

## 2015 WARM-SEASON ANNUAL GRASS VARIETY TRIAL

The forage cultivar evaluation program is a partnership between University of Tennessee Extension and UT AgResearch to aid producers in the selection of the best cultivars for their farm. The crop was grown using management practices considered to be the best for the crop, including fertilization according to soil test results. This study was conducted using a randomized complete block design with three replications. Least significant difference (LSD) values at the 5 percent level are shown at the bottom of each table with not significantly different represented by (NS). Within any table, yields of any two varieties being compared must differ by at least this amount to be considered different. The crop was grown using management practices considered to be the best for the crop, including fertilization according to soil test results.

**Table 1: 2015 Yield of Warm-Season Annual Grass Varieties at the Highland Rim Research and Education Center, Springfield, TN.**

Variety	Species	Yield (ton DM/acre)			
		Jun 30	Jul 28	Sep 4	Total
AF7101	Forage Sorghum	2.71	1.82	1.40	5.93
AF7102	Forage Sorghum	2.54	2.95	1.60	7.09
AF7201	Forage Sorghum	2.19	2.97	1.44	6.60
AF7202	Forage Sorghum	2.58	2.25	1.44	6.27
AF7301	Forage Sorghum	2.18	1.96	1.45	5.59
AF7401	Forage Sorghum	3.00	2.36	1.16	6.52
AF8301	Forage Sorghum	1.95	1.83	1.32	5.10
AS5201	Sorghum x Sudangrass	3.08	3.04	1.50	7.62
AS6201	Sorghum x Sudangrass	1.58	2.64	0.89	5.11
AS6401	Sorghum x Sudangrass	2.23	2.54	1.50	6.27
AS6402	Sorghum x Sudangrass	2.45	2.89	1.83	7.17
AS9301	Sudangrass	2.02	2.87	1.60	6.49
AS9302	Sudangrass	3.24	2.47	1.44	7.15
Cowvittles II	Forage Sorghum	2.38	2.06	1.52	5.96
FSG 1000 BMR	Sudangrass	2.92	3.57	1.53	8.02
FSG 114 BMR6	Forage Sorghum	2.23	3.30	1.30	6.86
FSG 115 Brachytic Dwarf BMR6	Forage Sorghum	2.17	2.20	1.31	5.68
FSG 214 BMR6	Sorghum x Sudangrass	2.36	3.56	1.90	7.82
FSG 215 BMR6	Sorghum x Sudangrass	3.07	2.34	1.56	6.97
FSG 300	Pearl Millet	2.36	2.11	1.80	6.27
FSG 315 Dwarf BMR	Pearl Millet	2.35	1.81	1.38	5.54
Greengrazer V	Sorghum x Sudangrass	1.81	2.46	1.30	5.57
LSD (P<0.05)		ns <sup>1</sup>	ns	ns	ns
* yielded statistically the same as the top-yielding variety					
<sup>1</sup> non-significant at the 0.05 level					
Nitrogen application: 60 lb/ acre at planting, 30 lb/acre after each harvest (Planted May 14, 2015)					

**Table 2: 2015 Yield of Warm-Season Annual Grass Varieties at the Highland Rim Research and Education Center, Springfield, TN- Continued.**

Variety	Species	Yield (ton DM/acre)			
		Jun 30	Jul 28	Sep 4	Total
Corvallis	Teffgrass	1.46	1.47	0.90	3.83
Dessie	Teffgrass	1.11	1.43	0.87	3.41
Quick-N-Big	Crabgrass	1.39	1.40	1.23	4.02
Red River	Crabgrass	1.30	1.54	1.16	4.00
LSD (P<0.05)		ns <sup>1</sup>	ns	ns	ns
* yielded statistically the same as the top-yielding variety					
<sup>1</sup> non-significant at the 0.05 level					
Nitrogen application: 60 lb/ acre at planting, 30 lb/acre after each harvest (Planted May 14, 2015)					

