TEXAS AGRICULTURAL EXPERIMENT STATION

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS
W. B. BIZZELL. President

BULLETIN NO. 276

FEBRUARY, 1921

DIVISION OF AGRONOMY

CORN VARIETY EXPERIMENTS SUBSTATION NO. 3,

AGRICOLTORAL & MECHANICAL
COLLEGE OF TEXAS LIBRARY



STATION STAFF†

ADMINISTRATION

B. Youngblood, M. S., Director
Chas. A. Felker, Ch of Clerk
A. S. Ware, Secretary
A. D. Jackson, Executive Assistant
Charles Sosolik, Technical Assistant
M. P. Holleman, Jr., Assistant Chief Clerk

VETERINARY SCIENCE

•M. FRANCIS, D. V. M., Chief H. Schmidt, D. V. S., Veterinarian D. H. Bennett, V. M. D., Veterinarian

CHEMISTRY

G. S. Fraps, Ph. D., Chief; State Chemist S. E. Asbury, M. S., Assistant Chemist S. LOMANITZ, B. S., Assistant Chemist J. B. Smith, B. S., Assistant Chemist Waldo Walker, Assistant Chemist

HORTICULTURE

H. NESS, M. S., Chief W. S. HOTCHKISS, Horticulturist

ANIMAL INDUSTRY

J. M. JONES, A. M., Chief; Sheep and Goat Investigations

M. SHERWOOD, B. S., Poultry Hus-R.

B. M. SHERWOOD, B. S., Floury Husbandbandman B. R. Warren, B. S., Animal Husbandman in Charge of Swine Investigations
Dairy Husbandman
R. A. Brewer, B. S., Assistant Animal Husbandman, Sheep and Goat Investigations

SUBSTATIONS

Ro. 1. Beeville, Bee County
I. E. Cowart, M. S., Superintendent

W. S. HOTCHKISS, Superintendent

No. 3. Angleton, Brazoria County V. E. HAFNER, B. S., Superintendent

A. H. PRINCE, B. S., Superintendent

D. T. KILLOUGH, B. S., Superintendent

C. H. McDowell, B. S., Superintendent

ENTOMOLOGY
M. C. TANQUARY, Ph. D., Chief; State Brite-

mologist
H. J. REINHARD, B. S., Entomologist
L. R. WATSON, A. M., Apiarist
C. S. Rude, B. S., Assistant Entomologisi

AGRONOMY

A. B. CONNER, B. S., Chief; Crops A. H. Leidigh, B. S., Agronomist, Soils E. B. Reynolds, M. S., Agronomist, Small

Grains
E. W. Geyer, B. S., Agronomist; Farm
Superintendent

**SALOME COMSTOCK, B. S., Seed Analyst PLANT PATHOLOGY AND PHYSIOLOGY J. J. TAUBENHAUS, Ph. D., Chief

FEED CONTROL SERVICE
F. D. FULLER, M. S., Chief
S. D. PEARGE, Executive Secretary

E. O. SIECKE, B. S., Chief; State Forester PLANT BREEDING, Chief

FARM AND RANCH ECONOMICS
A. B. Cox, Ph. D.. Chief
J. W. Elliott, B. S., Graduate Assistant

SOIL SURVEY

**W. T. CARTER, JR., B. S., Chief
T. M. BUSHNELL, B. S., Soil Surveyor
H. W. HAWKER, Soil Surveyor

No. 7. Spur, Dickens County R. E. Dickson, B. S., Superintendent

o. 8. Lubbock, Lubbock County R. E. KARPER, B. S., Superintendent

No. 9. Pecos, Reeves County V. L. Cory, B. S., Superintendent

College Station, Brazos County (Feeding and Breeding Substation, L. J. McCall, Superintendent

No. 11. Nacogdoches, Nacogdoches Countre G. T. McNess, Superintendent

**No. 12. Chillicothe, Hardeman County A. B. CRON, B. S., Superintendent

No. 14. Sonora, Sutton-Edwards Counties E. M. Perens, B. S., Superintendent

[†]As of February 15, 1921.
•In cooperation with the School of Veterinary Medicine, A. & M. College of Texas
•In cooperation with the United States Department of Agriculture

