.....	.....	35.9	8	34.8	11
Lankart	.....	.....	.....	.....	.....	.....	.....	36.8	36.8	39.8	40.0	.....	.....	.....	.....	37.8	4	38.4	6
Qualla	.....	.....	.....	.....	.....	.....	.....	37.1	37.1	39.2	40.5	.....	.....	.....	.....	37.8	3	38.5	3
Harper	.....	.....	.....	.....	.....	.....	.....	39.0	39.0	39.2	40.2	.....	.....	.....	.....	39.1	2	39.4	2
Startex	.....	.....	.....	.....	.....	.....	33.2	.....	.....	34.4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Acton	.....	.....	.....	.....	.....	.....	.....	.....	37.9	37.0	37.4	.....	.....	.....	.....	.....	.....	.....	.....
Ferguson No. 406	.....	.....	.....	.....	.....	.....	.....	.....	.....	35.3	35.3	.....	.....	.....	.....	.....	.....	.....	.....
Wacona	.....	.....	.....	.....	.....	.....	.....	.....	.....	36.4	34.4	.....	.....	.....	.....	.....	.....	.....	.....
Delfos	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lightning	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.8	37.1	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star (O'Connor-Hasselfield)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.5	.....	.....	.....	.....	.....	.....	.....	.....
Kasch (Sims)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.0	.....	.....	.....	.....	.....	.....	.....	.....
Okla. Triumph No. 44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33.4	.....	.....	.....	.....	.....	.....	.....	.....
Delta Pine Land No. 4–8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.1	.....	.....	.....	.....	.....	.....	.....	.....
Blue Wagon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.7	.....	.....	.....	.....	.....	.....	.....	.....
Greer Wichita	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36.4	.....	.....	.....	.....	.....	.....	.....	.....
Wilson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.1	.....	.....	.....	.....	.....	.....	.....	.....
Wilds No. 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.1	.....	.....	.....	.....	.....	.....	.....	.....
Delfos 6102–911	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.1	.....	.....	.....	.....	.....	.....	.....	.....
Delfos 631–910	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.8	.....	.....	.....	.....	.....	.....	.....	.....
Kasch (Atwood)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39.5	.....	.....	.....	.....	.....	.....	.....	.....

Table 18.—Length of lint of varieties by years and period averages

Variety	1918	1919	1920	1921	1922	1924	1926	1927	1928	1929	Average length of lint, inches	4-year average 1926–1929
Mebane	7/8	1	7/8	1	7/8	5/8	1 1/16	1	15/16	15/16	15/16	1
Lone Star	1	1	1 1/16	1 1/16	7/8	1	1 3/16	1	7/8	7/8	1	1
Rowden	7/8	1 1/16	1 1/16	1 1/8	7/8	1	1	1	15/16	15/16	1	31/32
Kasch	7/8	1	3/4	7/8	5/8	15/16	1	1 1/16	7/8	15/16	29/32	31/32
Belton	.....	1 1/16	1 1/16	1 1/8	3/4	1	1	.....	1 1/32	.....	1	.....
Lone Star (Bennett)	.....	1 1/16	1 1/8	1 1/16	3/4	.....	.....	1	15/16	15/16	31/32	.....
Truitt	.....	1	.....	15/16	3/4	1	1	1	7/8	15/16	15/16	31/32
Acala	7/8	1 1/16	1 1/8	1 1/16	7/8	.....	1 1/8	1 3/16	1 1/16	1 1/32	1 1/32	1 3/32
Half and Half	5/8	1	.....	.....	.....	1/2	5/8	3/4	3/4	13/16	23/32	3/4
New Boykin	.....	7/8	.....	.....	.....	1	1 1/16	1	15/16	7/8	31/32	31/32
Cliett's Superior	.....	.....	.....	.....	.....	7/8	1	1 1/32	15/16	15/16	31/32	31/32
Sunshine	.....	.....	.....	.....	.....	1 1 16	1 1/32	1 1/16	15/16	15/16	1	1
Lankart	.....	.....	.....	.....	.....	.....	1 1/8	1	15/16	15/16	1	1
Qualla	.....	.....	.....	.....	.....	.....	1 1/16	1	15/16	15/16	1	1
Harper	.....	.....	.....	.....	.....	.....	1	1	15/16	7/8	31/32	31/32
Startex	.....	.....	.....	.....	.....	1	.....	.....	15/16	.....	31/32	.....
Anton	.....	.....	.....	.....	.....	.....	.....	1	15/16	7/8	15/16	.....
Ferguson 406	.....	.....	.....	.....	.....	.....	.....	.....	7/8	15/16	29/32	.....
Wacona	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	.....
Delfos	.....	.....	.....	.....	.....	.....	.....	.....	1 1/8	.....	.....	.....
Lightning	.....	.....	.....	.....	.....	.....	.....	.....	15/16	7/8	29/32	.....
Lone Star (O'Connor-Hasselfield)	.....	.....	.....	.....	.....	.....	.....	.....	.....	15/16	.....	.....
Kasch (Sims)	.....	.....	.....	.....	.....	.....	.....	.....	.....	7/8	.....	.....
Okla. Triumph No. 44	.....	.....	.....	.....	.....	.....	.....	.....	.....	7/8	.....	.....
Delta Pine Land No. 4-8	.....	.....	.....	.....	.....	.....	.....	.....	.....	15/16	.....	.....
Blue Wagon	.....	.....	.....	.....	.....	.....	.....	.....	.....	7/8	.....	.....
Greer Wichita	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 1/16	.....	.....
Wilson	.....	.....	.....	.....	.....	.....	.....	.....	.....	13/16	.....	.....
Wild's No. 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 1/16	.....	.....
Delfos 6102-911	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 1/32	.....	.....
Delfos 631-910	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 1/32	.....	.....
Kasch (Atwood)	.....	.....	.....	.....	.....	.....	.....	.....	.....	7/8	.....	.....