**Table 3: Mean Forage Nutritive Values.**

Species	Constituents <sup>1</sup>	Harvest Date		
		Jun 30	Jul 28	Sep 4
Forage Sorghum	CP	14.12	12.29	11.87
	ADF	35.14	33.00	34.43
	NDF	62.65	59.87	62.33
	TDN	69.38	72.53	68.14
Pearl Millet	CP	12.49	12.79	11.90
	ADF	35.68	34.62	35.51
	NDF	63.57	60.70	62.13
	TDN	69.50	68.89	64.91
Sorghum x Sudangrass	CP	13.90	11.91	11.56
	ADF	34.69	32.92	35.56
	NDF	62.74	59.54	63.84
	TDN	69.71	72.53	66.06
Sudangrass	CP	13.37	11.97	11.23
	ADF	35.97	33.53	34.85
	NDF	62.95	60.27	63.48
	TDN	68.19	72.30	69.39
		<b>Jun 23</b>	<b>Jul 16</b>	<b>Aug 13</b>
Crabgrass	CP	15.70	15.88	14.91
	ADF	38.17	37.10	34.41
	NDF	64.96	58.38	59.60
	TDN	66.64	66.38	69.56
Teffgrass	CP	15.02	16.20	16.96
	ADF	38.87	35.81	33.45
	NDF	63.52	60.44	57.19
	TDN	67.16	67.64	68.10
<sup>1</sup> CP, crude protein; ADF, acid detergent fiber; NDF, neutral detergent fiber; TDN, total digestible nutrients (Analysis performed using Near Infrared Spectrometer [NIRS] Technology) Target stage of growth for harvest was mid-boot.				

**Table 5: Supplier Information**

Variety	Species	Supplier	Commercially Available
AF7101	Forage Sorghum	Alta Seeds	Yes
AF7102	Forage Sorghum	Alta Seeds	Yes
AF7201	Forage Sorghum	Alta Seeds	Yes
AF7202	Forage Sorghum	Alta Seeds	Yes
AF7301	Forage Sorghum	Alta Seeds	Yes
AF7401	Forage Sorghum	Alta Seeds	Yes
AF8301	Forage Sorghum	Alta Seeds	Yes
AS5201	Sorghum x Sudangrass	Alta Seeds	Yes
AS6201	Sorghum x Sudangrass	Alta Seeds	Yes
AS6401	Sorghum x Sudangrass	Alta Seeds	Yes
AS6402	Sorghum x Sudangrass	Alta Seeds	Yes
AS9301	Sudangrass	Alta Seeds	Yes
AS9302	Sudangrass	Alta Seeds	Yes
Corvallis	Teffgrass	James VanLeeuwen	Yes
Cowvittles II	Forage Sorghum	Tennessee Farmers Cooperative	Yes
Dessie	Teffgrass	Tennessee Farmers Cooperative	Yes
FSG 1000 BMR	Sudangrass	Tennessee Farmers Cooperative	Yes
FSG 114 BMR6	Forage Sorghum	Tennessee Farmers Cooperative	Yes
FSG 115 Brachytic Dwarf BMR6	Forage Sorghum	Tennessee Farmers Cooperative	Yes
FSG 214 BMR6	Sorghum x Sudangrass	Tennessee Farmers Cooperative	Yes
FSG 215 BMR6	Sorghum x Sudangrass	Tennessee Farmers Cooperative	Yes
FSG 300	Pearl Millet	Tennessee Farmers Cooperative	Yes
FSG 315 Dwarf BMR	Pearl Millet	Tennessee Farmers Cooperative	Yes
Greengrazer V	Sorghum x Sudangrass	Tennessee Farmers Cooperative	Yes
Quick-N-Big	Crabgrass	Estel Farm & Seeds	Yes
Red River	Crabgrass	Estel Farm & Seeds	Yes

This and other useful information can be found at your local extension office, or on our website.



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