S 117 E2.2

CONTENTS

	Pa	age
Introduction	1	5
Method of conducting the variety test	1	7
Experiment data		7
Variety-date test. Results in 1918. Results in 1919. Results in 1920.		7 8 9 9
Summary of variety-date test		10
Description of varieties		10
APPENDIX		
List of varieties in variety test		12 12
In 1914		13 13
In 1917		13 14
In 1919		14 14
Rainfall data		15

[Blank Page in Original Bulletin]

CORN VARIETY EXPERIMENTS, SUBSTA-TION NO. 3, ANGLETON, TEXAS

By E. B. REYNOLDS, AGRONOMIST*

Substation No. 3, of the Texas Agricultural Experiment Station, is located in the Gulf Coastal Plains of Texas, at Angleton, in Brazoria County, approximately forty-four miles south of Houston and thirty-eight miles southwest of Galveston. The nearest point on the Gulf of

Mexico is about eighteen miles distant.

The topography of the region is prevailingly flat with poor drainage. The experiment fields of the substation farm are about 22.5 feet above sea-level. The soil is a black clay with a gray or dark clay subsoil classed by the Bureau of Soils, U. S. Department of Agriculture, as Victoria Clay. Chemical analysis shows this soil to be somewhat deficient in phosphorous, but it contains fairly large amounts of potash and lime.

The rainfall varies widely from year to year; for example, in 1917 the precipitation was 22.74 inches, while in 1919 it was 66.79 inches. The average annual rainfall for the seven-year period 1914-1920, inclusive, is 45.57 inches. The rainfall by months for the above period is given in an appendix at the back of this bulletin.

Substation No. 3 is one of the thirteen substations in Texas. Many of the experiments with corn which are conducted here are part of a broad investigation of corn and corn production that is being conducted

at several of the substations.

Publications reporting other experiments conducted with corn at Substation No. 3, are:

Bulletin No. 197—Progress Report of Substation No. 3, Angleton, Texas, 1909-1914.

Bulletin No. 229—Experiments at Substation No. 3, Angleton, Texas, 1909-1916.

Bulletin No. 230—Spacing of Rows in Corn and Its Effect Upon Grain Yield. (Exhausted.)

The present bulletin reports the results secured in variety tests of corn conducted at Substation No. 3, Angleton, Texas, during the years 1913-1920, inclusive. The experiments cover a period of eight years, but yield data have been secured for only seven crops; in 1915 the tests were destroyed by a tropical hurricane on August 16 and 17.

The yields of only a few of the high-yielding varieties are given in this report. A large number of varieties have been tested, but the number has varied from year to year. Low-yielding or otherwise undesirable varieties have been discarded as results warranted.

^{*}Superintendent of Substation No. 3 from August, 1918, to November, 1920. Credit is due Mr. N. E. Winters, who was Superintendent from 1913 to 1918.

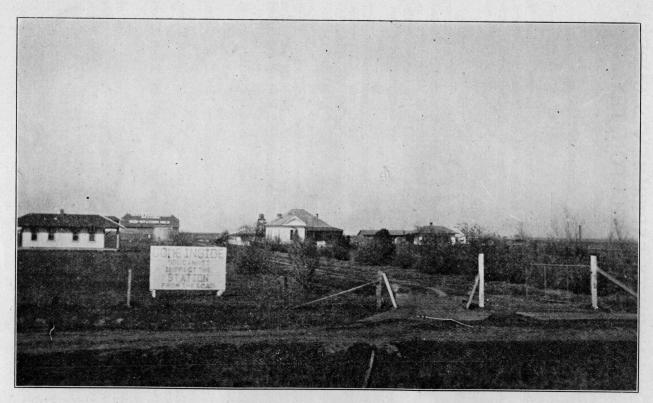


Figure 1. General View of Farmstead, Substation No. 3. Angleton, Texas.

METHOD OF CONDUCTING THE VARIETY TEST

Corn in the variety tests has always been planted in the same manner for all varieties in any given year. The rows have been three feet apart every year. In 1913, 1914, 1917, and 1918 the rate of planting was one stalk every three feet in the row, or 4840 stalks to the acre. In 1916, 1919, and 1920 the rate of planting was one stalk every two feet in the row, or 7260 stalks to the acre. Sufficient cultivation was given to keep down weeds and grass. Fertilizers were not used in these tests, except in 1917 when a blanket application of 171 pounds of acid phosphate to the acre was applied to all varieties.

