

Mississippi
Warm-Season
FORAGE CROP



VARIETY TRIALS, 2012



MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION • GEORGE M. HOPPER, DIRECTOR
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This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station. Joint sponsorship by the organizations listed on page 10 is gratefully acknowledged.

Trade names of commercial and public varieties tested in this report are included only for clarity and understanding. All available names (i.e., trade names, experiment code names or numbers, chemical names, etc.) and varieties, products or source seed in this research are listed on page 10.

Mississippi Warm-Season Forage Crop Variety Trials, 2012

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Mississippi Warm-Season Forage Crop Variety Trials, 2012

INTRODUCTION

Varieties of forage crops are evaluated every year in MAFES small-plot trials. Seed for the entries are provided by seed companies and state universities and tested at one or more locations across Mississippi. All entries from privately owned companies are tested on a fee basis. Standard varieties may be added by MAFES as a reference for comparison purposes. In addition, varieties of interest may also be added when applicable. This report contains data collected in 2012 from warm-season perennial and annual forage crops. Seeded bermudagrass yields include 2 years of data from 18 varieties. Annual warm-season grass entries include four crabgrass and four teffgrass varieties in addition to 15 varieties of sorghum, sudangrass, sorghum/sudangrass hybrids, and pearl millet. In Poplarville, the crabgrass and teffgrass trial was abandoned to poor germination and native weed pressure. Seeded bermudagrass trials were only evaluated in Starkville. Sorghum and sudangrass trials were successful for data collection in Starkville, Holly Springs, and Poplarville. Quality data is available for the summer annuals but not for the bermudagrass trial. Seeding rates for each trial are listed in Table 1 and were adjusted for pure live

Species	Seeding rate
	<i>lb/A PLS¹</i>
Bermudagrass	10
Crabgrass	10
Pearl millet	35
Sorghum	20
Sorghum Sudan	35
Teffgrass	10

¹Rates listed are the recommended seeding rates used to calculate pure live seed (PLS) for each entry.

seed (PLS) according to each entry germination and purity percentage.

Data presented in Tables 3-14 can be used to evaluate the performance of each forage variety within that test. Comparisons can be statistically evaluated by using the least significant difference (LSD). The LSD represents the amount of yield that must be observed between any two varieties to determine if the differences observed were due to variety variation alone.

Month	Starkville	Holly Springs	Poplarville	Mean	30-yr. avg.
	<i>in</i>	<i>in</i>	<i>in</i>	<i>in</i>	<i>in</i>
April	3.74	3.71	1.90	3.12	4.87
May	3.30	3.72	1.93	2.98	3.99
June	2.84	2.07	5.22	3.38	5.45
July	9.34	2.35	10.83	7.51	3.34
August	7.76	2.20	4.89	4.95	3.64
September	5.36	5.09	5.70	5.38	3.28
October	4.91	5.46	2.57	4.31	4.95

SEEDED BERMUDAGRASS VARIETY TEST 2011–12

Background

Bermudagrass is extremely drought tolerant and can be planted throughout the state. Seeded bermudagrass should be planted between March and May at a seeding rate of 5 to 10 pounds per acre. Bermudagrass is best adapted to sandy soils. Nitrogen and potassium fertilization are essential for high yields, especially for hay production. Ammonium nitrate (34-0-0) has been the fertilizer of choice for bermudagrass during summer months, but its availability has become limited due to regulations by the Department of Homeland Security. Urea ammonium sulfate is the N fertilizer available to Mississippi’s livestock producers for hay and pasture. The new 33-0-0 is a blend of urea and ammonium sulfate that should be just as effective as ammonium nitrate in most situations. These yield results can differ from location to location in the state. There are a great number of seeded blends available for planting. Most producers have the notion that these blends usually “revert back to common bermudagrass.” This belief is not surprising given the nature of blends. In this situation, it is not a case of the variety suddenly, or even gradually, turning into common bermudagrass. Rather, it is the common bermudagrass already present in the blend gradually replacing the other varieties, due to its greater persistence.

