NAME OF TEST: Small grain forage evaluation test, College Station, 1962-63.
OBJECTIVES: To evaluate new varieties of small grains for early and sustained production in comparison with standard varieties such as Mustang and New Nortex oats.
EXPERIMENTAL PROCEDURE:
Experiment No.: 3934-01
Location: Agronomy Farm, College Station, Texas
Soil type: Lufkin fine sandy loam.
Cultural practices: Seeded October 10, 1962 in plots consisting of 5 12-inch rows, 17 feet long, 6 replications, harvested 3 x 14 feet. A 48-48-48 fertilizer was broadcast and disked in prior to seeding and one 30-pound nitrogen top dressing was applied during the growing season. Supplementary irrigation was used as necessary to maintain moisture.
RESULTS: See tables.
DISCUSSION: Yields were poor in 1962-63 as they were in 1961-62 because of extremely cold periods and considerable winter killing. Temperatures of approximately 15 degrees in January caused considerable damage, especially to Goliad barley, Alamo, 57C-1716, Cebada Capa and Suregrain oats. The high yield of Gator and Elbon rye at the March 6 clipping indicates good adaptation to winter production. Selection 2274-3-1 oats also had a high yield in March.

PROJECT: State 1240
DATE SUBMITTED: July, 1963
WORKER: E. C. Holt

Small Grain Variety Test
Agronomy Farm, 1962-63

Variety	Pounds of dry forage per acre 12/5	3/6	4/9	Total	
2274-3-1	760	910	800	2470	a
Mustang	540	730	1180	2450	ab
Moregrain	950	480	930	2360	abc
Cordova barley	630	820	760	2210	abc
Suregrain	610	420	1190	2220	abc
Milam wheat	660	910	620	2190	abc
Alamo-X	900	670	590	2160	abcd
New Nortex	600	610	910	2120	abcde
Elbon rye	320	970	750	2040	bcdef
Gator rye	470	1210	330	2010	cdef
Alamo	690	390	620	1700	fg
57C-1716	760	270	580	1610	fg
Goliad barley	560	480	540	1580	g
Cebada Capa	1110	180	120	1410	g

Total yield values with a common letter designation do not differ significantly.
C.V. (%) 29.7

Forage yield of small grain varieties at College Station, 1956-63

Variety	Pounds of dry forage per acre							Comparable Average
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1956-63
Moregrain oats			3490	3920	3070	2040	2360	4640
Mid-South oats		5870	3000	3640	3510			3920
Elbon rye	6360	5050	3870	3730	3190	2440	2040	3810
Gator rye		4990	4000	3210	3170	2180	2010	3670
New Nortex oats	6640	5050	2680	3690	3250	1840	2120	3610
Milam wheat			3330	3280	3620	1860	2190	3590
Alamo-X oats					3100	2170	2160	3570
Suregrain oats		4870	3130	3570	2940	1780	2220	3490
Mustang oats	5410	5250	3270	3310	2790	1970	2450	3490
Cordova barley	5650	3930	3500	3260	2440	2000	2210	3280
Alamo oats	6270	4250	2380	2910	2680	1890	1700	3150
Goliad barley	4710	4260	2430	3340	3160	1810	1580	3040
57C-1716 oats						1670	1610	3030
2274-3-1							2470	3850
Cebada Capa							1410	2790
LSD (.05)	670	1020	580	660	770	320	400	
C.V. (%)	19.8	20.5	16.0	17.2	15.5	24.0	29.7	
No. of cuttings	5	4	4	4	4	4	3	

NAME OF TEST: Small grain variety test
Location: Substation No. 5, Temple, Texas
Soil type: Houston clay

SUMMARY: 1. The top forage producers in the variety test were Mustang Oats, Gator Rye, New Nortex Oats, and Elbon Rye.

2. No additional response was obtained by using a rate of nitrogen higher than 30 pounds per acre.

3. There was a favorable response to phosphorus at rates of 30 and 60 pounds per acre.

Table 1. Results of smallgrain variety test on the Blackland Experiment Station, Temple, Texas, 1963

	Pounds per acre air dry forage			
Variety	March 26	April 24	June 12	Total
Mustang Oats	615	1720	280	2615
Gator Rye	1880	475	185	2540
New Nortex Oats	320	1750	435	2505
Elbon Rye	1540	815	120	2475
Cordova Barley	880	1240	205	2325
Alamo X Oats	285	1510	310	2105
Rye Grass 137-5	160	1415	490	2065
Suregrain Oats	140	1280	475	1895
Moregrain Oats	285	1230	285	1800
Rye Grass 171-1	135	1235	410	1780
Gulf Coast Rye	85	1210	365	1660
Milam Wheat	550	785	205	1540
Alamo Oats	---	620	660	1280
Goliad Barley*	---	----	---	----
Oats 57C-1716*	---	----	---	----
L.S.D.	277	278	144	

* Winter killed

Project: 1240
Worker: E. C. Cook
Year: 1962-63

NAME OF TEST: Small grain variety evaluation for forage at Prairie View, 1962-63.

OBJECTIVE: To study the forage yield pattern and total yielding ability of small grain varieties.

EXPERIMENTAL PROCEDURE:

Experiment No.: 3936-01

Location: Substation No. 18, Prairie View

Soil type: Hockley fine sand

Cultural practices: Seeded October 19, 1962 in plots consisting of 5 12-inch rows, 17 feet long, harvested 3 center rows, 14 feet long. Area fertilized with 20-40-40 prior to seeding.

General conditions: Moisture adequate for germination. Growing conditions throughout most of the season were not favorable because of periods of drouth and extreme cold.

RESULTS: See tables.

DISCUSSION: Yields were below average for the growing season. Early production was not as good as in previous years. Midwinter production of Elbon indicates its ability to grow during cold weather. Cold damage to a number of the varieties caused extreme variation in the data and reduced total yields.

PROJECT: State 1240

DATE SUBMITTED: July, 1963

WORKER: O. E. Smith

Forage yield of small grain varieties at Prairie View, 1962-63

Variety	Pounds of dry forage per acre 1/3	3/14	4/11	Total	
Elbon rye	940	1110	400	2450	a
Gator rye	1430	670	310	2410	ab
Cordova	770	840	550	2160	ab
New Nortex	1200	210	520	1930	abc
2274-3-1	1260	210	410	1880	abc
Suregrain	1100	190	520	1810	abc
Milam wheat	720	760	290	1770	abcd
Mustang	720	570	430	1720	abcd
Moregrain	1080	160	430	1670	bcd
Cebada Capa	1270	120	0	1390	cde
Alamo-X	1200	30	120	1350	cde
Alamo	1210	0	140	1350	cde
57C-1716	990	0	30	1020	de
Goliad barley	660	120	140	920	e
C.V. (%)				52.7	

Total yield values with a common letter designation do not differ significantly.

Forage yield of small grain varieties at Prairie View, 1955-63

Variety	Pounds of dry forage per acre							Comparable Average
	1955-56	1956-57[1]	1958-59	1959-60	1960-61	1961-62	1962-63	1958-63
Elbon rye			6140	5250	2560	3070	2450	3890
Mid-South oats			5440	5870	2330			3810
Gator rye			5760	4740	2690	2000	2410	3520
Moregrain oats			4870	5400	2430	2290	1670	3330
New Nortex oats	2580	3430	4710	4830	2700	2390	1930	3310
Alamo-X					2050	2820	1350	3170
Mustang oats	3310	4200	4580	4970	1870	2530	1720	3130
Suregrain oats			4830	4140	2460	2150	1810	3080
Milam wheat			4730	4250	1670	1800	1770	2840
57C-1716 oats						1790	1020	2520
Alamo oats	3590	3650	3960	4270	1810	1940	1350	2670
Cordova barley	2750	3440	4740	4470	690	1580	2160	2730
Goliad barley	2470	3520	4140		780	1860	920	2310
2274-3-1							1880	3130
Cebada Capa							1390	2640
LSD (.05)	690	[1]	920	780		600	590	
C.V. (%)	23.2		15.5	26.4		37.7	52.7	
No. of Clippings	2		4	4	3	3	3	

[1] First clipping was delayed until March 14 and only the late varieties Bronco, New Nortex, Abruzzi and Cordova recovered. The data were not analyzed statistically.

NAME OF TEST: The evaluation of small grain varieties for forage, Mt. Pleasant, 1962-63.
OBJECTIVES: To determine the total yield, season of production and winter survival of small grains for forage.
EXPERIMENTAL PROCEDURE:
Experiment No.: 3948-02
Location: D. C. Hinson farm, Mt. Pleasant
Soil type: Sawyer fine sandy loam
Cultural practices: Seeded October 1, 1962 in plots consisting of 5 rows, 12 inches apart, 15 feet long, 4 replications; harvested 3 rows, 10 feet long. Fertilized with 30-60-60 at planting and top dressed with 30-0-0 on February 19, 1963.
Weather conditions: The weather conditions during the growing period were below normal. Severe temperatures were prevalent in January and portions of February.
Rainfall: The total rainfall for the period was 23.03 inches.
Source of materials: Dr. E. C. Holt
RESULTS: See tables.