Table 19.—Early maturity as measured by the percentage of total crop in the first two pickings

Variety	1922	1923	1924	1926	1927	1928	1929	7-year average 1922-29	4-year average 1926-29	2-year average 1928-29
Mebane	6.25	27.74	28.90	6.06	23.31	28.46	27.8	21.2	21.4	28.1
Lone Star	13.38	30.12	37.54	12.13	33.33	32.72	27.1	26.6	26.3	29.9
Rowden	4.99	24.71	29.34	6.23	23.44	31.19	19.4	19.9	20.1	25.3
Kasch	2.90	32.42	28.87	2.73	31.13	45.39	38.3	26.0	29.4	41.8
Belton	12.91	26.52	28.84	13.18	.....	32.17	.....	.....	.....	.....
Lone Star (Bennett)	2.18	29.07	.....	.....	28.44	31.05	26.9	.....	.....	29.0
Truitt	13.65	32.55	47.46	5.68	28.73	53.32	26.5	.....	28.6	39.9
Acala	23.34	.....	.....	7.11	20.23	40.22	37.8	.....	26.3	39.0
Half and Half	.....	.....	30.96	7.82	19.02	45.69	34.6	.....	26.8	40.1
New Boykin	.....	45.17	41.61	7.80	34.10	56.76	42.7	.....	35.3	49.7
Cliett's Superior	.....	37.39	33.33	3.29	30.89	44.19	41.2	.....	29.9	42.7
Sunshine	.....	.....	35.57	10.16	31.65	48.29	22.7	.....	28.2	35.5
Lankart	.....	.....	.....	7.56	25.21	21.87	19.6	.....	18.6	20.7
Qualla	.....	.....	.....	10.22	26.19	33.11	33.6	.....	25.8	33.3
Harper	.....	.....	.....	12.80	24.19	36.22	49.9	.....	30.8	43.0
Startex	.....	.....	50.67	.....	.....	26.06	.....	.....	.....	.....
Anton	.....	.....	.....	.....	22.07	45.58	29.3	.....	.....	37.4
Ferguson No. 406	.....	.....	.....	.....	.....	58.72	46.2	.....	.....	52.5
Wacona	.....	.....	.....	.....	.....	37.39	28.7	.....	.....	33.0
Lightning	.....	.....	.....	.....	.....	44.59	28.9	.....	.....	36.7
Lone Star (O'Connor-Hasselfield)	.....	.....	.....	.....	.....	.....	20.3	.....	.....	.....
Kasch (Sims)	.....	.....	.....	.....	.....	.....	35.6	.....	.....	.....
Okla. Triumph No. 44	.....	.....	.....	.....	.....	.....	43.4	.....	.....	.....
Delta Pine Land No. 4-8	.....	.....	.....	.....	.....	.....	48.0	.....	.....	.....
Blue Wagon	.....	.....	.....	.....	.....	.....	38.1	.....	.....	.....
Greer Wichita	.....	.....	.....	.....	.....	.....	36.0	.....	.....	.....
Wilson	.....	.....	.....	.....	.....	.....	44.4	.....	.....	.....
Wild's No. 2	.....	.....	.....	.....	.....	.....	17.8	.....	.....	.....
Delfos 6102-911	.....	.....	.....	.....	.....	.....	52.7	.....	.....	.....
Delfos 631-910	.....	.....	.....	.....	.....	.....	39.3	.....	.....	.....
Kasch (Atwood)	.....	.....	.....	.....	.....	.....	46.6	.....	.....	.....
Delfos (W. S. Long)	.....	.....	.....	.....	.....	53.60	.....	.....	.....	.....