Protocol

The experimental design was a randomized complete block with four replications. Plots were 6 feet by 11 feet in size with 5-foot alleys between plots and 10-foot alleys between blocks. The study was initially planted on June 4, but because of poor germination, it was replanted on July 13, 2011. Initial fertilizer application was 335 pounds of 15-5-10 at planting date. Nitrogen was applied after each harvest at a rate of 50 pounds of N per acre using urea-ammonium sulfate (33-0-0S). Plots were harvested when more than 50% of the plots had reached a forage height of 12–15 inches

or every 4–5 weeks, depending on environmental conditions. Plots were harvested with a “Zero Turn” mower to a 3-inch stubble height and 52-inch swath. Yields were recorded, and subsamples were collected for dry matter analysis. Data were analyzed using the General Linear Model (PROC GLM) of SAS, and mean separation was conducted using the LSD at $\alpha = 0.05$. Table 3 presents 2011 and 2012 dry matter yields of seeded bermudagrass varieties, while Table 4 presents yields by harvest in 2012.

Table 3. 2011–12 Seeded bermudagrass total annual dry matter yields in Starkville.¹

Variety	Years	
	2011	2012
	<i>lb/A</i>	<i>lb/A</i>
Amarillo King	3586	9873
Buckaroo	3979	10881
Cheyenne II	3612	9334
Common	3725	10619
Cowboy	3426	10054
Highlander	2379	10880
KF-1M	3204	9819
KF-2M	3990	11716
Laredo	3410	9975
Mohawk	3163	9739
Numex Sahara	3201	10293
PST-R6P0	1267	11457
PST-R6SB	2201	10300
PST-R6WL	1862	10311
Rancher	2830	9740
Ranchero Frio	3051	10374
Sungrazer +	3516	11281
Texas Tough+	4646	11488
LSD (0.05)	1315	1109
CV %	29	7
Mean	3169	10452

¹NS = Not Significant.
 Planted: June 4, 2011 (Replanted July 13, 2011).
 Fertilizer: 335 lb/A of 15-5-10 at planting; 50 lb N/A using (33-0-0) after each harvest.
 Herbicide: Pastora (nicosulfuron/metsulfuron methyl) at 2 oz/A.

Table 4. 2012 Seeded bermudagrass dry matter yields in Starkville.¹

Variety	Harvest date					Total
	5/30/12	6/27/12	7/27/12	8/27/12	10/26/12	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Amarillo King	1824	2914	2648	1927	560	9873
Buckaroo	2263	3048	2793	2209	568	10881
Cheyenne II	1430	2764	2604	1967	568	9334
Common	1981	3055	2671	2299	614	10619
Cowboy	1931	3176	2215	1980	752	10054
Highlander	2798	2897	2556	2054	575	10880
KF-1M	2185	2949	2357	1826	502	9819
KF-2M	2440	2950	2948	2581	797	11716
Laredo	1927	2590	2803	2150	504	9975
Mohawk	2307	2931	2267	1717	517	9739
Numex Sahara	1995	2875	2536	2360	527	10293
PST-R6P0	2953	2705	2550	2445	805	11457
PST-R6SB	2645	2676	2405	1941	633	10300
PST-R6WL	2618	2590	2507	2029	567	10311
Rancher	2132	2665	2327	2034	582	9740
Ranchero Frio	2342	2913	2315	2158	646	10374
Sungrazer +	2210	3028	2819	2380	845	11281
Texas Tough+	2462	3041	2423	2526	1036	11488
LSD (0.05)	610	NS	NS	452	290	1109
CV %	19	22	12	15	32	7
Mean	2247	2876	2541	2143	644	10452

¹NS = Not Significant.

Planted: June 4, 2011 (Replanted July 13, 2011).

Fertilizer: 335 lb/A of 15-5-10 at planting; 50 lb N/A using (33-0-0) after each harvest.