PROJECT: State 1240
DATE SUBMITTED: July, 1963
WORKER: J. A. Lancaster

Small Grain Variety Test
Mt. Pleasant, 1962-63

Variety	Pounds of air-dry forage per acre 12/4	3/18	4/1	Total		Winter Survival[1/]
Elbon rye	450	1480	320	2250	a	5
Gator rye	870	910	280	2060	a	4
Alamo X	1570	0	0	1570	b	1
Moregrain	610	0	600	1210	bc	4
Mustang	150	0	1050	1200	bc	4
Cordova barley	360	0	670	1030	cd	3
Suregrain	450	0	440	890	cde	3
New Nortex	170	0	720	890	cde	4
Alamo	570	0	0	570	ef	1
57C-1716	560	0	0	560	ef	1
Goliad barley	530	0	0	530	ef	1
Milam wheat	190	0	0	190	f	1

1/ 1 = poor; 5 = excellent
C.V. (%) 45.9
Total yield values with a common letter designation do not differ significantly.

Forage yield of small grain varieties at Mt. Pleasant, 1957-63

Variety	Pounds of air-dry forage per acre						Comparable Average
	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1957-63
Elbon rye	4630	5790	2650	6030	4430	2250	4300
Moregrain oats		4040	5760	6090	3700	1210	4250
Gator rye	4680	6240	3870	5020	2940	2060	4140
Alamo X				6210	3440	1570	3830
Mid-South oats		3390	3450	5610			3590
Suregrain oats		3320	2720	5780	4060	890	3440
New Nortex oats	4380	2550	4270	5540	2900	890	3420
Mustang oats	4160	3930	2390	4920	3800	1200	3400
Goliad				5360	3370	530	3170
57C-1716 oat					2490	560	2590
Cordova barley	1870	3650	1250	4360	3270	1030	2570
Alamo oats	3330	950	2060	5670	2590	570	2530
Milam wheat		2120		4320	2860	190	2320
L.S.D.	530	810	980	1070		400	
C.V. (%)	6.6	18.2	38.2	28.4	23.9	45.9	
No. of cuttings	6	5	3	4	4	3	

NAME OF TEST: Small Grain and Ryegrass Variety Test, Angleton, 1963.
OBJECTIVES: To evaluate small grain varieties and ryegrass strains for forage production, rust resistance and cold tolerance.
EXPERIMENTAL PROCEDURE:
Location: Substation No. 3, Angleton, Texas
Soil type: Lake Charles Clay
Cultural practices: Planted November 14, 1962 in plots of 5 rows - 1 foot apart and 20 feet long - and fertilized with 30-30-0 at planting.
RESULTS: See Table 1
DISCUSSION: Low temperature of 14°F on January 10, 1963 resulted in some plant kill on Alamo and 57C-1716 oats with severe leaf burn of plants not completely killed. Moregrain and Alamo X also suffered considerable leaf burn.

PROJECT: S-1240
DATE SUBMITTED: January, 1964
WORKER: Marvin E. Riewe

Table 1. Pounds per acre dry matter yields of small grains and ryegrass, Angleton, 1963

Variety	Harvest date	Lbs./ac. yield		Dust rating 1/
Milam wheat	4/8	6320	a	2
Ryegrass 171-1	4/25	5590	b	1
Ryegrass 137-5	4/25	5420	bc	1
Moregrain oat	4/8	5350	bc	2
Suregrain oat	4/8	5300	bc	4
57C-1716 oat	4/8	5100	bc	2
Gulf ryegrass	4/25	4850	cd	1
Alamo X oat	4/8	4370	de	10
Alamo	4/8	3990	e	7
Mustang	4/8	3910	e	10

1/ 1=no or very little rust, 10=severe rust. Alamo X and Mustang oat were badly infected that neither headed out.

NAME OF TEST: Ryegrass variety evaluation test at College Station, Texas
OBJECTIVES: To evaluate experimental materials for early and total forage production and resistance to leaf rust.
EXPERIMENTAL PROCEDURE:
Experiment No.: 3926-01
Location: Agronomy Farm, College Station, Texas
Soil type: Lufkin fine sandy loam
Cultural practices: Planted October 9, 1962 in plots consisting of five 12-inch rows, 14 feet long, 6 replications, harvested area 3 x 12 feet. The area was topdressed with 40 pounds of nitrogen April 12, 1963. Moisture was maintained by irrigation when necessary.
RESULTS: See tables.

PROJECT: State 1240
DATE SUBMITTED: July, 1963
WORKER: E. C. Holt

Ryegrass Variety Test
Agronomy Farm, 1962-63

Variety	Pounds dry forage per acre Jan. 17	Mar. 13	April 22	Total	
Stoneville #2 Rust Res.	1680	670	2110	4460	a
Texas Synthetic Early	1780	590	1860	4230	ab
Mississippi Blend Ryegrass	1850	540	1770	4160	ab
CS 171-1	1920	500	1600	4020	abc
Miss. State College #3	1980	440	1440	3860	abc
Tifton #1 Rust Res.	1850	570	1440	3860	abc
Miss. State College #4	1740	520	1580	3840	abc
Miss. State College #5	1950	510	1360	3820	abc
Gulf Ryegrass	1530	760	1500	3790	abc
Stoneville #3 Rust Res.	1570	550	1640	3760	abc
Mississippi Synthetic	1750	540	1410	3700	abc
Commercial Domestic	1780	570	1320	3670	abc
Miss. State College #1	1770	420	1450	3640	abc
Miss. State College #2	1410	700	1500	3610	bc
Stoneville #1 Rust Res.	1240	510	1530	3280	c
Florida Rust Resistant	960	900	1390	3250	c
Commercial Perennial	670	250	1160	2080	d
Morlea Perennial	310	0	1360	1670	d

Total yield values with a common letter designation do not differ significantly.

Forage yield of ryegrass varieties at College Station, 1956-63

Variety	Pounds of dry forage per acre 1956-57	1957-58	1958-59 (1)	1959-60 (2)	1960-61	1961-62	1962-63	Comparable Average 1956-63
Stoneville #2			3920 (3.2)	3540 (1.5)	4550	1680	4460	4260
Texas Synthetic Early	7410	3830	4600 (2.2)	3780 (1.2)	3940	1690	4230	4210
Stoneville #1			3180 (2.8)	3390 (1.3)	4640	1710	3280	3870
Gulf	7290	3080	4080 (4.7)	3620 (1.2)	3520	1710	3790	3870
Stoneville #3				3590 (1.1)	3070	1590	3760	3790
Florida Rust Resistant	7230	2890	4210 (2.0)	1220 (4.4)	3350	1600	3250	3390
Common	6720	3210	2350 (10.0)	2860 (3.2)	3120	1550	3670	3350
Perennial	7340	1720	2010 (4.8)	2200 (2.8)	2150	730	2080	2600
State College #4					4290	1840	3840	4120
State College #1					4410	1570	3640	4000
State College #5					3940	1540	3820	3900
State College #2					4120	1400	3610	3840
State College #3					3590	1680	3860	3840
Tetrone (N9-7)					2530	1110		2970
Tifton #1						1500	3860	3740
Mississippi Blend Ryegrass							4160	4240
CS 171-1							4020	4100
Mississippi Snythetic							3700	3780
LSD (.05)	N.S.	670	860	365	1320	220	760	
C.V. (%)		20.9	20.2	32.9	29.0	20.4	29.3	
No. of cuttings	3	3	3	3	3	3	3	

(1) Numbers in parenthesis are rust ratings on a 1 to 10 scale with 1 representing no rust.

(2) Numbers in parenthesis are rust ratings on a 1 to 5 scale with 1 representing no rust.

The tests were conducted on Miller clay soil except for 1958-60 and 1961-63 which were on Lufkin fine sandy loam.

NAME OF TEST: Ryegrass variety yield test, Prairie View, 1962-63.
OBJECTIVES: To study the yield performance and rust infection of experimental ryegrass varieties in comparison with common ryegrass.
EXPERIMENTAL PROCEDURE:
Experiment No.: 3935-01
Location: Substation No. 18, Prairie View, Texas
Soil type: Hockley fine sand
Cultural practices: Planted October 19, 1962 in plots consisting of five 12-inch rows, 17 feet long, harvested 3 center rows, 14 feet long. Area fertilized with 20-40-40 prior to planting; seeding rate 10 pounds per acre.
General conditions: Moisture inadequate for immediate emergence. Growing conditions throughout most of the season were below average both from periods of inadequate moisture and extreme cold.
RESULTS: See tables.