years. Mebane, Lone Star, Sunshine, Lankart, and Qualla produced one-inch staple, while the lint of the other varieties averaged 31/32 inch in length.

EARLINESS OF MATURITY

Earliness is expressed as the percentage of the total crop harvested in the first two pickings. A seven-year average, 1922 to 1929, was secured on four varieties; a four-year average, 1926 to 1929, on 13 varieties; and a two-year average, 1928 to 1929, inclusive, on 18 varieties (Table 19).

Lone Star was the earliest variety in the seven-year average, while New Boykin was the earliest in the four-year average, and Ferguson 406 in the two-year average. In the four-year average, 1926 to 1929, New Boykin, Harper, Cliett's Superior, Kasch, and Truitt were the earliest maturing varieties producing 35.3, 30.8, 29.9, 29.4, and 28.6 per cent, respectively, of their total crops in the first two pickings.

SIZE OF BOLL

Data on the size of boll were obtained in five of the eleven years of the test (Table 20). The size of boll is expressed as the weight in grams of 100 well-opened bolls. (One pound is equal to 453.6 grams.) The size of boll was determined on all of the varieties grown in 1928 and such of these varieties as were grown in 1919, 1921, 1922, and 1923. Lightning (a strain of Mebane) and Lankart produced the largest bolls in 1928. During these five years in which Lightning and Lankart were not included for the entire period, Bennett's Lone Star and Kasch produced the largest bolls, 100 well-opened bolls averaging 733 and 675 grams, respectively.

Table 20.—Size of bolls, arranged in order of average weight

Variety	Weight of 100 bolls, in grams					Average for five years	Average for years grown
	1919	1921	1922	1923	1928		
Lone Star (Bennett)	936	733	510	861	625	733	.....
Kasch	822	708	510	633	700	675	.....
Mebane	695	725	567	668	670	665	.....
Rowden	808	662	538	620	600	646	.....
Lone Star	666	720	482	623	650	628	.....
Belton	780	665	454	530	690	624	.....
Truitt	666	604	510	609	565	591	.....
Acala	659	580	340	.....	600	.....	545 4 years
New Boykin	737	.....	.....	507	610	.....	618 3 years
Cliett's Superior	.....	.....	.....	677	670	.....	674 2 years
Harper	.....	.....	454	.....	635	.....	545 2 years
Half and Half	454	.....	.....	.....	525	.....	490 2 years
Lightning	.....	.....	.....	.....	720	.....	720 1 year
Lankart	.....	.....	.....	.....	710	.....	710 1 year
Qualla	.....	.....	.....	.....	685	.....	685 1 year
Anton	.....	.....	.....	.....	675	.....	675 1 year
Wacona	.....	.....	.....	.....	630	.....	630 1 year
Sunshine	.....	.....	.....	.....	610	.....	610 1 year
Startex	.....	.....	.....	.....	545	.....	545 1 year
Ferguson 406	.....	.....	.....	.....	500	.....	500 1 year

ACKNOWLEDGMENTS

Credit is due for valuable work in evaluating these data to Dr. E. B. Reynolds, Chief, Division of Agronomy, and to Mr. D. T. Killough, Agronomist in Cotton Breeding, and to Mr. T. W. Buell, Superintendent, who conducted these experiments from 1913 to 1915; to Mr. V. L. Cory, Superintendent in 1916; and to Mr. C. H. McDowell, Superintendent from 1917 to 1922.

SUMMARY

One hundred and seventy-nine varieties and strains of cotton were tested at Substation No. 6, Denton, Texas, during the seventeen-year period 1913-1929, inclusive.