Herbicide: Pastora (nicosulfuron/metsulfuron methyl) at 2 oz/A.

TEFFGRASS AND CRABGRASS VARIETY TEST 2012

Background

Teffgrass is a warm-season C₄ annual grass that originated in Africa with great potential for hay production in the Southern U.S. It can be used as a summer rotation crop in fallow areas where only annual ryegrass is utilized as winter forage. Teffgrass is characterized by a small seed (about 1.3 million seeds per pound), a large crown, and fine stems (which decrease curing time when used for hay production). Its inflorescence is a loose or compact panicle. It is not recommended for grazing since it has a very shallow root system. Teffgrass should be planted in the spring after danger of frost on a firm seedbed no deeper than ¼ inch. If broadcasted, a cultipacker is recommended to encourage good seed-to-soil contact. Seasonal nitrogen requirements are relatively low, ranging from 50–70 pounds per acre. Overfertilizing with nitrogen can cause plants to lodge. Crude protein content of teffgrass hay ranges from 12–17% and total digestible

nutrients from 55–64%. The nutritive quality is comparable to timothy hay and can fill a gap in summer forage production to make excellent hay for horses and livestock. Teffgrass' greatest attribute is its growth rate; it has the potential to reach harvest maturity in less than 30 days after planting when conditions are ideal.

Crabgrass is a warm-season C₄ grass with long stolons and high reseeding ability. Crabgrass is very leafy with a tall ligule. Leaves are sparsely hairy, and the collar region has very long hairs. Seeds have three or more spikes. Crabgrass has been utilized in the South for forage production as pasture, hay, silage, and green chop. It can be double-cropped with temperate, cool-season forages, such as small grains or annual ryegrass. It is often considered a weedy grass species because of its invasive tendency, particularly into established warm-season perennial pastures subject to heavy close grazing. Crabgrass should be planted in late spring on a firm seedbed no lower than ¼ inch. To

maintain pastures, leave strips of standing crabgrass to reseed for the following year. In grazing situations, the cows should be pulled off in late summer to allow plants to mature before the first killing frost. Like bermudagrass, crabgrass responds well to nitrogen and requires a minimum of 120 pounds per acre. When harvested at the optimum maturity, crabgrass hay can have greater ruminal digestibility than bermudagrass. However, due to the poor appearance of crabgrass hay it is most commonly grazed. Many varieties of crabgrass utilized as forage are naturally occurring ecotypes.

Protocol

Teffgrass and crabgrass varieties were planted at a seeding rate of 10 pounds of PLS per acre. The experimental design was a randomized complete block with four replications. Plots were 6 feet by 11 feet in size with 3-foot alleys between plots and blocks. Tests were

planted in Starkville, Holly Springs, and Poplarville. However, the Poplarville trial never successfully established. Initial fertilizer application was 335 pounds of 15-5-10 at planting. Nitrogen was applied after each harvest at a rate of 50 pounds of N per acre using urea-ammonium sulfate (33-0-0). Plots were harvested when more than 50% of the plots had reached forage height of 12–15 inches or every 4–5 weeks, depending on environmental conditions. Plots were harvested with a “Zero Turn” mower to a 3-inch stubble height and 52-inch swath. Yields were recorded and subsamples collected for dry matter analysis. Data was analyzed using the General Linear Model (PROC GLM) of SAS and mean separation using the LSD at $\alpha = 0.05$. Tables 5 and 6 present 2012 dry matter yields collected from Starkville and Holly Springs. Subsamples were further analyzed for quality ADF, NDF, and CP using a NIR 6500 (Foss North America, Eden Prairie, Minnesota) and are expressed in Tables 7 and 8.