PROJECT: State 1240
DATE SUBMITTED: July, 1963
WORKER: O. E. Smith

Forage yield of ryegrass varieties, Prairie View, 1962-63

Variety	Pounds of dry forage per acre 1/3	3/14	4/10	Total	
Mississippi State College #5	1450	830	1180	3460	a
Gulf	1340	900	1130	3370	ab
CS 137-5	1150	960	1250	3360	ab
Stoneville #2	1460	780	980	3220	abc
Mississippi State College #3	1350	770	1090	3210	abc
Florida Rust Resistant	730	1470	1000	3200	abc
Mississippi State College #1	1250	760	1140	3150	abc
Mississippi State College #2	990	1030	1040	3060	abc
Mississippi Synthetic	1190	750	1110	3050	abc
CS 171-1	1220	740	1010	2970	abc
Mississippi State College #4	910	880	1170	2960	abc
Mississippi Blend Ryegrass	1130	760	1040	2930	abc
Stoneville #3	1340	670	840	2850	abc
Tifton #1	1070	880	800	2750	abc
Stoneville #1	1410	590	720	2720	bc
Commercial Domestic	1270	650	690	2610	c
Commercial Perennial	590	600	500	1690	d
Norlea Perennial	240	600	620	1460	d

C.V. (%) 31.7
Total yield values with a common letter designation do not differ significantly .

Forage yield of ryegrass varieties, Prairie View, 1958-63

Variety	Pounds of dry forage per acre 1958-59	1959-60	1960-61	1961-62	1962-63	Comparable Average 1958-63
State College #1			3370	2740	3150	4610
State College #3			3760	2190	3210	4580
Florida Rust Resistant	6800		3980	1590	3200	4550
State College #4			3760	2280	2960	4520
State College #5			3690	2000	3460	4570
State College #2			3640	2130	3060	4470
Gulf	5820	7370	3890	1890	3370	4470
Stoneville #2	6140	6730	3590	2100	3220	4360
Tifton #1				2230	2750	4290
CS 137-5	5890	6550		1560	3360	4260
Stoneville #3		6850	3380	1500	2850	4130
Commercial Domestic	6300	7060	3020	1180	2610	4030
CS 171-1				1460	2970	4020
Stoneville #1	5870	6140	3080	1450	2720	3850
Commercial Perennial	5170	5280	1140	790	1690	2810
Mississippi Synthetic					3050	4230
Mississippi Blend Ryegrass					2930	4110
Norlea Perennial					1460	2640
LSD (.05)	800	650	925	180	600	
C.V. (%)	9.5	13.5	32.7	29.1	31.7	
No. of cuttings	3	3	3	3	3	

NAME OF TEST: Ryegrass evaluation test, Mt. Pleasant, 1962-63
OBJECTIVE: To evaluate varieties for seasonal and total forage production.
EXPERIMENTAL PROCEDURE:

Experiment No.: 3948-03
Location: D. C. Hinson farm, Mt. Pleasant, Texas
Soil type: Sawyer fine sandy loam
Experimental design: Randomized, 4 replications, plots 5 rows (12 inches between rows) 15 feet long. Harvested area 3 rows, 10 feet long.
Cultural practices: Planted October 3, 1962, fertilized with 30-60-60 prior to planting.
Weather conditions: Weather conditions for the growing period were below normal. Low temperatures were prevalent in January and parts of February.
Rainfall: Total rainfall for the period was 23.03 inches.
Source of materials: Dr. E. C. Holt

RESULTS: See tables.

PROJECT: State 1240
DATE SUBMITTED: July, 1963
WORKER: J. A. Lancaster

Ryegrass Variety Test
Mt. Pleasant, 1962-63

Variety	Pounds of air-dry forage per acre 4/8	4/30	Total
Stoneville #2	330	1110	1440 a
Mississippi Synthetic	360	1020	1380 ab
Commercial Perennial	270	1090	1360 ab
171-1	230	1120	1350 ab
Stoneville #1	300	1050	1350 ab
Tifton	330	1010	1340 ab
Mississippi Blend	300	1040	1340 ab
Mississippi State College #3	320	1010	1330 ab
Gulf	240	1070	1310 ab
Stoneville #3	270	1030	1300 ab
137-5	310	980	1290 ab
Florida Rust Resistant	290	970	1260 ab
Mississippi State College #2	260	970	1230 ab
Mississippi State College #4	270	950	1220 ab
Commercial Domestic	400	800	1200 ab
Mississippi State College #5	220	970	1190 ab
Mississippi State College #1	200	950	1150 ab
Norlea Perennial	190	900	1090 b
C.V. (%)			21.2

Total yield values with a common letter designation do not differ significantly.

Forage yield of ryegrass varieties at Mt. Pleasant, 1959-63

Variety	1959-60	1960-61	1961-62	1962-63	Comparable Average 1959-63
College Station #1	2780	5050	5510		3870
College Station 07-6			5420		3630
Gulf	2980	4720	5410	1310	3610
171-1			5520	1350	3400
State College #3		4690	5050	1330	3390
State College #5		4160	5240	1190	3230
State College #4		4180	5130	1220	3210
Florida Rust Resistant		3720	5490	1260	3190
Stoneville #2	2480	4060	4770	1440	3190
State College #2		4210	4960	1230	3170
Stoneville #3	1820	4720	4650	1300	3120
State College #1		3950	5040	1150	3080
Stoneville #1	1870	3740	5220	1350	3050
Commercial Domestic	2360	3600	5000	1200	3040
Tifton #1			4210	1340	2740
Commercial Perennial	1470	2410	3980	1360	2310
Mississippi Synthetic				1380	3100
Mississippi Blend				1340	3060
137-5				1290	3010
Norlea Perennial				1090	2810
LSD (.05)	690	700		270	
C.V. (%)	31.2	21.0	16.4	21.2	
No. of Clippings	2	3	3	2	

NAME OF TEST: Sudan variety and hybrid evaluation, Brazos River Valley Laboratory, 1963

OBJECTIVE: To evaluate varieties and hybrids for forage yield and regrowth ability.

EXPERIMENTAL PROCEDURE:

Experiment No.: 4084-01

Location: Brazos River Valley Lab near College Station, Texas

Soil type: Miller clay

Cultural practices: Planted April 16, 1963 in plots consisting of three 40-inch rows, 20 feet long, 6 replications, center row harvested for yield. A 36-36-36 fertilizer applied in band under row when land was prepared for planting. The area was irrigated as necessary for good growth. A top dressing of 30 pounds of N per acre was applied July 29, 1963.

RESULTS: See tables.

DISCUSSION: Yields were above average in 1962 with the hybrids producing more in general than varieties. A comparison of varieties which have been in the test only one year should be on the basis of performance in that year and not on the basis of comparable averages shown in the second table. Comparable averages based on one year are not very reliable.

WORKERS: E. C. Holt and Stanley Simecek

PROJECT NO.: State 1240

DATE SUBMITTED: January, 1964

Table 1. Forage yield of Sudan varieties and hybrids, Brazos River Valley Lab

Variety or hybrid	June 4	July 1	July 30	Sept. 5	Nov. 13	Total	
Trudan I	2940	2890	2990	3010	2070	13900	a
PAG 34	2590	3200	2890	3460	1970	14110	ab
Sweet Sioux	3090	2970	3360	2670	1410	13500	ab
Sudax 11	2780	2810	2250	2920	2500	13260	ab
Hay Grazer	2720	3100	2340	2890	2200	13250	ab
Sorghum Almum	2060	3020	2240	3190	2670	13180	abc
Nebraska Sorghum Sudan Hybrid	2990	3540	2540	2680	930	12680	abc
Kow Kandy	2990	2750	2430	2560	1780	12510	abcd
Tenn. Syn. #1	1940	2760	2670	2740	2340	12450	abcd
Duet	2710	2610	1980	2600	2480	12380	abcde
Piper Sudan	2470	2660	2560	2690	2000	12380	abcdef
H 1851	3760	2530	2490	2300	1270	12350	abcdefg
Grazer W	2980	2460	2650	2710	1540	12340	abcdefgh
Rhodesian x Stone. Syn.	1700	2610	2830	3060	1670	11870	bcdefghi
Okla. Piper x S. Prop.	1630	2590	2480	2710	2350	11760	bcdefghi
Suhi-1 Sudan	1670	2510	2170	2580	2130	11060	cdefghij
Greenleaf Sudan	1890	2280	2170	2010	2660	11010	cdefghij
Stoneville Selection	1670	1650	1910	2650	2760	10640	defghij
Perennial Sweet	1170	2440	2240	2870	1770	10490	ij
Stoneville Syn. #2	1660	1930	2140	2460	2060	10250	ij
Sweet 372	1660	2270	2690	1760	1350	9730	j
C.V. (%)						27.3	