EXPERIMENT DATA

Table 1 contains a list of eleven of the highest-yielding varieties of corn tested at Substation No. 3 during the years 1913 to 1920. The variety test included 36 varieties in 1913; 48 in 1914; 37 in 1916; 42 in 1917; 55 in 1918; 11 in 1919, and 11 in 1920. Of the eleven varieties in the table, only five were included in the test during each of the seven years. Fentress Strawberry, Florida Flint, Ferguson Yellow Dent, and Creole each were not included one year. Hastings' Prolific and Tuxpan were not included in two of the seven years.

Table 1.—Eleven of the best-yielding varieties in the variety test of corn, 1913-1920, inclusive.

V	Acre yield, bushels shelled corn.							
Variety name.	1913	1914	1916	1917	1918	1919	1920	Average
Fentress Strawberry Hastings' Prolific Ferguson Yellow Dent Thomas Chisholm Surcropper Virginia White Dent Tuxpan Cocke's Prolific Florida Flint Creole.	32.25 28.89 30.26 28.09 27.55 16.86 27.66	23.10 25.88 22.05 16.61 21.73	23.63 14.01 21.02 22.23	31.05 28.19 30.84 32.17 27.18 22.25 27.90	37.54 23.49 23.76 29.43 26.46 32.14 13.50 27.54 26.46 18.09 11.34	42.98 35.77 37.61 33.10 28.05 26.66 28.65 30.34 34.73 37.15	42.86	33.53 31.63 31.51 31.19 29.59 28.96 27.81 27.60 26.56 23.63 21.64

The varieties in Table 1 are arranged in order of average yield to the acre. These results show clearly that Fentress Strawberry, Hastings' Prolific, Ferguson Yellow Dent, Thomas, Chisholm, Surcropper, Virginia White Dent, and Tuxpan have been the best-yielding varieties.

VARIETY-DATE TEST

The data presented in the variety test of corn gave an opportunity to enlarge the scope of the experiment by using only the best varieties. In 1918 a more comprehensive test was begun for the purpose of testing the varieties in a more exhaustive manner and of finding a date of planting that would produce the best yields for each variety. The test was planned so as to have three dates of planting, early, medium, and late. The early planting was to be made as early as conditions would permit, which in general would be about the first of March; the second, or medium, planting, two weeks later; and the late planting two weeks later than the medium planting. These three dates of planting are well within the usual planting season of corn in this section of Texas.

Corn in this test has been planted in rows three feet apart, with one stalk every two feet in the row, or 7260 stalks to the acre. The test has been conducted for a period of three years, 1918, 1919, and 1920.

The results of each year are given in separate tables to show the yields of the different varieties at each date of planting, and the aver-

age yield of each variety for the three dates of planting.

Table 2 gives the results secured in 1918. This table shows all the varieties that were included in the test, the yield of the varieties at each date of seeding, and the average yield of each variety for the three plantings.

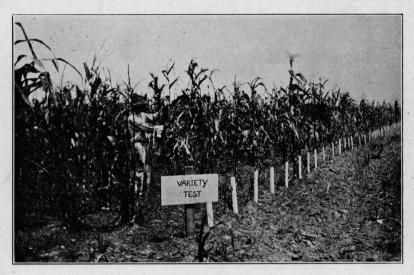


Figure 2. Variety Test of Corn at Substation No. 3.

Table 2.—Acre yield in bushels, variety-date test of corn in 1918.

Variety Name	Early Planting	Medium Planting	Late Planting	Average
Surcropper Chisholm Ferguson Yellow Dent Thomas Tuxpan Hastings' Prolific St. Charles White Clemens Yellow Florida Flint	27.27 26.23 18.25 14.19 8.87 19.35 6.47	29.79 19.04 12.74 9.58 13.87 8.18 1.65 9.58 6.92	21.87 14.86 14.18 14.33 12.59 14.76 8.95 12.90 15.29	27.46 20.39 17.71 14.05 13.55 10.60 9.98 9.65 9.31
Creole Cocke's Prolific	12.04	6.01 5.41	8.52 11.40	8.85
Average	16.91	11.16	13.60	

For each of the three dates of seeding in 1918 Surcropper produced the largest yield, while Chisholm produced the second largest yield in the early and medium plantings, but it did not maintain this yield in the late planting. Surcropper produced the highest average yield in 1918, followed in order of yield by Chisholm, Ferguson Yellow Dent, Thomas, and Tuxpan. Hastings' Prolific, St. Charles White, Clemens Yellow, Florida Flint, Creole, and Cocke's Prolific, produced relatively low yields as compared to the other varieties, which result was probably

due to the dry season.