Table 5. 2012 Crabgrass and teffgrass yields in Starkville.¹

Variety	Harvest date		Total yield
	6/25/12	7/26/12	
	lb/A	lb/A	lb/A
Crabgrass			
NFCG07-1	1456	2172	3628
NFCG07-2	1725	1539	3264
Quick-N-Big	1436	2045	3481
Red River	1301	1889	3190
Teffgrass			
CW604	2556	2292	4847
Dessie	2072	1787	3859
F-11	2113	2180	4294
Tiffani	2262	2119	4381
LSD (0.05)	748	NS	1041
CV%	27	26	18
Mean	1865	2003	3868
¹ NS = Not Significant. Planted: May 5, 2012. Fertilizer: 335 lb/A of 15-5-10 at planting and 50 lb of N/A (33-0-0) after first harvest. Herbicide: 1 pt/A of 2,4-D amine (Dimethylamine salt of 2, 4-Dichlorophenoxyacetic acid).			

Table 6. 2012 Crabgrass and teffgrass yields in Holly Springs.¹

Variety	Harvest date		Total yield
	6/21/12	7/31/12	
	lb/A	lb/A	lb/A
Crabgrass			
NFCG07-1	2973	2514	5487
NFCG07-2	2235	3390	5624
Quick-N-Big	4716	2426	7143
Red River	2773	2596	5369
Teffgrass			
CW604	5061	2978	8039
Dessie	4047	2063	6110
F-11	3708	2434	6142
Tiffani	4098	2655	6754
LSD (0.05)	1540	NS	NS
CV%	28	22	16
Mean	3701	2632	6333

¹NS = Not Significant.

Planted: May 11, 2012.

Fertilizer: 335 lb/A of 15-5-10 at planting and 50 lb of N/A (33-0-0) after first harvest.

Herbicide: 1 pt/A of 2,4-D amine (Dimethylamine salt of 2, 4-Dichlorophenoxyacetic acid).

Table 7. 2012 Crabgrass and teffgrass nutritional quality data for Starkville.¹

Variety	Harvest date					
	6/25/12			7/26/12		
	ADF	NDF	CP	ADF	NDF	CP
	%	%	%	%	%	%
Crabgrass						
NFCG07-1	32	54	13	36	61	15
NFCG07-2	33	57	14	35	61	15
Quick-N-Big	34	57	12	37	63	14
Red River	33	55	13	37	61	14
Teffgrass						
CW604	33	59	11	36	61	14
Dessie	33	55	14	36	59	16
F-11	33	59	13	36	59	15
Tiffani	33	58	12	36	60	14
LSD (0.05)	NS	3	1.3	NS	NS	NS
CV%	2	2	4	3	2	2
Mean	33	60	13	36	61	15

¹NS = not significant; ADF = acid detergent fiber; NDF = neutral detergent fiber; and CP = crude protein.

Table 8. 2012 Crabgrass and teffgrass nutritional quality data for Holly Springs.¹

Variety	Harvest date					
	6/21/12			7/31/12		
	ADF	NDF	CP	ADF	NDF	CP
	%	%	%	%	%	%
Crabgrass						
NFCG07-1	35	35	14	35	59	16
NFCG07-2	32	32	17	37	60	16
Quick-N-Big	38	38	14	36	59	16
Red River	32	32	19	36	60	16
Teffgrass						
CW604	35	35	17	34	60	16
Dessie	35	35	16	37	61	16
F-11	36	36	14	34	59	16
Tiffani	37	37	14	34	61	16
LSD (0.05)	NS	NS	NS	NS	NS	NS
CV%	2	3	3	2	4	5
Mean	35	58	16	35	60	16

¹NS = not significant; ADF = acid detergent fiber; NDF = neutral detergent fiber; and CP = crude protein.