Table 2. Forage yield of Sudangrass varieties, Brazos River Valley Lab, 1956-63

Variety	Pounds of dry forage per acre								Comparable average
	1956	1957	1958	1959	1960	1961	1962	1963	
PAG 34							10490	14110	10290
Trudan I							10050	13900	9960
Hay Grazer							10330	13250	9780
Sweet Sioux							9800	13500	9640
Sudax 11				10280		6960	11370	13260	9520
Sorghum Almum	5180	5520	10760	11140	8500	6800	9050	13180	8770
Grazer W						6380	10180	12340	8620
Rhodesian x Stone. Syn.							9360	11870	8600
Common	4770	7230	9860				8170		8370
Stoneville Snythetic #1		6280	10720	7980	8120	5900	8490		8050
Piper Sudan	4760	7850	8970	8440	7470	6720	7650	12380	7780
Tift			9860	7350	7580				7680
Perennial Sweet	4320	5510	10120	7310	6990	8320	8140	10490	7650
Suhi-1 Sudan							7830	11060	7430
Georgia 337	3920	6420	9290	7180	7070	5660			7260
Oklahoma Exp.					7350	5370			7030
Stoneville Sel.		6230	8750	7890	6390	5070		10640	6960
Greenleaf Sudan	3750	5830	6490	6950	6550	5130	6040	11010	6470
Sweet 372	4500	5820	8240	6750	5650		5340	9730	6430
Lahoma	3590	5740	8420	6290		4180			6380
Wheeler						4890			5880
Neb. Sorghum-Sudan Hybrid								12680	8640
Kow Kandy								12510	8470
Tenn. Syn. #1								12450	8410
Duet								12380	8340
H 1851								12350	8310
Okla. Piper x S. Prop.								11760	7720
Stoneville Syn. #2								10250	6214
LSD (.05)	N.S.	N.S.	1730	1950	2350	N.S.	2130	2110	
C.V.(%)	16.0	19.2	21.9	22.5	7.0	---	32.2	27.3	
No. of clippings	3	4	3	3	4	3	3	5	

NAME OF TEST: Sudan variety forage evaluation test, 1963

OBJECTIVES: To try to ascertain the characteristics of a Sudan variety that would be best adapted for South Texas condition through its relative forage-production characteristics.

EXPERIMENTAL PROCEDURE:

Experiment No.: 4035-04

Location: Substation No. 1, Beeville

Soil type: Clareville sandy clay loam

Experiment design: Randomized block, 4 replications, 2-row plots (38" x 40' long).

Crop management: Test planted in March. Seeding rate was 12 pounds per acre. No irrigation was applied. The entire growing period was extremely dry. Only 3.16 inches of rainfall between January 1 and June 1. Two clippings were made - May 10-17 and July 20.

Table 1. Forage yield of Sudan varieties and hybrids, Beeville, 1963

Variety	Pounds dry forage per acre		
	May 10-17	July 20	Total
Sorghum almum	1370	3090	4460 a
Hay Grazer	1840	2060	3900 ab
Kow Kandy	1940	1840	3780 bc
Grazer	1880	1900	3780 bc
Stoneville Synthetic No. 2	1790	1870	2660 bc
Rhod. X Stoneville Syn.	1430	2170	3600 bc
Sweet Sioux	1590	1960	3550 bc
Suhi-1	1350	2140	3490 bc
Okla. Piper X S. prop.	1410	2060	3470 bc
Sudax 11	1840	1620	3460 bc
Piper	1520	1800	3320 bc
Stoneville Selection	1510	1720	3230 bc
Tenn. Syn. No. 1	1330	1820	3150 c
Sweet 372	1750	1390	3140 c
Perennial Sweet	900	2210	3110 c
Common	880	820	1700 d
C.V. (%)	9.3		17.4

Total yield values with a common letter designation do not differ significantly.

Table 2. Forage yield of Sudan varieties and hybrids, Beeville, 1958-63

Variety	1958	1959	1960	1961	1962	1963	Comparable average 1961-63
Haygrazer					10090	3900	6840
Grazer W			5690	5760	10330	3780	6620
Kow Kandy					8990	3780	6230
Sorghum Almum	5630		5260	5410	8730	4460	6200
Sudax 11		6180		5830	9290	3460	6190
Suhi-1 (Rhod x Tift)				5690	7790	3490	5660
Stoneville Synthetic #2						3660	5490
Sweet Sioux					7620	3550	5430
Tenn. Synthetic #1					7670	3150	5260
Rhod. x Stone. Synthetic					7000	3600	5150
Piper	3580	2820	3990		7140	3320	5080
Stoneville Selection	4490	4000	3010			3230	5060
Perennial Sweet Sorgrass	4610	3690	3270	4250	7750	3110	5040
Stoneville Synthetic #1	3930	4690	3970		7130		5000
Okla. Piper x S. prop.				4890	5940	3470	4770
Greenleaf		2980	3040	3700	5350		3610
Sweet 372	2390	3730	3090	3340	3760	3140	3410
Common	2880	3420	4700	3620	4730	1700	3350
50% Sweet - 50% Common	2430	3580	3510	4040	3400		2810
LSD (.05)	780	560	890	620	2800	830	
C.V. (%)	14.4	10.4	12.1	15.1	39.4	17.4	
No. of cuttings	3	3	3	3	3	2	

PROJECT: 1240
DATE SUBMITTED: October, 1963
WORKER: Billy Conrad

NAME OF TEST: Sudangrass variety test
Location: Substatation No. 5, Temple, Texas
Soil type: Houston clay

Table 1. Results of sudan variety test, Temple, Texas, 1963

Variety	Pounds per acre air dry forage		
	1st clipping June 26	2nd clipping October 28	Total
Sweet Sioux	5680	1050	6730
Golden Sue	4745	1120	5865
H 1851	4595	1205	5800
Hay Grazer	4820	955	5775
PAG 34	4670	1100	5770
PAG 35	4920	790	5710
Duet	5015	650	5665
Grazer	4810	765	5575
Leafy Sue	4610	820	5430
Sudax 11	4635	775	5410
Honey Sweet	4450	860	5310
Kow Kandy	4355	855	5210
Harper H3	4215	920	5135
King 61	4195	845	5040
Kasch Grazem	4040	950	4990
Trudan	3690	860	4550
Rhodesian X Stoneville Syn.	3490	885	4375
Suhi-1	3355	960	4315
Sorghum Almum	3140	795	3935
Piper	2825	600	3425
Okla. Piper X S. Propinquum	2850	520	3370
Tenn. Syn. #1	2705	660	3365
Greenleaf	2890	475	3365
Stoneville Selection	3005	335	3340
Perennial Sweet	2320	635	2955
Stoneville Syn. #2	2600	345	2945
L.S.D.	614	231	

Worker: E. D. Cook
Project: 1240
Year: 1963

NAME OF TEST: Sudan variety and hybrid evaluation for forage production, Prairie View

OBJECTIVES: To evaluate the yield and regrowth ability of available varieties and hybrids of Sudan and Sudan-type plants.

EXPERIMENTAL PROCEDURE:

Experiment No.: 4083-01

Location: Prairie View

Year: 1963

Soil type: Hockley fine sand

Cultural practices: Planted April 11, 1963 in plots consisting of three 40-inch rows, 20 feet long, 6 replications. Soil moisture was not adequate for emergence at the time of planting and variable stands were obtained. As a result a high coefficient of variation was encountered. The area had been fertilized with 25-50-50 prior to planting.

Source of seed: See listing at beginning of Sudan section.

RESULTS: See tables

PROJECT: State 1240

DATE SUBMITTED: March, 1964

WORKER: O. E. Smith

Table 1. Forage yield of Sudan varieties and hybrids, Prairie View, 1963

Variety or hybrid	Pounds of air-dry forage per acre			
	June 7	July 18	Sept. 12	Total
Sweet Sioux	3580	4750	1360	9690 a
Grazer W	3760	4040	1230	9030 ab
Rhod. X Stoneville Syn.	3140	4080	1770	8990 ab
H 1851	3110	4110	1620	8840 abc
PAG-35	3140	4190	1280	8610 abcd
Kow Kandy	3320	3260	1710	8290 abcde
Hay Grazer	3020	3870	1340	8230 abcde
Sorghum Almum	2520	3570	1680	7770 bcde
PAG-34	2870	2830	1810	7510 abcd
Suhi 1 Sudan	2200	3220	1730	7150 cdef
Sudax 11	2110	3680	1150	6940 def
Trudan I	2710	2890	1150	6750 ef
Okla. Piper X S. Prop.	2190	3070	1320	6580 efg
Nebraska Sorghum Sudan Hybrid	2020	3040	1490	6550 efg
Piper Sudan	2370	2540	850	5760 fgh
Tenn. #1 Synthetic	2110	2640	900	5650 fgh
Perennial Sweet	1340	2890	1320	5550 fgh
Stoneville Selection	2020	2310	620	4950 gh
Duet	2450	2160	270	4880 gh
Greenleaf Sudan	1260	2550	780	4590 hi
Sweet 372	2160	1570	560	4290 hi
Stoneville Snythetic #2	1550	1530	0	3080 i
C.V. (%)				41.9