Half and Half made the highest average yield, 283 pounds of lint per acre. Next in order of yield were Sunshine, New Boykin, and Harper, with yields of 248, 239, and 238 pounds per acre, respectively.

Half and Half produced $\frac{3}{4}$-inch lint, which is untenderable on future contracts. Sunshine, New Boykin, and Harper, the next three high-yielding medium-staple varieties, produced staple of tenderable length, 31/32 to 1 inch. The longer-staple varieties were not as productive as the medium-staple varieties.

Half and Half, Harper, and Kasch had the highest percentages of lint or gin turn-out, averaging 41.5, 39.4, and 38.5 per cent, respectively. A high percentage of lint, however, was not always associated with high yields of lint per acre. For example, Sunshine and New Boykin, two of the highest-yielding varieties, averaged only 35 per cent lint.

The size of boll was measured by the weight in grams of 100 well-opened bolls. Bennett's Lone Star ranked first with 733 grams to the 100 bolls (62 to the pound); Kasch second with 675 (67 to the pound); Mebane third with 665 (68 to the pound); and Rowden fourth with 646 grams (70 to the pound).

Earliness was measured by the percentage of the total crop harvested in the first two pickings. On this basis New Boykin, Harper, Cliett's Superior, Kasch, and Truitt were the earliest-maturing varieties, producing 35.3, 30.8, 29.9, 29.4, and 28.6 per cent, respectively, of their total crop in the first two pickings made at approximately weekly intervals.

The selection of a variety of cotton for North Texas will depend largely on the system of marketing and prices paid. If cotton is bought on the "hog-round" or average basis, and no more is paid for staple cotton than for short and untenderable cotton such as Half and Half, then Half and Half, on account of

its high yield, would be the most profitable variety to grow. If suitable differences in prices, however, can be obtained to compensate for the lower yield, then Sunshine, New Boykin, Harper, and Cliett's Superior, which produce lint of tenderable length, 31/32 to 1 inch, would be more profitable to grow than Half and Half.

Table 21.—Varieties of cotton tested at Denton from 1913 to 1929,* inclusive, with source of seed and yield in pounds of lint per acre.

Variety	Source of Seed	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1926	1927	1928	1929
Acala	Barrow Bros., Quinlan, Texas			307	89										
Acala	A. B. Fowler, Clarksville, Texas					211									
Acala	Watson Seed Farms, Waxahachie, Texas					195	15.9	217				268			
Acala	Henry Dunlavy, Allenfarm, Texas								157						
Acala	John D. Rogers, Navasota, Texas											275	195	336	202.7
Acala No. 5	C. N. Nunn, Porter, Okla					221									
Allen	Amzi Godden Seed Co., Birmingham, Ala	42													
Allen	Peter Henderson Co., New York, N. Y	65													
Allen Express	Chris Reuter, New Orleans, La		124	229	76										
Anton	F. Alves & J. W. Karback Co., Lubbock, Tex												190		
Anton	Andres Anton, New Braunfels, Texas													347	279.4
A-711	Ferguson Seed Farms, Sherman, Texas		209												
Bank Account	H. G. Hastings Seed Co., Atlanta, Ga	59	159	290	81										
Belton	H. Stubblefield, Belton, Texas					219									
Belton	Substation No. 5, Temple, Texas					190	4.3	224	133	226	201	243		351	
Bennett (Lone Star)	R. L. Bennett, Dallas, Texas					191	2.5	270	153	264			205	376	261.7
Black Rattler	S. H. Tracy, Biloxi, Miss	19													
Blue Wagon	Blanks Seed Farm, Lockhart, Texas														271.2
Bolivia	J. R. Wooten, Columbus, Texas	70													
Boykin	Ferguson Seed Farms, Sherman, Texas			318	105										
Broadwell's Double Jointed	W. P. Broadwell & Co., Alpharetta, Ga	39													
Broadwell's Double Jointed	N. L. Willet Seed Co., Augusta, Ga			301	106										
Buckelew Big Boll	Buckelew Bros., Oenaville, Texas					151									
Burnett	M. M. Wooley, Ralls, Texas										221				
Burns	E. E. Fant, Seneca, S. C	80													
Chisholm	Texas Seed Breeding Farms, Sherman, Tex			293	90										
Chisholm	Pittman & Harrison, Sherman, Texas					197									
Cleveland	N. L. Willet Seed Co., Augusta, Ga	69													
Cleveland	Chris Reuter, New Orleans, La					204									
Cleveland's Big Boll	Chris Reuter, New Orleans, La		157	305	97										
Cleveland's No. 641	Alabama Experiment Station, Auburn, Ala			208											
Cliett's Superior	O. W. Cliett, San Marcos, Texas									282	259	339	238	351	
Cliett's Superior	San Marcos Valley Seed Farm, San Marcos, Texas														316.5
Columbia	J. R. Wooten, Columbus, Texas	64													
Columbia	N. L. Willet Seed Co., Augusta, Ga	81													
Cook	N. L. Willet Seed Co., Augusta, Ga	54													
Cook	Ferguson Seed Farms, Sherman, Texas		242												
Cooks	Alabama Experiment Station, Auburn, Ala			344	101										
Cooks No. 588	Alabama Experiment Station, Auburn, Ala				70										
Cook's Silk Long Staple	Peter Henderson & Co., New York, N. Y			275	88										
Crowder	B. A. Crowder, Marquez, Texas	67													
Culpepper	Chris Reuter, New Orleans, La	71													
Delfos	W. S. Long, Denton, Texas													335	