SORGHUM AND SUDANGRASS VARIETY TEST 2012

Background

The sorghum and sudangrass variety test includes varieties from sorghum, sudangrass, sorghum/sudangrass hybrids, and pearl millet species. Sorghum is usually only used for forage in the form of silage due to the high moisture content. It is not tolerant of acidic soils and is adapted well to sandy loam and clay loam soils with a pH ranging between 6 and 7. When harvested for silage, sorghum should be in the dough stage and can possibly be harvested twice in Mississippi if planted by May and weather conditions are ideal. Prussic acid and nitrate accumulations can occur when conditions permit. Sorghum/sudangrass hybrids and sudangrass can be used for pasture, hay, or silage production. They are very responsive to nitrogen and can be rotationally grazed with a high stocking rate to utilize rapid growth. Hay quality is the best when harvested at 30 to 40 inches. As with sorghums, prussic acid and nitrate accumulations are possible under stress. Pearl millet is the most tolerant of lower pH soils ranging from 5.5 to 7. Pearl millet is more ideal in low-input situations when compared with other summer annuals. When nitrogen is applied, it is recommended in split applications. It is very productive in pasture and silage systems but does not usually yield greater than

sorghum and sudangrass varieties in normal Mississippi conditions. However, pearl millet does respond better to more frequent harvesting or grazing.

Protocol

The experimental design was a randomized complete block with four replications. Plots were 6 feet by 11 feet in size with 3-foot alleys between plots and blocks. Tests were planted in Starkville, Holly Springs, and Poplarville. Initial fertilizer application was 335 pounds of 15-5-10 at planting. Nitrogen was applied after each harvest at a rate of 50 pounds of N per acre using urea-ammonium sulfate (33-0-0). Plots were harvested when more than 50% of the plots had reached soft dough stage. The entire plot was harvested using a Winterstieger Cibius S (Austria). Yields were recorded and subsamples collected for dry matter analysis. Tables 9–11 present 2012 dry matter yields collected from Starkville and Holly Springs. Data was analyzed using the General Linear Model (PROC GLM) of SAS and mean separation using the LSD at $\alpha = 0.05$. Subsamples were further analyzed for quality ADF, NDF, and CP using a NIR 6500 (Foss North America, Eden Prairie, Minnesota) and are expressed in Tables 12–14.

Table 9. 2012 Sorghum and sudangrass yields in Starkville.¹

Variety	Harvest date		Total yield
	6/25/12	8/14/12	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
CHR-FS4	1216	3449	4665
CHR-FS9	1202	3583	4785
CHR-SGI	1570	6029	7600
CHR-SS2	1884	5678	7562
Cowvittles II Forage Sorghum	1937	4179	6116
Forage Hybrid VNS-BMR-HFSV	1217	3210	4427
Forage King SS Hybrid	1436	3789	5225
Green Grazer V	3205	4998	8203
Hay King BMR	1937	3679	5616
Monarch V	2635	3681	6316
Pacesetter BMR	1391	3502	4894
Pearl Millet	972	4712	5684
Piper	2277	4040	6318
Promax BMR	2014	3750	5763
Sweeter 'N Honey II BMR	1234	3766	5000
LSD (0.05)	588	1223	1960
CV%	23	20	24
Mean	1742	4141	5883

¹Planted: May 5, 2012.

Fertilizer: 335 lb/A of 15-5-10 at planting and 50 lb of N/A (33-0-0) after first harvest.

Herbicide: 1 pt/A of 2,4-D amine (dimethylamine salt of 2, 4-dichlorophenoxyacetic acid).

Table 10. 2012 Sorghum and sudangrass yields in Holly Springs.¹

Variety	Harvest date		Total yield
	6/20/12	8/14/12	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
CHR-FS4	2447	3876	6323
CHR-FS9	2033	4046	6078
CHR-SGI	2385	3939	6324
CHR-SS2	2776	4503	7279
Cowvittles II Forage Sorghum	2509	4798	7307
Forage Hybrid VNS-BMR-HFSV	1785	4093	5879
Forage King SS Hybrid	2333	4252	6586
Green Grazer V	2744	5742	8485
Hay King BMR	2046	4362	6408
Monarch V	2272	4102	6373
Pacesetter BMR	2562	2517	5080
Pearl Millet	1266	4928	6194
Piper	2513	3792	6306
Promax BMR	2362	4071	6433
Sweeter 'N Honey II BMR	2488	3487	5975
LSD (0.05)	1280	1230	1952
CV%	39	20	20
Mean	2298	4167	6469

¹Planted: May 11, 2012

Fertilizer: 335 lb/A of 15-5-10 at planting and 50 lb of N/A (33-0-0) after each harvest.