Table 2. Forage yield of Sudan varieties and hybrids, Prairie View

Variety	Pounds of air-dry forage per acre 1957	1959	1960	1963	Comparable average
Sudax 11		13190		6940	10000
Sorghum Almum		11500	7600	7770	9560
Oklahoma Exp.			5480		7430
Tift		8400	5190		7170
Perennial Sweet		8150		5550	6780
Stoneville Selection	9380	7520	4850	4950	6680
Stoneville Synthetic #1	7410	8940	3160		6150
Piper Sudan	6790	6740	4290	5760	5900
Georgia 337	7310	7610	3610		5830
Greenleaf Sudan	7070	7470	3860	4590	5750
Lahoma	7280	7050			5670
Sweet 372	7820	6830	3030	4290	5490
Common	6420				4610
Commercial Sweet	6370				4560
Sweet Sioux				9690	10750
Grazer W				9030	10090
Rhodesian X Stoneville Synthetic				8990	10050
H 1851				8840	9900
PAG 35				8610	9670
Kow Kandy				8290	9350
Hay Grazer				8230	9290
PAG 34				7510	8570
Suhi-1 Sudan				7150	8210
Trudan				6750	7810
Oklahoma Piper S. Prop.				6580	7640
Nebraska Sorghum Sudan Hybrid				6550	7610
Tennessee #1 Synthetic				5650	6710
Duet				4880	5940
Stoneville Synthetic #2				3080	4140
LSD (.05)	N.S.	1540	1610	1880	
C.V. (%)	30.7	18.2	29.9	41.9	
Number of cuttings	2	2	2	3	

NAME OF TEST: Sudan variety test, Mt. Pleasant, 1963
OBJECTIVE: To determine the percent of leaves, adaptation, and yield of sudan varieties.
EXPERIMENTAL PROCEDURE: Experiment No. 4034-01-02
Location: C. D. Henson farm, Mt. Pleasant, Texas
Soil type: Sawyer fine sandy loam
Source of materials: Dr. E. C. Holt
Experimental design:
A. Randomized, 4 reps
B. Plot size: 3 rows planted 40 inches apart, 30 feet long
C. Area clipped for yield 20 feet of one row (center row)
CROP MANAGEMENT PRACTICES:
Planted: June 3, 1963
Fertilized: 30-60-60 on May 31, 1963
GENERAL: Weather conditions were about normal for most of the growing period. Moisture was limited the last of July and August. Total rainfall - 14.36 inches.
NOTE: Leaf percentage was determined by weighing 5 plants, removing the leaves, weighing the leaves, then calculating the percentage leaves.
RESULTS: See tables.
PROJECT: 1240
DATE SUBMITTED: November, 1963
WORKER: J. A. Lancaster

Table 1. Forage yield and leaf percentage of sudangrass varieties Mt. Pleasant, 1963

Code variety or number hybrid	Pounds air-dry forage per acre					% leaves			
	July 3	July 19	Aug. 15	Total		July 3	July 19	Aug. 15	Average
Duet	280	580	820	1680	hi	67	54	53	58 a
Grazer	550	810	1410	2770	abcd	44	39	39	41 bc
Greenleaf	160	620	1640	2420	abcdef	58	41	33	44 bc
Hay Grazer	540	820	1440	2800	abc	50	39	31	40 bc
H 1851	400	770	1480	2650	abcde	46	35	29	37 bc
Kow Kandy	440	780	1580	2800	ab	49	36	37	41 bc
Piper	120	750	1790	2660	abcde	44	32	30	35 bc
(Okla.) Piper x S. Prop.	70	640	1350	2060	defghi	50	30	29	36 bc
PAG 34	340	910	1490	2840	ab	50	32	17	33 c
PAG 35	270	800	1330	2400	abcdefg	43	36	37	39 bc
Neb. Sorghum x Sudan	470	720	1240	2430	abcdef	42	37	36	38 bc
Stoneville Selection	250	610	690	1550	hi	50	44	37	44 bc
Stoneville Synthetic #2	140	600	970	1710	hi	59	34	41	45 b
Sweet 372	70	640	1500	2210	abcdefgh	55	35	32	41 bc
Sorghum Almum	40	480	1280	1800	fghi	51	30	35	39 bc
Sweet Sioux	390	830	1410	2630	abcde	48	31	34	38 bc
Sudax 11	430	690	1800	2920	a	54	36	30	40 bc
Suhi-1	210	720	1220	2150	bcdefghi	52	36	39	42 bc
Rhod. x Stoneville Syn.	130	810	1760	2700	abcde	61	43	30	45 b
Tenn. Synthetic #1	0	340	1160	1500	i	46	32	26	35 bc
Trudan	210	670	1710	2590	abcde	50	37	48	45 b
Perennial Sweet	60	580	1340	1980	efghi	53	46	37	45 b
C.V. (%)				31.7					21.8

Total and average values with a common letter designation do not differ significantly.

Table 2. Forage yield of Millet and Sudan Varieties
Mt. Pleasant, 1959-63

Variety	Pounds of air-dry forage per acre 1959	1960	1961	1962	1963	Comparable average 1960-63
PAG 34				2420	2840	2610
Kow Kandy					2800	2430
Hay Grazer					2800	2430
Rhod. x Stoneville Syn.					2700	2330
Grazer W			940	2150	2770	2320
Sweet Sioux					2630	2260
Sudax 11	2610		780	1970	2920	2250
Trudan					2590	2220
PAG 35				1850	2400	2110
Piper	2070	3320	680	1560	2660	2060
Suhi-1				1970	2150	2040
Greenleaf	1740	3150	720	1430	2420	1930
Sweet 372	1760	2680	730	1520	2210	1790
(Okla.) Piper x S. Prop.		2740	700	1590	2060	1770
Sorghum almum	2340		790		1800	1670
Stoneville Synthetic[1/]	1940	2760	760	1430	1710	1670
Stoneville Selection	1740		740		1550	1520
Tennessee Synthetic #1				1380	1500	1420
Perennial Sweet	2070	1850	670		1980	1390
Lahoma	1940	2040	600			1340
Duet					1680	1310
LSD (.05)	800	510	100	470	760	
C.V. (%)	24.4	30.5	11.6	30.1	31.7	
No. of cuttings	3	4	2	3	3	

1/ Stoneville Synthetic No. 2 substituted in 1963.

Performance of Sudangrasses and Pearl Millets at McGregor, 1962-63

Variety of Cross	Acre yield of hay, pounds		
	1962	1963	Comparable average
PAG 34		9295	9371
Golden-Sue		8490	8566
1851		8300	8376
T.E. Haygrazer	7580	8372	7976
Grazer		7769	7845
Sweet Sioux	7461	8121	7791
Hy Su	7539	7885	7712
Leafy Sue		7582	7658
Su-Sorg.		7530	7606
PAG 35		7526	7602
Kow Kandy		7196	7272
Sudax 11	7717	6741	7229
Duet		6949	7025
Su-Graze	7049	6735	6892
H3		6596	6672
Su Hi	6759	6475	6617
Trudan		6290	6366
Sorghum Almum	6670	5738	6204
Advance 1041G		5976	6052
Piper	5536	5923	5730
Greenleaf	5243	5335	5289
Sweet Sudan 372	5290	4734	5012
Stoneville Synthetic	5494	4291	4892
Perennial Sweet Sorgrass	5130	3700	4414
Common Sudan	3998		3921
Johnsongrass	3148		3077
Gahi Pearl Millet		3528	3604
Common Pearl Millet		3169	3245
Star Pearl Millet		2469	2545

NAME OF TEST: Sorghum silage variety test, A&M Plantation, 1963

OBJECTIVES: To determine the yield of several sorghum hybrids in comparison with standard varieties and to study agronomic characteristics of the various varieties and hybrids.

EXPERIMENTAL PROCEDURES:

Experiment No.: 4082-01

Location: A&M Plantation near College Station

Soil type: Miller clay

Cultural practices: Planted on April 16 in plots consisting of three 40-inch rows, 20 feet long, 5 replications. Fertilized with 48-48-48 prior to planting. Watered as necessary to maintain adequate moisture for growth, 2 irrigations used in 1963.

Source of seed: See listing at beginning of section.

Yield data: Each variety or hybrid was harvested in the medium dough stage when this could be determined. Heads of some of the late entries formed poorly and did not mature normally.

RESULTS: See tables

DISCUSSION: Green yields varied from 16.0 to 36.9 tons per acre. Yields were about average according to the period of years averages. The entries requiring about 90 to 110 days to reach harvest stage and producing 25 to 35 tons were the most promising in this test. There was approximately 3/4 inch of rain with some wind on June 16. Considerable lodging occurred in some plots. Notes were made on June 21. Lodging was not consistent in all plots of a variety. Some lodging was evident in all plots of 92F and in 4 of 5 plots of F.S. 22 and 1071 FE. Three plots of Crop Guard lodged to some extent and two plots of Tracy. In general, any variety receiving an average rating of more than 2.0 had considerable lodging in three or more of the five replications.