Table 3 gives the yields of the three plantings and the average yields of each variety for the three dates of planting in 1919. Hastings' Prolific made the highest yield in the early planting; next to the highest yield in the second planting, and the highest average yield. Tuxpan maintained its yield at all dates of seeding better than the other varieties, and ranked next to Hastings' Prolific in average yield. Florida Flint, Creole, and Thomas follow in order of average yield.

Table 3 .- Acre yield in bushels, variety-date test of corn in 1919.

Variety Name	Early Planting	Medium Planting	Late Planting	Average
Hastings' Prolific Tuxpan Florida Flint Greole Thomas Ferguson Yellow Dent Surcropper Chisholm Virginia White Dent Cocke's Prolific	42.98 28.65 34.73 37.15 37.61 35.77 28.05 33.10 26.66 30.34 20.68	33.44 32.24 34.86 26.17 23.99 27.13 28.27 25.76 25.64 23.41 21.63	21.96 27.33 18.50 20.56 18.28 13.07 16.92 13.58 14.61 12.49 11.80	32.79 29.40 29.36 27.96 26.62 25.32 24.41 24.14 22.30 22.08 18.03
Average	32.33	27.50	17.19	

The average yields of all the varieties in 1919 were higher than they were in 1918, on account of the more favorable season. Hastings' Prolific, Florida Flint, and Creole, which made comparatively low yields in 1918, were among the best varieties in 1919.

The yield data secured in the variety-date test of corn in 1920 are given in Table 4. It will be noted that the average yields of all the varieties are much higher than they were in 1918 and 1919. These large yields are the results of an unusually favorable season for corn production.

Table 4.—Acre yield in bushels, variety-date test of corn in 1920.

Variety Name	Early Planting	Medium Planting	Late Planting	Average
Fentress Strawberry	53.31	47.91	42.41	47.87
Virginia White Dent	55.88	43.63	42.95	47.48
Ferguson Yellow Dent		49.13	38.44	46.63
Chisholm	50.44	44.60	35.46	43.50
Hastings' Prolific	. 46.27	37.26	46.85	43.46
Florida Flint	42.86	40.23	46.68	43.25
Surcropper	44.65	42.77	39.19	42.20
Cocke's Prolific	45.30	35.71	41.17	40.72
Thomas	. 44.72	40.04	36.56	40.44
Tuxpan	. 42.74	39.47	35.94	39.38
St. Charles White	34.39	25.98	27.12	29.16
Average	46.62	40.61	39 34	

In 1920 Virginia White Dent produced the highest yield in the early seeding, and the second highest average yield. Fentress Strawberry made the second highest yield in the first planting and the highest average yield. Ferguson Yellow Dent, Chisholm, and Hastings' Prolific follow in order of production.

SUMMARY OF THE VARIETY-DATE TEST OF CORN

Table 5 gives the average yields for all varieties during the three years, 1918, 1919, and 1920. Three of the varieties were not tested each year of the experiment. Creole was included in 1918 and 1919; Virginia White Dent in 1919 and 1920; while Fentress Strawberry was included in the test for the first time in 1920.

Table 5.—Acre yield in bushels of corn in the variety-date test, 1918-1920, inclusive.

	Acre Yield Bushels						
Variety Name	1918	1919	1920	Average			
urcropper	27.46	24.41	42.20	31.35			
Ferguson Yellow Dent	5 17.71	25.32	46.63	29.88			
hisholm	20.39	24.14	43.50	29.34			
lastings' Prolific	10.60	32.79	43.46	28.95			
`uxpan	13.55	29.40	39.38	27.44			
lorida Flint	9.31	29.36	43.25	27.30			
homas	14.05	26.62	40.44	27.03			
entress Strawberry			47.87				
ocke's Prolific	8.40	22.08	40.72	23.73			
irginia White Dent		22.30	47.48				
Charles White	9.98	18.03	29.16	19.05			
reole	8.85	27.96					