Herbicide: 1 pt/A of 2,4-D amine (dimethylamine salt of 2, 4-dichlorophenoxyacetic acid).

Table 11. 2012 Sorghum and sudangrass yields in Poplarville.¹

Variety	Harvest date		Total yield
	6/28/12	8/15/12	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
CHR-FS4	1711	6362	8074
CHR-FS9	1702	4598	6300
CHR-SGI	1673	6653	8327
CHR-SS2	2807	6599	9407
Cowvittles II Forage Sorghum	1236	4782	6018
Forage Hybrid VNS-BMR-HFSV	789	3929	4718
Forage King SS Hybrid	1102	4093	5195
Green Grazer V	2272	7818	10089
Hay King BMR	1815	5178	6993
Monarch V	1143	4171	5314
Pacesetter BMR	1174	3678	4852
Pearl Millet	2381	6385	8766
Piper	1543	5402	6945
Promax BMR	1863	6204	8067
Sweeter 'N Honey II BMR	1188	4722	5910
LSD (0.05)	751	1578	1980
CV%	32	20	19
Mean	1626	5371	6998

¹Planted: May 17, 2012
Fertilizer: 335 lb/A of 15-5-10 at planting and 50 lb of N/A (33-0-0) after each harvest.
Herbicide: 1 pt/A of 2,4-D amine (dimethylamine salt of 2, 4-dichlorophenoxyacetic acid).

Table 12. 2012 Sorghum and sudangrass nutritional quality data for Starkville.¹

Variety	Harvest date					
	6/25/12			8/14/12		
	ADF	NDF	CP	ADF	NDF	CP
	%	%	%	%	%	%
CHR-FS4	35	61	11	41	69	10
CHR-FS9	36	63	11	40	70	9
CHR-SGI	36	62	12	42	70	10
CHR-SS2	36	61	12	42	69	10
Cowvittles II Forage Sorghum	37	62	10	42	70	10
Forage Hybrid VNS-BMR-HFSV	35	61	11	39	67	11
Forage King SS Hybrid	35	61	12	40	66	10
Green Grazer V	37	64	10	40	66	10
Hay King BMR	36	63	11	41	68	10
Monarch V	36	63	11	40	65	13
Pacesetter BMR	33	59	12	40	68	10
Pearl Millet	35	61	11	39	64	12
Piper	36	63	11	43	68	11
Promax BMR	36	63	12	42	68	12
Sweeter 'N Honey II BMR	35	62	11	40	68	10
LSD (0.05)	NS	NS	NS	2	3	3
CV%	3	2	9	2	2	11
Mean	36	62	11	41	68	10

¹NS = not significant; ADF = acid detergent fiber; NDF = neutral detergent fiber; and CP = crude protein.

Table 13. 2012 Sorghum and sudangrass nutritional quality data for Holly Springs.¹

Variety	Harvest date					
	6/20/12			8/14/12		
	ADF	NDF	CP	ADF	NDF	CP
	%	%	%	%	%	%
CHR-FS4	35	59	17	33	60	12
CHR-FS9	35	59	17	35	63	12
CHR-SGI	35	60	16	35	62	12
CHR-SS2	37	61	17	33	60	13
Cowvittles II Forage Sorghum	37	62	16	34	62	12
Forage Hybrid VNS-BMR-HFSV	36	59	17	35	62	13
Forage King SS Hybrid	36	60	17	34	61	12
Green Grazer V	37	61	16	34	60	12
Hay King BMR	36	60	17	38	66	11
Monarch V	36	61	17	38	65	11
Pacesetter BMR	35	58	17	35	62	12
Pearl Millet	32	55	20	35	60	14
Piper	36	60	16	38	67	11
Promax BMR	35	60	17	36	64	12
Sweeter 'N Honey II BMR	33	58	17	34	60	12
LSD (0.05)	NS	NS	NS	2	2	NS
CV%	4	3	7	3	2	7
Mean	35	60	17	35	62	12

¹NS = not significant; ADF = acid detergent fiber; NDF = neutral detergent fiber; and CP = crude protein.