Yield of sorghum varieties and hybrids, A&M Plantation, 1963

Variety or hybrid	Green tons/acre	Dry tons/acre	Per cent moisture	Days to maturity	Lodging[1/]
Milk Maker	36.9 a	8.3 abc	77.4	99	1.0
Sart	35.6 a	9.5 a	73.4	121	1.0
Beef Builder T	35.3 ab	9.2 ab	74.3	115	1.2
Honey	34.5 abc	7.9 efg	80.2	99	1.2
FS 22	33.6 abcd	5.1 hij	84.9	71	3.4
Aztec	31.2 cde	7.9 bcde	74.6	98	1.0
Yield Maker	30.4 de	8.1 abcd	73.2	115	1.0
Beef Builder R	30.1 de	8.3 abcd	72.5	115	1.0
115 F	29.4 ef	8.1 bcde	72.5	115	1.0
Tracy	28.9 ef	4.4 jk	84.8	71	2.0
101 F	28.3 efg	7.3 cdef	74.3	98	1.0
1071 FE	28.2 efg	5.2 hij	81.5	71	2.4
92 F	25.7 fgh	4.4 jk	82.6	71	3.4
Crop Guard	25.3 fgh	4.6 ijk	81.7	71	2.2
Silo King	24.3 ghi	6.2 fgh	73.9	99	2.0
Dairy D	24.0 hi	5.9 ghi	75.3	85	1.6
H 6160	23.8 hi	6.4 fgh	73.3	84	1.8
1088 FE	22.7 hi	7.0 defg	69.5	98	1.4
3 Little Indians	22.6 hi	5.2 hij	76.7	84	1.2
77 F	22.4 hi	5.4 hij	75.9	84	1.4
Hi Hegari	20.9 ij	3.4 k	83.2	71	1.8
Atlas	20.4 ijk	4.4 jk	78.1	99	1.2
FS 1A	17.0 kl	4.6 ijk	72.7	84	1.0
Texas 34 Corn	16.0 l	4.1 jk	73.9	84	1.0

[1/] Lodging ratings: 1 = none, 2 = few plants, 3 = short sections of row, 4 = half or more of plot, 5 = almost complete lodging

Table 2. Green and dry yield of sorghum varieties and hybrids, A&M Plantation, 1959-63

Variety	Tons per acre 1959 Green	1959 Dry	1960 Green	1960 Dry	1961 Green	1961 Dry	1962 Green	1962 Dry	1963 Green	1963 Dry	Comparable average Green	Comparable average Dry
Honey	34.1	6.4	41.8	5.8	20.2	5.3	23.7	4.7	34.5	7.0	30.9	5.8
Milk Maker							22.1	6.0	36.9	8.3	30.5	7.3
Sart	34.8	8.0	36.4	9.2	16.9	5.0	25.0	5.4	35.6	9.5	29.7	7.4
Beef Builder	30.4	8.7	39.8	7.6	20.0	6.2	25.7	6.8			29.7	7.5
Wiley			34.0	10.4	21.8	7.5					29.0	9.2
FS 22	29.0	6.6			21.1	5.7	23.5	5.9	33.6	5.1	28.2	6.0
Yieldmaker							21.8	6.3	30.4	8.1	27.1	7.4
Tracy	29.2	6.2	31.7	7.0	20.8	5.1	20.7	4.9	28.9	4.4	26.3	5.5
Haygrazer							19.6	4.9			24.3	5.8
Crop Guard							19.3	4.3	25.3	4.6	23.3	4.6
Kow Kandy							18.1	4.3			22.8	5.2
Silo King	25.2	5.5	26.9	5.5	16.7	3.6	20.0	5.1	24.3	6.2	22.6	5.2
FS 1A	27.0	6.9			14.4	4.0	19.8	5.0	17.0	4.6	20.9	5.3
Atlas	26.5	5.9	20.9	3.9	16.5	4.4	16.6	3.8	20.4	4.4	20.2	4.5
Hi Hegari	22.8	5.7			12.9	2.4			20.9	3.4	19.1	3.7
Beef Builder T									35.3	9.2	32.5	8.6
Aztec									31.2	7.9	28.4	7.3
Beef Builder R									30.1	8.3	27.3	7.7
115 F									29.4	8.1	26.6	7.5
101 F									28.3	7.3	25.5	6.7
1071 FE									28.2	5.2	25.4	4.6
92 F									25.7	4.4	22.9	3.8
Dairy D									24.0	5.9	21.2	5.3
H 6160									23.8	6.4	21.0	5.8
1088 FE									22.7	7.0	19.9	6.4
3 Little Indians									22.6	5.2	19.8	4.6
77 F									22.4	5.4	19.6	4.8
Texas 34 Corn									16.0	4.1	13.2	3.5
LSD (.05)	4.1	1.9	5.5	1.8	4.6	1.5	N.S.	1.5	1.8	0.6		
C.V.	8.0	12.2	14.0	20.9	14.4	26.4	21.6	22.6	10.7	15.2		

NAME OF TEST: Silage sorghum variety evaluation test, 1963
OBJECTIVES: To try to ascertain the characteristics of Sorghum varieties and hybrids that would be best adapted for South Texas conditions through relative forage-production characteristics.
EXPERIMENTAL PROCEDURE:
Experiment No: 4035-03
Location: Substation No. 1, Beeville
Soil type: Clareville sandy clay loam
Experiment design: Randomoized block, 4 replications, 2-row plots (38" x 40' long)
Crop management: Test planted in March. Seeding rate was 8 pounds per acre. No irrigation was applied. The entire growing period was extremely dry. Only 3.16 inches of rainfall between January 1 and June 1.
RESULTS: See tables
PROJECT: 1240
DATE SUBMITTED: October, 1963
WORKER: Billy Conrad

Table 1. Sorghum silage variety evaluation, Beeville, 1963

Variety	Green yield (tons/acre)	Per cent moisture	Dry yield (tons/acre)
Yield Maker	8.3 ab	71.5	2.4 a
3 Little Indians	6.8 ab	65.6	2.4 a
Beef Builder T	7.9 ab	71.6	2.3 a
Silo King	8.1 ab	73.1	2.2 a
Sart	8.5 a	74.8	2.2 a
Dairy D	6.8 ab	68.7	2.1 a
Brawley	6.8 ab	69.2	2.1 a
Atlas	8.0 ab	73.9	2.1 ab
Tracy	7.8 ab	74.9	2.0 abc
Crop Guard	6.7 ab	71.3	1.9 abc
Milk Maker	6.5 ab	71.2	1.9 abc
FS-1A	5.4 ab	67.3	1.8 abc
FS-22	6.5 ab	73.0	1.8 abc
Honey	6.3 ab	74.2	1.6 abc
Wiley	4.9 b	75.2	1.2 c
C.V. (%)	28.0		25.2

Yield values with a common letter designation do not differ significantly at the .05 level of probability.

Forage yield of sorghum varieties and hybrids grown for silage
Beeville, 1959-63

Variety	1959		1960		1961		1962		1963		Comparable average 1960-63	
	Green	Dry	Green	Dry	Green	Dry	Green	Dry	Green	Dry	Green	Dry
Beef Builder[1/]			7.6	3.3	11.7	4.4	11.8	3.9	7.9	2.3	9.8	3.5
Yield Maker							10.6	3.9	6.8	2.4	8.9	3.5
3 Little Indians							6.4	2.3	6.8	2.4	8.2	3.4
Milk Maker							12.4	4.1	6.5	1.9	9.6	3.3
Sart	13.9	7.0	7.6	2.8	12.2	4.9	7.6	2.7	8.5	2.2	9.0	3.2
Honey	10.6	5.1	8.9	3.7	12.3	3.8	11.6	3.8	6.3	1.6	9.8	3.2
FS 22					9.2	3.0	11.7	4.6	6.5	1.8	8.6	3.1
Dairy D									6.8	2.1	8.2	3.1
Sourless	6.0	3.2	7.0	3.0							8.6	3.1
Wiley			8.6	3.8	9.3	3.5			4.9	1.2	8.0	3.0
Tracy	5.5	3.7	7.4	3.6	9.1	3.0			7.8	2.0	8.5	3.0
Silo King			6.6	2.9	7.8	2.6	9.7	3.7	8.1	2.2	8.0	2.9
Crop Guard									6.7	1.9	8.1	2.9
Brawley					6.9	2.8	6.8	3.3	6.8	2.1	6.3	2.7
Atlas	8.9	4.3	6.0	2.4	7.6	2.2	9.6	3.6	8.0	2.1	7.8	2.6
FS 1A					7.4	2.6	5.7	2.0	5.4	1.8	5.6	2.1
Sumac	6.4	3.1			6.8	2.2	6.7	2.4			5.3	1.8
Hegari (Regualr)	4.8	2.6	4.0	1.7	6.0	2.2					4.9	1.7
LSD (.05)							1.6		2.8	.7		
CV (%)							13.5		28.0	25.2		

1/ Beef Builder T in 1963

NAME OF TEST: The yield of sorghum hybrids and varieties for silage at Tyler, 1963.

OBJECTIVES: To determine the yielding ability of several new sorghum hybrids in comparison with standard varieties.

EXPERIMENTAL PROCEDURE:

~~Experiment No: 4035-01~~

Location: Substation No. 2, Tyler, Texas

Soil type: Bowie fine sandy loam

Cultural practices:

Date planted: April 11, 1963

Fertilizer: 25-50-25 at planting; 67-0-0, May 24, 1963

Harvested: July 30, 1963

Plot size: Planted 4 rows, 30 feet long
Harvested 2 rows, 30 feet long

General conditions: Soil moisture deficit reduced yields considerably.