Delfos 6102-911	Stoneville Pedigreed Seed Co., Stoneville, Miss															236.5
Delfos 631–910	Stoneville Pedigreed Seed Co., Stoneville, Miss															200.4 284.2
Delta Pine Land No. 4-8	Delta Pine Land Co., Scott, Miss															
Dongola	N. L. Willet Seed Co., Augusta, Ga	82		270	84											
Durango	N. L. Willet Seed Co., Augusta, Ga					191										
Durango	F. C. Tracy, Carlsbad, N. M						5.9	172	96	154						
Durango	Substation No. 8, Lubbock, Texas	76														
Durango	M. Falkner & Son, Waco, Texas		152	301	101											
Early King	Chris Reuter, New Orleans, La	89														
Edgeworth	J. C. Little, Lewisville, Ga			214	99	185									403	292.4
Express	N. L. Willet, Seed Co., Augusta, Ga		192	301	92	207										
Ferguson No. 406	Ferguson Seed Farms, Inc., Sherman, Texas															
Ferguson Round Nose	Ferguson Seed Farms, Inc., Sherman, Texas	59				224										
Foster	Wilmon Newell, College Station, Texas			319	151	231										
Foster	Morgan Lattimer, Clarksville, Texas					195										
F. G. No. 33	C. S. Lankart, Fannin, Texas															
Gilstrap	Olin Gilstrap, Omen, Texas															260.0
Greer Wichita	Greer Staple Cotton Breeding Farm, Iowa Park, Texas															
Haagas Extra Long Staple	Oscar Haaga, Memphis, Tenn	59								161						
Hallmark	A. S. McKain, Greenville, Texas															
Half and Half	Oscar Haaga, Memphis, Tenn	96														
Half and Half	N. L. Willet Seed Co., Augusta, Ga			328	112	200					307					
Half and Half	Fred Gee, Troup, Texas											645				
Half and Half	W. S. Hotchkiss, Troup, Texas												330	422		
Half and Half	J. W. Pace, Troup, Texas															269.3
Half and Half	B. F. Summerour Seed Co., Vernon, Texas											348				
Harper	Wharton Mercantile Co., Wharton, Texas												217	367		322.5
Harper	R. M. Harper, Martindale, Texas		103													
Hartsville	D. R. Coker, Hartsville, S. C			221												
Harvell	Chas. Eden, Bryan, Texas					158										
Harvell	Hardin Harvell, Belton, Texas				54											
Hastings Prolific	H. G. Hastings Seed Co., Atlanta, Ga		126	229												
Hastings Upright	H. G. Hastings Seed Co., Atlanta, Ga	57														
Hawkins	U. S. Dept. Agri., Washington, D. C			273												
Hawkins	Chris Reuter, New Orleans, La		151													
Hawkins Extra Early Prolific	Chris Reuter, New Orleans, La	48														
Hendricks	A. F. Hendricks, Blair, Okla			276	100											
Hites Prolific	N. L. Willet Seed Co., Augusta, Ga			349	75											
Holdon	W. M. Parks, Clarksville, Texas					171										
Holdon	H. Stubblefield, Belton, Texas	61														
Huffman	G. S. Huffman Longview, Texas		150													
Ideal	W. A. Simpkins, Raleigh, N. C			294	70											
Improved Champion	W. M. Bodeman, Lockhart, Texas	80														
Jackson	James Jackson, Pottsboro, Texas					254										
Jackson	Texas Seed and Floral Co., Dallas, Texas			338												
Jackson's Big Boll	Texas Seed and Floral Co., Dallas, Texas															

*Due to change of location of the station in 1914 and 1915 no yields are available for these years and in 1925 the variety plantings were destroyed by hail.