Surcropper has made the best average yield to the acre for the three years, followed in order of yield by Ferguson Yellow Dent, Chisholm, Hastings' Prolific, Tuxpan, Florida Flint, and Thomas. While Surcropper has produced the most corn to the acre, it is not a particularly desirable type of corn, except in yield, for the conditions in this part of Texas. The quality of the grain of this variety is sometimes poor, probably due to the fact that the shuck, or husk, is short and does not extend well over the tip, and thus leaves the latter exposed. This defect permits the entrance of water, which is conducive to rotting and to the entrance of molds. Birds and insects more readily attack ears having this defect. Ferguson Yellow Dent also has a tendency to rot. Fentress Strawberry has been included in the test only one year, but it is probably one of the best varieties, as was stated in the discussion of the variety test at the beginning of this bulletin. Tuxpan and Thomas are good-yielding varieties and are desirable types of corn for the Gulf Coastal Plains of Texas.

Tuxpan corn is being improved by the ear-to-row method of corn breeding at Substation No. 3, Angleton, and it is available for distribution to the public. Thomas corn is being improved by Substation No. 1, Beeville, Texas, and it may be obtained there or at Substation No. 3, Angleton, Texas.

DESCRIPTION OF VARIETIES

A few of the varieties of corn best adapted to the conditions in this part of Texas are described briefly here. These descriptions apply to

the varieties when grown at Angleton, Texas. These same varieties when grown under entirely different conditions may behave differently from the way here described.

Fentress Strawberry. A variety with large ears and large stalks. Ear: length, averages about $7\frac{1}{2}$ inches; diameter, about $2\frac{1}{4}$ inches. Cob, pink. Kernels, yellowish-white or yellow, with longitudinal red stripes; medium soft, dent. Shelling percentage, 75 to 78. Stalk: height, $6\frac{1}{2}$ to $8\frac{1}{2}$ feet; diameter, large. This variety does not have a tendency to produce many stalks with two or more ears. It matures medium early.

Surcropper. A variety with somewhat short, thick ears, having a length of 6 to 7 inches, and a diameter of about 2 inches. Cob, white. Kernels, large and coarse, white; medium soft, dent. Shelling percentage, 81 to 82. Stalk: height, 6 to $7\frac{1}{2}$ feet; diameter, medium. Shuck does not extend well over tip of ear. This variety produces a considerable number of stalks with two or more ears in favorable seasons. A medium early variety.

Chisholm. A variety with short, thick ears and stalks of medium height. Ear: length, averages about 7 inches; diameter, 2 to 2½ inches. Cob, red. Kernels, medium size, white; medium soft, dent. Shelling percentage, 81 to 82. Stalk: height, averages 6½ to 7 feet; diameter, medium. In favorable seasons this variety produces a considerable number of stalks with two or more ears. This variety is medium early in maturity.

Ferguson Yellow Dent. This variety has short ears with a large diameter. Ear: length, about 7 inches; diameter, about 2 inches. Cob, red. Kernels, yellow; soft, deeply dented. Shelling percentage, 82 to 84. Stalk: height, averages about 7 feet; diameter, medium. Medium early in maturity.

Hastings' Prolific. A variety of corn with small ears and tall stalks. Ear: length, 6 to $6\frac{1}{2}$ inches; diameter, about $1\frac{3}{4}$ inches. Cob, white. Kernels, small, white; medium soft, dent. Shelling percentage, 82 to 87. Stalk: height, averages 7 to $9\frac{1}{2}$ feet; diameter, medium. The shuck extends well over the tip of the ear. This is a typical variety of prolific corn. A medium early variety.

Tuxpan. This is a tall, rank-growing variety of corn. The ears are large and taper slightly from butt to tip. Ear: length, averages $7\frac{1}{2}$ to 8 inches; diameter, about $1\frac{\pi}{8}$ inches. Cob, white. Kernels, white; medium hard, dent. Shelling percentage, 78 to 82. Stalk: height, averages $8\frac{1}{2}$ to $10\frac{1}{2}$ feet; diameter, large. The shuck is thick and fits closely and extends well over the tip of the ear. This is a late-maturing variety, being about two weeks later than Thomas or Surcropper.

Thomas. A variety with a stalk of medium height. Ear: length, averages 6 to 7 inches; diameter, about 1\frac{3}{4} inches. Cob, small, white. Kernels, white; medium soft, dent. Shelling percentage, averages about 85. Stalk: height, 6 to 8\frac{1}{2} feet; diameter, medium. The shuck extends well over the tip of the ear. This is a medium early variety.