RESULTS: See tables

PROJECT: State 1240

DATE SUBMITTED: October, 1963

WORKER: P. R. Johnson

Table 1. Forage yield and agronomic characteristics of sorghum hybrids and varieties grown for silage at Tyler, 1963

Variety or hybrid	Green[1/] tons/acre	Dry[1/] tons/ acre	Per cent moisture	70 % Moisture per/acre	Days to full bloom	Plant[1/] height (feet)
FS 22	11.1 ab	3.2 a	70.3	11.0	79	7.25 a
92 F	8.6 bcde	3.3 a	62.4	10.9	68	6.50 def
101 F	10.1 abcd	3.2 a	69.0	10.7	85	5.62 g
Beef Builder R	11.9 a	3.2 a	73.6	10.5	94	6.75 cdef
115 F	11.3 ab	3.2 a	72.0	10.5	90	6.75 bcd
HO-K	11.9 ab	3.0 a	73.6	9.9	83	7.50 abc
3 Little Indians	8.3 bcde	3.0 a	64.2	9.8	71	7.75 ab
Dairy D	8.9 abcde	2.9 a	67.5	9.6	76	6.37 defg
Yield Maker	10.3 abc	2.9 a	72.8	9.6	88	7.25 abcd
Beef Builder T	11.9 ab	2.9 a	74.3	9.5	96	7.00 bcd
Crop Guard	8.9 abcde	2.8 a	68.6	9.5	79	6.87 cde
77 F	7.2 cdef	2.6 a	63.4	8.6	70	7.62 abc
Tracy	10.3 abc	2.5 a	76.8	8.4	89	6.87 cde
Milk Maker	9.8 abcde	2.3 a	76.3	7.7	87	6.75 cdef
FS 1A	4.7 f	2.1 a	55.4	7.1	77	4.50 h
Atlas	6.7 ef	2.1 a	69.3	6.8	83	6.00 fg
C.V. (%)	20.1	30.0				7.8

[1/] The values within the column having the same letter do not differ at the 5% level of probability.

Table 2. Green and dry yield of sorghum varieties and hybrids grown for silage at Tyler, 1958-63

Variety	Green tons per acre						Dry tons per acre					
	1958	1959	1960	1961	1962	1963	1958	1959	1960	1961	1962	1963
Beef Builder	31.0	16.2	20.9	23.3	15.9		7.4	4.0	4.5	5.3	3.1	
Sart	27.6	15.0	18.6				5.2	3.9	3.0			
Hi-hegari	20.1	5.6	15.3				4.8	1.3	3.6			
DeKalb FS-1A	18.8	9.1		14.3	7.1	4.7	4.3	2.4		3.4	1.9	2.1
Atlas	21.1	9.6	15.4	16.2	8.4	6.7	4.6	2.1	3.2	3.5	1.8	2.1
Honey	25.6	13.1	22.6				4.4	2.2	3.7			
Silo King	20.1	10.5	15.2				4.6	3.0	3.6			
Tracy	19.6	11.2	16.0			10.3	3.3	2.2	2.9			2.5
Lindsey 115F				23.0	16.8	11.3				5.0	3.5	3.2
NK 320				22.8	13.2					4.5	2.8	
NK 300				21.0	11.9					4.7	3.1	
FS-22		14.4	17.7	16.6	10.8	11.1		3.2	3.8	4.4	2.2	3.2
Lindsey 101F				18.9	11.8	10.1				4.1	2.6	3.2
Brawley				15.9	5.7					3.8	1.5	
Lindsey 92F				15.9	10.3	8.6				4.0	2.4	3.3
Wiley			17.4	15.6					3.1	2.8		
NK-145				12.0	7.7					3.4	2.6	
HO-K					14.3	11.9					3.0	3.0
3 Little Indians					10.4	8.3					2.7	3.0
Crop Guard					10.0	8.9					2.4	2.8
Beef Builder R						11.9						3.2
Beef Builder T						11.9						2.9
Dairy D						8.9						2.9
Yield Maker						10.3						2.9
Lindsey 77F						7.2						2.6
Milk Maker						9.8						2.3

1964 Av. 62, 63, 64

1.6 1.86 8
1.4 1.77 9
1.4
2.3 — 3.0 1
2.0 — 2.46 5
1.6 — 2.46 6
1.6 — 2.43 7
2.3 — 2.76 2
2.0 — 2.57 3
2.2 — 2.47 4
1.7
1.6
2.2
2.1
22.

Aztec 2.2
Titan R 2.1
Red top Kandy 2.2
Gold maker 1.9
Silo maker 1.7
King 2.0
NK 320 2.1
NK 330 1.5

NAME OF TEST: Sorghum silage variety test
Location: Substation No. 5, Temple, Texas
Soil type: Houston clay

Table 1. Results of forage sorghum variety test, Temple, Texas, 1963

Variety	Pounds per acre air dry forage		
	1st clipping July 24	2nd clipping October 29	Total
Beef Builder R	8380	285	8565
Beef Builder T	8020	270	8290
Sart	7945	250	8195
Milk Maker	7060	650	7710
Aztec	6960	300	7260
Lindsey 115F	6595	400	6995
Yield Maker	6660	260	6920
FS 22	6165	575	6740
Honey	6565	145	6710
Tracy	6020	85	6105
H 6160	5700	365	6065
Red Top Kandy	5760	240	6000
Lindsey 101F	5615	370	5985
Crop Guard	5420	320	5740
1088 FE	5210	280	5490
Dairy D	5210	250	5460
Lindsey 92F	5010	220	5230
Silo King	4915	225	5140
Lindsey 77F	4760	300	5060
Atlas	4780	240	5020
3 Little Indians	4605	400	5005
1071 FE	4720	185	4905
FS 1A	4470	245	4715
L.S.D.	775	N.S.	

Followed cotton

PROJECT: 1240
WORKER: E. C. Cook
YEAR: 1963

NAME OF TEST: Sorghum silage variety test, Prairie View, 1963
OBJECTIVES: To determine the yield of several sorghum hubrids in comparison with standard varieties and to study agronomic characteristics of the various varieties and hybrids.
EXPERIMENTAL PROCEDURE:
Experiment No: 4081-01
Location: Prairie View A&M College
Soil type: Hockley fine sand
Cultural practices: Planted April 11, 1963 in plots consisting of three 40-inch rows, 20 feet long, 6 replications, fertilized with 20-40-40 prior to planting.
Yield data: Each variety was harvested in the soft to medium dough stage. Stands were somewhat variable because of poor moisture conditions at the time of planting.
RESULTS: See tables
DISCUSSION: Yields were below average in 1963 because of poor moisture conditions, especially in the spring. Those varieties which required approximately 100 days to reach the medium dough stage produced more than shorter season varieties.
PROJECT: 1240
WORKER: O. E. Smith
DATE SUBMITTED: March, 1964

Table 1. Yield of sorghum varieties and hybrids grown for silage
Prairie View, 1963

Variety	Green yield (tons)	Dry yield (tons)	Per cent moisture	Days to harvest
Beef Builder R	22.2 a	5.7 a	74.3	98
Sart	21.8 ab	4.2 bcd	80.1	98
115 F	21.3 abc	5.4 ab	74.8	98
Beef Builder T	21.1 abc	4.7 abc	77.5	
Honey	18.2 abcd	3.6 cdef	80.4	98
Yiled Maker	17.9 abcde	4.2 bcd	75.9	98
FS 22	17.1 bcdef	4.5 bcd	73.5	98
Milk Maker	16.9 bcdefg	4.1 bcde	75.3	98
Tracy	16.4 cdefgh	3.8 cde	77.4	98
Crop Guard	15.3 defghi	4.1 bcde	73.1	98
1088 FE	15.1 defghi	4.2 bcde	72.1	98
101 F	14.8 defghi	3.8 cde	73.5	98
Aztec	13.9 defghij	2.4 fghi	83.1	78
1071 FE	13.7 defghij	3.4 defg	75.2	98
Silo King	13.6 defghij	3.3 defg	75.4	98
3 Little Indians	12.8 efghij	2.9 efgh	77.2	78
Dairy D	11.9 fghij	2.9 efgh	75.5	98
77 F	11.6 hij	3.7 cdef	68.3	98
H 6160	11.5 hij	3.5 cdefg	68.9	98
92 F	10.7 ijk	2.3 ghi	78.6	78
Atlas	9.0 jk	1.8 hi	78.5	98
FS 1A	6.2 k	1.3 i	79.0	78
C.V. (%)	24.9	26.5		

Table 2. Yield of sorghum varieties and hybrids grown for silage, Prairie View, 1959-63