Table 21.—Varieties of cotton tested at Denton from 1913 to 1929, inclusive, with source of seed and yield in pounds of lint per acre.—Continued

Variety	Source of Seed	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1926	1927	1928	1929
Kasch	Ed Kasch, San Marcos, Texas	.....	.....	.....	109	199	3.6	187	185	233	284	.....	226	355	289.7
Kasch	Geo. W. Baker & Son, Lockhart, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	318	.....	.....	.....
Kasch	Ellis County Cottonseed Co., Waxahachie, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	337.6
Kasch	Atwood Pedigreed Seed Farm, Ennis, Texas.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	318.2
Kasch Improved	Ed Kasch, Lockhart, Texas	.....	.....	304	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keenan	N. L. Willet Seed Co., Augusta Ga	61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keenan-Goodson	D. R. Coker, Hartsville, S. C	.....	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kekchi	W. M. Parks, Clarksville, Texas	.....	.....	.....	.....	199	.....	.....	.....	.....	.....	.....	.....	.....	.....
King's Extra Early	Texas Seed and Floral Co., Dallas, Texas	.....	.....	295	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
King No. 580	Texas Seed and Floral Co, Dallas, Texas	.....	.....	.....	77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
King X Triumph	Alabama Exp. Station, Auburn, Ala	.....	.....	190	76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lankart	Lankart Bred Seed Farms, Waco, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	307	172	331	294.5
Lightning	H. P. Koiner, Krum, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	369	.....
Lightning	Lightning Cottonseed Co., Lockhart, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	279.4
Lightning Express	Pedigreed Seed Co., Hartsville, S. C	.....	.....	.....	.....	.....	.....	.....	121	196	.....	.....	.....	.....	.....
Lone Star	D. M. Crenshaw, Waco, Texas	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	Ferguson Seed Farms, Sherman, Texas	.....	177	284	98	197	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	Texas Seed and Floral Co., Dallas, Texas	.....	166	302	.....	216	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	John Gorham, Waco, Texas	.....	180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	283.9
Lone Star	J. A. Moore, Grand Prairie, Texas	.....	.....	.....	.....	283	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	Pittman & Harrison, Sherman, Texas	.....	.....	.....	.....	217	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	F. & B. Station, College Station, Texas	.....	.....	.....	.....	196	6.1	.....	.....	.....	.....	.....	.....	.....	.....
Lone Star	D. A. Saunders, Greenville, Texas	.....	.....	.....	.....	.....	4.4	239	156	238	293	250	.....	.....	.....
Lone Star	R. H. Niesch, Clarksville, Texas	.....	.....	.....	.....	.....	.....	225	.....	.....	.....	.....	.....	.....	.....
Lone Star	O'Connor-Hasselfield, Tivoli, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	233	375	313.4
Long Staple	Texas Seed and Floral Co., Dallas, Texas	79	111	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matchless E. E. Big Boll	H. G. Hastings Seed Co., Atlanta, Ga	.....	164	347	91	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mebane	Texas Seed and Floral Co., Dallas, Texas	79	.....	.....	.....	305	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mebane	Texas Seed Breeding Farms, Sherman, Texas	.....	.....	325	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mebane	H. A. Brewer, Dale, Texas	.....	.....	320	108	234	7.6	.....	193	.....	.....	.....	.....	.....	.....
Mebane	W. S. Hotchkiss, Troup, Texas	.....	.....	.....	.....	258	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mebane	A. D. Mebane, Lockhart, Texas	.....	.....	.....	.....	230	.....	196	182	265	276	268	168	326	299.8
Mebane	J. P. Horner, Lockhart, Texas	.....	.....	.....	.....	.....	9.7	.....	.....	.....	.....	.....	.....	.....	.....