Table 6 presents the average yields of each date of planting for the

three years. The yield of the early, of the medium, and of the late planting is the average of the yields of the eleven varieties planted at the early, medium, and late dates, respectively.

Table 6.—Average yield of early, medium, and late planting of corn in the variety-date test of corn, 1918-1920.

	Acre Yield Bushels Shelled Corn						
Time of Planting	1918	1919	1920	Average			
Early Medium Late	16.91 11.16 13.60	32.33 27.50 17.19	46.62 40.61 39.34	31.95 26.42 23.37			

It will be noted from Table 6 that the best yields were obtained from the early seeding every year, and that the average yields decreased when the plantings were made at later dates. In 1918, however, the medium planting produced the lowest yield.

These results indicate that the most favorable date of planting corn

in this section of Texas is about the first of March.

APPENDIX.

A list of the varieties which were included in the variety tests of corn at Substation No. 3, Angleton, Texas, by years, is given here.

The name of each variety is preceded by its individual Texas Station Accession Number. This is a reference number given to each lot of seed received for testing and serves to identify it throughout its use, as well as to show its source, pedigree, and performance record.

CORN VARIETIES

1913

T. S. No.	T. S. No.		T. S. No.	
393 353 320 319 373 354 350 371 326 68 322 390	69 321 391 372 314 32 146 30 33 355 142 318	Mexican Tuxpan. Mexican June. Mexican June. Mortgage Lifter. Mosby's Prolific. Munson. Munson. Oklahoma White Wonder. Singleton Strawberry. Snowflake. Southern Beauty. Special Surcropper.		Squaw. St. Charles White. Surcropper. Surcropper. Texseed Giant White. Thomas. U. S. Selection 128. Virginia White Dent. White June. Wisconsin White Dent. Yellow Creole.

CORN VARIETIES

1914

T. S. No.		T. S. No.		T. S. No.	
916 1017 1021 909 925 919 921 1018	Blount's Prolific. Blue Grain. Boone County. Casey's Pure Bred. Champion White Pearl. Chappell's Prolific. Chisholm. Cocke's Prolific. Collier's Excelsior Columbian Beauty. Creole. Early Wonder.	1011 1009 929 923	Eureka. Ex. Early White Dent. Ex. Early Dent. Fentress Strawberry. Ferguson Yellow Dent. Florida Flint. Gold Standard. Hearn's White. Hickory King. Improved Golden Dent. Improved Leaming. Improved Munson. Laguna-Selection 136. Large Mexican June. Marlboro Prolific. Mosby's Prolific. Mortgage Lifter.	920 915 922 926 1006 928 907 911 918 1015	New Rockdale. Oklahoma White Wonder. Roger's White Dent. Silvermine. Snowflake. St. Charles White. Surcropper. Texseed Giant White. Texas Giant Strawberry, Thomas. U. S. Selection 77. U. S. Selection 159. Virginia White Dent. White Majestic. Wisconsin White Dent.

CORN VARIETIES

1916

T. S. No.		Ţ. S. No.		T. S. No.	186
1775 1711 1291 1305 1778 1710 1233 1799 1987 1779 1776	Bigg's Seven Ear. Blount's Prolific. Brazos White. Chisholm. Chisholm. Cocke's Prolific. Creole. Davis Prolific. Experiment Station Yellow. Fentress Strawberry. Ferguson Yellow Dent. Florida Flint.	1318 1228 1780 1986 1988 1714 1713 1783	Givens. Gorham Yellow Dent. Hastings' Prolific. Haupt's Golden Yellow Dent. Henry Grady. Improved Golden Dent. Improved Shoe Peg. Improved Squaw. June Corn. King's Earliest. Leaming.	1784 1316 1782 1774 1283 1284 1285 1777 1330	Mosby's Prolific. Munson. Oklahoma Yellow Dent. Rockdale. St. Charles White. Surcropper. Surcropper. Surcropper. Surcropper. Surcropper. Tankersley. Thomas. Virginia White Dent.