Variety	Tons per acre 1959 Green	1959 Dry	1960 Green	1960 Dry	1961 Green	1961 Dry	1963 Green	1963 Dry	Comparable average Green	Comparable average Dry
Honey	31.2	7.0	26.6	3.5	21.4	5.4	18.2	3.6	26.9	4.9
Sart	30.1	5.9	30.1	7.5	25.3	7.2	21.8	4.2	26.8	6.2
Beef Builder	24.6	6.7	30.9	5.9	24.0	7.6			25.0	6.4
Wiley			19.6	3.7	25.0	7.7			22.0	5.8
FS 22	19.8	5.4	19.9	4.5	21.1	5.2	17.1	4.5	19.5	4.9
Tracy	22.2	6.1	22.0	4.2	15.8	3.7	16.4	3.8	19.1	4.5
Silo King	20.7	5.6	14.2	3.0	16.0	3.8	13.6	3.3	16.1	3.9
Atlas	21.3	5.6	10.3	2.0	17.8	4.1	9.0	1.8	14.6	3.4
Hi-Hegari	20.0	5.4			11.9	3.0			13.8	3.4
FS 1A	18.8	6.0			12.2	2.9	6.2	1.3	12.4	3.2
Regular Hegari			10.3	2.1	12.5	3.3			11.1	2.8
Beef Builder R							22.2	5.7	26.7	6.8
115 F							21.3	5.4	25.8	6.5
Beef Builder T							21.1	4.7	25.6	5.8
Yieldmaker							17.9	4.2	22.4	5.3
Milkmaker							16.9	4.1	21.4	5.2
Crop Guard							15.3	4.1	19.8	5.2
1088 FE							15.1	4.2	19.6	5.3
101 F							14.8	3.8	19.3	4.9
Axtec							13.9	2.4	18.4	3.5
1071 FE							13.7	3.4	18.2	4.5
3 Little Indians							12.8	2.9	17.3	4.0
Dairy D							11.9	2.9	16.4	4.0
77 F							11.6	3.7	16.1	4.8
H 6160							11.5	3.5	16.0	4.6
92 F							10.7	2.3	15.2	3.4
LSD (.05)			6.3		5.3	1.4	2.2	0.6		
C.V. (%)			23.2		21.4	21.9	24.9	26.6		

Summary of silage forage sorghums at McGregor, Texas 1960-63

Variety or strain	Acre yield, pounds				Comparable average[1]	
	1960	1961	1962	1963	Air-dry[2]	Silage[3]
Beefbuilder-T				9,594	13,117	22,955
Beefbuilder		14,918	10,228		13,078	22,886
Milkmaker			10,951	8,316	12,994	22,740
N.K. 330			9,578		12,775	22,356
Beefbuilder - R				8,865	12,388	21,679
115 F				8,741	12,264	21,462
Redtop Kandy				8,564	12,087	21,152
Aztec				8,460	11,983	20,970
101 F				8,404	11,927	20,872
F.S. 22		14,463	7,786	8,580	11,788	20,629
H6160				8,175	11,698	20,472
Sart	17,586	13,973	8,365	6,638	11,640	20,370
92F				8,103	11,626	20,346
Tracy	16,371	13,597	7,335	8,620	11,481	20,092
Yieldmaker T.E.	13,762		9,656	8,757	11,454	20,044
1071 F.E.				7,848	11,371	19,899
Northup King 300	13,877	13,476	8,845	8,584	11,206	19,610
Crop Guard			7,138	7,577	10,718	18,756
1088 F.E.				6,956	10,479	18,338
Silo King		12,478	6,347	7,580	10,313	18,048
3 Little Indians			6,831	6,867	10,209	17,866
Wiley	14,146		7,498		10,154	17,770
Dairy D				6,608	10,131	17,729
PAG No. 2				6,435	9,958	17,426
F.S. 1A		11,432	6,072	6,778	9,605	16,809
Hi Hegari		11,389			9,203	16,105
N.K. 135				5,468	8,991	15,734
Atlas	13,021	11,520	5,756	4,405	8,676	15,183
Sumac Sargo		8,846		6,612	8,398	14,696
Northup King 145	12,054	7,655			6,495	11,366
Regular Hegari	8,967	10,085			6,166	10,790
Early Hegari		6,942			4,756	8,323

1/ The comparable average is used to minimize seasonal effects on varieties grown less than four years.
2/ Air dry yields averaged 25% moisture.
3/ Silage calcualted at 70% moisture.

NAME OF TEST: Evaluation of forage sorghum varieties at Mt. Pleasant, 1963.
OBJECTIVE: To determine the adaptability and yield of sorghums in this area.
EXPERIMENTAL PROCEDURES:
Experiment No.: 4035-02
Location: D. C. Henson farm, Mt. Pleasant
Source of materials: Dr. E. C. Holt
Experiment design: (a) Randomized, 4 replications; (b) Plot size: 4 rows planted 40 inches apart, 30 feet long, area clipped for yield, 2 center rows 20 feet long.
CROP MANAGEMENT PRACTICES:
Planted: May 11, 1963
Fertilized: 30-60-60, May 8, 1963
Top dressed: 30-0-0, June 10, 1963
GENERAL: The weather conditions during the growing season were below normal. Moisture was limited near the end of the growing period. Total rainfall was 14.36 inches.
PROJECT: State 1240
DATE SUBMITTED: November, 1963
WORKER: J. A. Lancaster

Table 1. Evaluation of forage sorghum varieties, Mt. Pleasant, 1963

Variety	Green yield (tons/acre)	Air dry yield (tons/acre)	Days from planting to harvest
Lindsey 115F	35.6 a	10.7 a	105
Beef Builder R	31.6 abc	10.5 ab	108
Beef Builder T	32.9 ab	10.5 ab	108
Yield Maker	32.6 ab	10.0 abc	107
Lindsey 101F	33.9 ab	9.9 abcd	105
Tracy	28.4 abcd	9.5 abcde	105
1088FE	30.9 abc	9.4 abcdef	80
Aztec	29.5 abcd	8.8 abcedfg	105
FS 1A	31.1 abc	7.7 bcdefgh	88
Sart	29.8 abcd	7.7 bcdefgh	---
Milk Maker	26.3 bcdef	7.2 cdefgh	107
H 6160	26.8 bcde	7.0 efgh	80
FS 22	28.8 abcd	6.9 efgh	88
1071 FE	32.0 abc	6.8 efgh	80
Dairy D	28.9 abcd	6.6 efgh	80
Atlas	28.4 abcd	6.5 efgh	88
Honey	24.9 cdef	6.5 fgh	107
Lindsey 77F	22.9 def	6.1 gh	80
Lindsey 92F	27.3 bcd	5.8 gh	80
Crop Guard	24.7 cdef	5.3 h	80
Silo King	23.1 def	5.0 h	73
3 Little Indians	19.3 f	4.7 h	73
C.V. (%)	15.6	31.4	

Total yield values with a common letter designation do not differ significantly at the .05 level of probability.

Table 2. Evaluation of forage sorghum varieties
Mt. Pleasant, 1959-63

Variety	1959		1960		1962		1963		Comparable average	
	Green	Dry	Green	Dry	Green	Dry	Green	Dry	Green	Dry
Lindsey 115F							35.6	10.7	30.3	10.4
Lindsey 101F							33.9	9.9	28.6	9.6
Beef Builder T							32.9	10.5	27.6	10.2
1071 FE							32.0	6.8	26.7	6.5
Beef Builder	22.8	16.6	27.6	8.5	23.8	6.8			26.5	10.7
Beef Builder R							31.6	10.5	26.3	10.2
Sart	20.0	14.4	27.7	7.7	24.8	5.3	29.8	7.7	25.6	8.8
1088 FE							30.9	9.4	25.6	9.1
Yield Maker					22.5	6.3	32.6	10.0	25.6	9.3
Honey	19.7	11.3	31.2	7.7			24.9	6.5	24.8	7.7
Aztec							29.5	8.8	24.2	8.5
Dairy D							28.9	6.6	23.6	6.3
Milk Maker					24.0	5.7	26.3	7.2	23.2	7.6
Lindsey 92F							27.3	5.8	22.0	5.5
FS 22	15.5	9.1			18.7	4.4	28.8	6.9	21.5	6.5
Tracy	14.1	7.1	20.6	5.8	20.1	4.5	28.4	9.5	20.8	6.7
Wiley			21.2	5.4	20.1	4.4			20.5	6.7
Crop Guard					18.3	5.1	24.7	5.3	19.6	6.3
FS 1A	10.6	4.5			14.5	3.9	31.1	7.7	19.2	5.0
Silo King	13.3	6.9	22.2	5.9	17.6	5.2	23.1	5.0	19.1	5.8
Atlas	10.0	5.3			17.5	4.3	28.4	6.5	19.1	5.0
Lindsey 77F							22.9	6.1	17.6	5.8
Kow Kandy					15.7	4.7			17.1	7.2
Hi-hegari	11.2	5.6							16.7	2.3
3 Little Indians					17.7	6.4	19.3	4.7	16.6	6.7
LSD			4.6	1.2	3.5	1.1	6.3	2.5		
C.V. (%)			13.8	12.9	12.9	15.3	15.6	31.4		