



2009 Warm-Season Annual Grass Report

Research Report 10-9

*Dr. Gary Bates, Forage Specialist
Joe Beeler, Research Associate
Department of Plant Sciences*

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 data in the following tables were determined using plot design and experimental techniques. This study was conducted using a randomized complete block design with 3 replications. The crop was grown using management practices considered to be the best for the crop, including fertilization according to soil test results.

Least significant difference (LSD) values at the 5 percent level are shown at the bottom of each table. Within any table, yields of any two varieties being compared must differ by at least this amount to be considered different. Also, coefficient of variation (CV %) values are shown at the bottom of each table. This value is a measure of the consistency of yields found within each study, with lower CVs indicating less variability.

Table 1: Yield of warm-season annual grass varieties at the Highland Rim Research and Education Center in Springfield.

Variety	Yield (ton DM/acre)			
	2009			
	Jul 9	Aug 11	Sep 24	Total
Red River crabgrass	0.17	2.10*	0.80*	3.07
Quick n Big crabgrass	0.70	1.33	0.73*	2.77
Leafy Green pearl millet	1.27*	1.90*	0.63*	3.80*
PROMAX sudangrass	1.60*	1.70*	0.70*	4.00*
Greengrazer sorghum x sudangrass	1.50*	1.30	0.77*	3.57
AMP-R40352 sorghum x sudangrass	1.23*	2.00*	0.57	3.80*
AMP-R82400 sorghum x sudangrass	0.77	1.90*	0.63*	3.30
AMP-R38327 sorghum x sudangrass	1.30*	2.03*	0.83*	4.17*
AMP-R52327 sorghum x sudangrass	1.50*	1.53*	0.70*	3.73*
AMP-SGII sorghum x sudangrass	1.40*	1.43	0.53	3.37
AMP-SPS sorghum x sudangrass	1.43*	1.57*	0.67*	3.67*
EXP2017 sorghum x sudangrass	0.83	2.10*	0.80*	3.73*
EXP3017 sorghum x sudangrass	1.60*	2.13*	0.97*	4.70*
Dessie teffgrass	1.20*	1.43	0.70*	3.33
Tiffany teffgrass	1.07	1.93*	0.93*	3.93*
CW0801 teffgrass	1.20*	1.10	0.40	2.70
CW0604 teffgrass	1.13	1.53*	0.70*	3.37
LSD (P=.05)	0.45	0.68	0.36	1.07
CV (%)	23	24	30	18
* yielded statistically the same as the top-yielding variety				
Nitrogen Application: 60 lb/acre at planting and 60 lb/acre after first harvest				
Planted May 28, 2009				

Table 2: Yield of warm-season annual grass varieties at the Plateau Research and Education Center in Crossville.

Variety	Yield (ton DM/acre)		
	2009		
	Aug 10	Sep 9	Total
Red River crabgrass	0.00	2.63*	2.63
Quick n Big crabgrass	0.10	0.57	0.67
Leafy Green pearl millet	0.63*	3.27*	3.90*
PROMAX sudangrassgrass	0.43	1.53	1.97
Greengrazer sorghum x sudangrass	0.63*	1.63	2.27
AMP-R40352 sorghum x sudangrass	0.50	1.47	1.97
AMP-R82400 sorghum x sudangrass	0.50	1.17	1.67
AMP-R38327 sorghum x sudangrass	0.70*	0.73	1.43
AMP-R52327 sorghum x sudangrass	0.40	1.37	1.77
AMP-SGII sorghum x sudangrass	0.53	1.80	2.33
AMP-SPS sorghum x sudangrass	0.70*	1.30	2.00
EXP2017 sorghum x sudangrass	0.47	0.87	1.33
EXP3017 sorghum x sudangrass	0.53	1.23	1.77
Dessie teffgrass	0.77*	0.50	1.27
Tiffany teffgrass	0.73*	0.03	0.77
CW0801 teffgrass	0.73*	0.00	0.73
CW0604 teffgrass	0.80*	1.07	1.87
LSD (P=.05)	0.22	1.09	1.18
CV (%)	25	53	40
* yielded statistically the same as the top-yielding variety			
Nitrogen Application: 60 lb/acre at planting and 60 lb/acre after first harvest			
Planted July 2, 2009			

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services.

Table 3: Yield of warm-season annual grass varieties at the Research and Education Center at Greeneville.

Variety	Yield (ton DM/acre)			
	2009			
	Jul 7	Aug 6	Sep 1	Total
Red River crabgrass	0.74	0.87	2.10*	3.70
Quick n Big crabgrass	0.93	0.40	0.90	2.23
Leafy Green pearl millet	1.71*	0.70	2.00*	4.41
PROMAX sudangrassgrass	1.42*	1.70*	2.63*	5.76*
Greengrazer sorghum x sudangrass	1.74*	1.33*	2.00*	5.07*
AMP-R40352 sorghum x sudangrass	1.32*	1.20	1.33	3.85
AMP-R82400 sorghum x sudangrass	0.81	1.07	1.27	3.14
AMP-R38327 sorghum x sudangrass	1.13	0.70	1.10	2.93
AMP-R52327 sorghum x sudangrass	0.92	1.20	1.70	3.82
AMP-SGII sorghum x sudangrass	1.20	1.67*	1.90*	4.76*
AMP-SPS sorghum x sudangrass	1.48*	1.10	2.00*	4.58
EXP2017 sorghum x sudangrass	0.92	0.83	1.47	3.22
EXP3017 sorghum x sudangrass	0.96	0.97	1.63	3.56
Dessie teffgrass	1.25	0.57	0.00	1.82
Tiffany teffgrass	1.35*	0.63	0.00	1.98
CW0801 teffgrass	1.11	0.57	0.00	1.68
CW0604 teffgrass	1.30*	0.53	0.00	1.83
LSD (P=.05)	0.48	0.42	0.85	1.03
CV (%)	24	27	39	18
* yielded statistically the same as the top-yielding variety				
Nitrogen Application: 60 lb/acre at planting and 60 lb/acre after first harvest				
Planted May 21, 2009				

Table 4: Variety Information

Variety	Supplier	Commercially Available
Dessie teffgrass	Allied Seed	Yes
Greengrazer sorghum x sudangrass	Allied Seed	Yes
AMP-R38327 sorghum x sudangrass	AMPAC Seeds	No
AMP-R40352 sorghum x sudangrass	AMPAC Seeds	No
AMP-R52327 sorghum x sudangrass	AMPAC Seeds	No
AMP-R82400 sorghum x sudangrass	AMPAC Seeds	No
AMP-SGII sorghum x sudangrass	AMPAC Seeds	No
AMP-SPS sorghum x sudangrass	AMPAC Seeds	No
PROMAX sudangrassgrass	AMPAC Seeds	Yes
CW0604 teffgrass	Cal/West Seeds	No
CW0801 teffgrass	Cal/West Seeds	No
EXP2017 sorghum x sudangrass	Coffey Forage Seeds Inc.	No
EXP3017 sorghum x sudangrass	Coffey Forage Seeds Inc.	No
Leafy Green pearl millet	Coffey Forage Seeds Inc.	Yes
Quick n Big crabgrass	Elstel Farm and Seeds	Yes
Red River crabgrass	Elstel Farm and Seeds	Yes
Tiffany teffgrass	Target Seed, LLC	Yes

This and other useful information can be found on the University of Tennessee Forages Web site.
<http://forages.tennessee.edu>