Table 14. 2012 Sorghum and sudangrass nutritional quality data for Poplarville.¹

Variety	Harvest date					
	6/28/12			8/15/12		
	ADF	NDF	CP	ADF	NDF	CP
	%	%	%	%	%	%
CHR-FS4	31	56	21	40	40	12
CHR-FS9	29	52	22	40	40	13
CHR-SGI	29	55	21	38	38	12
CHR-SS2	33	60	18	40	40	12
Cowvittles II Forage Sorghum	30	55	21	38	38	13
Forage Hybrid VNS-BMR-HFSV	30	54	21	38	38	14
Forage King SS Hybrid	29	52	22	37	37	13
Green Grazer V	30	55	21	37	37	13
Hay King BMR	30	56	20	42	42	11
Monarch V	30	54	21	38	38	14
Pacesetter BMR	30	53	21	39	39	13
Pearl Millet	31	55	22	40	40	14
Piper	32	57	20	40	40	13
Promax BMR	30	54	21	38	38	13
Sweeter 'N Honey II BMR	30	52	22	37	37	14
LSD (0.05)	2	3	1	2	NS	NS
CV%	2	2	3	3	2	7
Mean	30	55	21	39	65	13

¹NS = not significant; ADF = acid detergent fiber; NDF = neutral detergent fiber; and CP = crude protein.

Table 15. 2012 Bermudagrass, sorghum/sudangrass, crabgrass, and teffgrass seed sources.

Variety	Company
Bermudagrass	
Amarillo King	Barenburg USA
Buckaroo	Amigos Genetics LLC
Cheyenne II	Pennington Seed
Common	No Source
Cowboy	Amigos Genetics LLC
Highlander	K-F Seeds
KF-1M	K-F Seeds
KF-2M	K-F Seeds
Loredo	Allied Seeds, LLC
Mohawk	Pennington Seeds
Numex Sahara	Pennington Seeds
PST-R6PO	Pure-Seed Testing, Inc.
PST-R6SB	Pure-Seed Testing, Inc.
PST-R6WL	Pure-Seed Testing, Inc.
Rancher	DLF International Seeds
Ranchero Frio	Pennington Seed
Sungrazer+	MBS Seed, LTD
Texas Tough+	East Texas Seed Company
Sorghum, Sudangrass, Pearl Millet, Sorghum/Sudan	
CHR-FS4	Chromatin, Inc.
CHR-FS9	Chromatin, Inc.
CHR-SGI	Chromatin, Inc.
CHR-SS2	Chromatin, Inc.
Cowwittle II Forage Sorghum	Farm Science Genetics
Forage Hybrid VNS-BMR-HFSV	NA ¹
Forage King SS Hybrid	Producers Choice Seed
Green Grazer V	Farm Science Genetics
Hay King BMR	King's Agriseeds
Monarch V	Cal-West Seeds
Pacesetter BMR	Richardson Seeds
Pearl Millet	Cal-West Seeds
Piper	NA
Promax BMR	Ampac Seed Company
Sweeter 'N Honey II BMR	King Seed
Crabgrass & Teffgrass	
CW604	Cal-West Seeds
Dessie	Farm Science Genetics
F-11	Mountain View Seeds
NFCG07-1	Noble Foundation
NFCG07-2	Noble Foundation
Quick-N-Big	Elstel Farm and Seeds
Red River	Elstel Farm and Seeds
Tiffani	Producers Choice
¹ NA: Source provided by MSU forage seed inventory	



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