New Boykin	Ferguson Seed Farms, Inc., Sherman, Texas	.....	.....	.....	.....	180	.....	.....	.....	259	262	279	363	425	321.6
Oklahoma Triumph No. 44	Oklahoma A. and M. College, Stillwater, Okla	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	299.2
Peterkin	N. L. Willet Seed Co., Augusta, Ga	72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peterkin	W. H. Mixson Seed Co., Charleston, S. C	.....	.....	289	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Qualla	H. Conrads, San Marcos, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	310	200	353	300.6
Red Leaf	F. M. Fagg, Lewisville, Texas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	203	.....	.....
Roberts	N. L. Willet Seed Co., Augusta, Ga	72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rowden	Rowden Bros., Wills Point, Texas	79	158	.....	.....	175	2.0	163	159	264	216	231	270	311	270.6
Rowden	R. H. Norwood, Wills Point, Texas	84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Rowden	Ferguson Seed Farms, Sherman, Texas		168													
Rowden	Texas Seed Breeding Farm, Sherman, Texas			230	96											
Rowden	R. M. Womack, Wills Point, Texas					166										
Rowden Big Boll	Texas Seed and Floral Co., Dallas, Texas		152													
Row Jen Choice Prolific	Texas Seed and Floral Co., Dallas, Texas			235												
Rowden Ladd	Ferguson Seed Farms, Sherman, Texas		175													
Sea Island	Chris Reuter, New Orleans, La		49													
Simpkins	North Carolina Test Farm, Raleigh, N. C	66														
Simpkins Ideal	Wake County Cottonseed Co., Raleigh, N. C			255	63											
Simpkins Prolific	Chris Reuter, New Orleans, La		145	285	118											
Snowflake	Nichols & Hooks, Clarksville, Texas	65														
Snowflake	John C. McLernon, Clarksville, Texas			188	50	145	3.0	122	92	134		170				
Star	C. S. Lankart, Waco, Texas										295					
Startex No. 296	F. & B. Station, College Station, Texas														290	
Startex	Main Station Farm, College Station, Texas										250					
Stormproof	John H. Hearn, Terrell, Texas		129													
Sunbeam	H. G. Hastings Seed Co., Atlanta, Ga		246													
Sunflower	N. L. Willet Seed Co., Augusta, Ga	63														
Sure Crop	H. G. Hastings Seed Co., Atlanta, Ga		117	286	88											
Sunshine	J. W. Davidson, McKinney, Texas										256	377	361	363	262.8	
Texas Progress	Progress Seed Improvement Co., Carlton, Texas			289	110											
Texas Wood	N. L. Willet Seed Co., Augusta, Ga	45														
Toole	N. L. Willet Seed Co., Augusta, Ga	64		294	103											
Trice	N. L. Willet Seed Co., Augusta, Ga			208	85											
Truitt	N. L. Willet Seed Co., Augusta, Ga	79														
Truitt	Truitt Seed Co., Ennis, Texas					229		231	172		245	351	249	391	264.6	
Truitt	Hugo Endler, Bristol, Texas									250						
Union Big Boll	H. G. Hastings Seed Co., Atlanta, Ga	98	149	336	117	297										
Unknown	W. B. Lawrence, Columbia, S. C	77														
Vandiver's Heavy Fruiter	Vandivers Seed Co., Lavonia, Ga			269	72											
Wacona	Lankart Bred Seed Farms, Waco, Texas														407	246.3
Wannamaker	Model Seed Farm, St. Matthews, S. C		161	252												
Wannamaker	T. W. Wood & Son, Richmond, Va				70											
Wannamaker Cleveland	T. W. Wood & Son, Richmond, Va			390												
Webb	Texas Seed Breeding Farm, Sherman, Texas			296	105											
Webb	Pittman & Harrison, Sherman, Texas					211										
Webber	D. R. Coker, Hartsville, S. C	103														
Webber	Oscar Haaga, Memphis, Tenn	46														
Webber	J. L. Coker, Memphis, Tenn	56														
Webber	N. L. Willett Seed Co., Augusta, Ga	29														
Webber, No. 82	D. R. Coker, Hartsville, S. C		124													
Webber No. 49	D. R. Coker, Hartsville, S. C		101													
Wild's No. 2	Coker's Pedigreed Seed Co., Hartsville, S. C															193.6
Wilson	Caldwell-Wilson Pure Seed Co., Abilene, Tex															216.5
Willis	R. E. Willis, Oenaville, Tex					227										
Wootens Columbia Big Boll	Reichardt & Schulte, Houston, Texas		133													
Yuma	Egyptian Cottonseed Co., Meza, Arizona		91													