CORN VARIETIES

1917

T. S. No.		T. S. No.		T. S. No.	
2418 2421 2575 2431 2422 2423 2443 1779	Bigg's Seven Ear. Blount's Prolific Blue Grain. Boone County White Brazos White Casey's Pure Bred. Chisholm. Clemen's Yellow. Cocke's Prolific. Creole Flint. Davis Prolific. Experiment Station Yellow. Fentress Strawberry. Fentress Strawberry.		Ferguson Yellow Dent. Given's Red Cob. Golden Dent. Gorham's Yellow Dent. Hastings' Prolific. Henry Grady. Improved Indian Squaw. Improved Indian *Squaw. Improved Leaming. Mosby's Prolific. Munson. Oklahoma White Wonder.	2444 1713 2425 2435 2424 2445 1777 2420 327 1983 2573 2432 2572 2576	Schieberle White. Shoe Peg. Shoe Peg. Snowflake. St. Charles White. Strawberry. Surcropper. Surcropper. Thomas. Thomas. Tuxpan. Virginia White Dent. White Mogul. White Mogul.

CORN VARIETIES

1918

T. S. No.		T. S. No.		T. S. No.	
1092 1775 1966 2433 935 2577 3053 3042 2431 1967 3143 3013 2422 1961 2423 2443	Anderson's Yellow Dent. Bigg's Seven Ear. Bloody Butcher. Blount's Prolific. Blue Grain. Brazos White. Chisholm. Clark's Yellow Dent. Cocke's Prolific. Commercial White. Cowan's Yellow Dent. Croele. Dan Patch. Davis Prolific. Experiment Station Yellow.	2950 3011 2790 2963 2430 2947 1958 2436 2441 1960 2571 2954 3043 1975 1465 2447	Foster. Giant White Red Cob. Giant Yellow. Goldmine. Gorham's Yellow Dent. Greer. Halbert's Hybrid. Hastings' Prolific. Improved Indian Squaw. Large Prolific. Leaming. Leslie White. Local June. McCollough Yellow. McGalliard. Mosby's Prolific. Munson	1971 2397 2939 2437 2444 2960 2425 3051 2958 2424 2426 2420 2313 327 2944 2432 2943 2946	Old Glory. Redden Improved. Red Dent. Rockdale. Schieberle. Scott's White. Shoe Peg. Silvermine. Steele. St. Charles White. Strawberry. Surcropper. Texas Progress. Thomas. Tuxpan. Virginia White Dent. White Mogul.
3144	Dent.	3012	Nicholson's Bloody Butcher.	100	White.
1781	Florida Flint.	2439	Oklahoma White Wonder.		

CORN VARIETIES

1919

T. S. No.	Alfantina di An	T. S. No.		T. S. No.	
3613 3733	Chisholm. Cocke's Prolific. Creole. Ferguson Yellow Dent.	3734 3604 3605 3611	Florida Flint. Hastings' Prolific. St. Charles White. Surcropper.	2573	

CORN VARIETIES

1920

T. S. No.		T. S. No.		T. S. No.			
4194 4171	Chisholm. Cocke's Prolific. Fentress Strawberry. Ferguson Yellow Dent.	4175 4177	Florida Flint. Hasting's Prolific. St. Charles White. Surcropper.	2574	Thomas. Tuxpan. Virginia White Dent.		

RAINFALL DATA.

Table 7 gives the rainfall in inches at Angleton, Texas, by months from 1914 to 1920, inclusive.

Table 7.—Rainfall at Angleton, Texas, from 1914 to 1920, inclusive.

Month	1914	1915	1916	1917	1918	1919	1920	Average
January	0.49	2.96	1.62	2.34	0.27	6.20	6.02	2.842
February	3.16	4.03	0.13	2.98	0.85	2.59	1.85	2.227
March	2.93	3.53	0.42	0.75	2.30	9.21	1.36	2.928
April	13.46	2.25	1.64	2.37	5.65	1.35	.54	3.894
May	7.89	2.66	6.59	6.04	1.68	5.27	3.64	4.824
June	0.26	0.00	5.37	0.44	1.41	16.57	5.83	4.268
July	1.73	3.95	5.66	3.12	2.48	6.55	4.76	4.03
August	8.49	13.87	5.43	1.66	3.51	5.42	9.10	6.782
September	4.34	6.29	3.55	1.15	2.87	3.62	2.49	3.472
October	3.61	2.49	1.08	0:49	5.67	5.93	6.81	3.725
November	8.02	2.04	1.68	0.84	6.91	2.30	3.83	3.660
December	4.19	4.74	2.13	0.56	3.93	1.78	3.05	2.911
Total	58.57	48.81	35.30	22.74	37.53	66.79	49.28	45.57