



2009 Alfalfa Report

Research Report 10-6

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 alfalfa varieties at the Highland Rim Research and Education Center in Springfield.

Variety	Yield (ton DM/acre)					
	2008 Total	2009				
		May 12	Jun 19	Jul 17	Aug 27	Total
Mountaineer 2.0	1.58*	2.65	2.03	1.20*	0.98	6.86*
Rebound 5.0	1.46*	2.40*	2.23*	1.22*	1.06*	6.91*
Farm Pro Anchormate	1.40	2.32*	2.34*	1.24*	1.05*	6.96*
Phoenix	1.47*	2.17*	2.25*	1.27*	1.18*	6.87*
Baralfa 53HR	1.43*	2.32*	2.11*	1.32*	1.11*	6.87*
Genoa	1.51*	2.21*	2.23*	1.28*	1.05*	6.76*
AmeriStand 407TQ	1.57*	2.18*	2.07*	1.28*	1.07*	6.61*
WL 363 HQ	1.44*	2.19*	2.08*	1.23*	1.07*	6.57*
PGI 459	1.44*	2.26*	2.04*	1.20*	0.99	6.48*
DKA50-18	1.39	2.06	2.08*	1.27*	1.07*	6.48*
Evermore	1.45*	2.30*	2.06*	1.13	0.89	6.38*
LSD (P=.05)	0.18	0.59	0.31	0.15	0.15	0.73
CV (%)	7	15	9	7	8	6
* yielded statistically the same as the top-yielding variety						
Planted April 17, 2008						

Table 2: Yield of alfalfa varieties at the East Tennessee Research and Education Center in Knoxville.

Variety	Yield (ton DM/acre)					
	2008 Total	2009				
		May 11	Jun 11	Jul 20	Sep 10	Total
PGI 459	1.60*	1.29*	2.20*	2.38*	1.16*	7.04*
Baralfa 53HR	1.42*	1.30*	2.20*	2.27*	1.36*	7.13*
Mountaineer 2.0	1.57*	1.46*	2.21*	2.20*	1.04*	6.91*
Evermore	1.49*	1.63*	2.06*	2.13*	1.14*	6.97*
Phoenix	1.40*	1.48*	2.16*	2.22*	1.16*	7.02*
DKA50-18	1.50*	1.26*	2.01*	2.21*	1.33*	6.81*
AmeriStand 407TQ	1.61*	1.28*	2.02*	2.20*	1.16*	6.66*
Rebound 5.0	1.44*	1.26*	1.97*	2.20*	1.21*	6.64*
Farm Pro Anchormate	1.42*	1.44*	2.04*	2.03	1.08*	6.59*
Genoa	1.33*	1.20	2.06*	2.16*	0.95	6.37*
WL 363 HQ	1.25	1.16	1.95*	2.02	1.11*	6.25*
LSD (P=.05)	0.31	0.41	0.47	0.33	0.36	1.12
CV (%)	12	18	13	9	18	10
* yielded statistically the same as the top-yielding variety						
Planted April 24, 2008						

Table 3: Yield of alfalfa varieties at the Research and Education Center in Greeneville.

Variety	Yield (ton DM/acre)		
	2009		
	Jul 22	Sep 1	Total
GA-505	1.50*	2.13*	3.63*
GA-MPX	1.26*	1.88*	3.14*
GA-APGC	1.41*	1.73*	3.14*
AmeriStand 407 TQ	1.00*	1.97*	2.97*
Phoenix	1.09	1.82*	2.91*
Rebound 5.0	1.11	1.77*	2.88*
AmeriStand 403T Plus	1.19	1.65*	2.84*
Evermore	1.14	1.65*	2.79
Archer III	1.07	1.52*	2.59
Syngenta 64Q22	1.14	1.42	2.55
LSD (P=.05)	0.35	0.65	0.84
CV (%)	17	22	17
* yielded statistically the same as the top-yielding variety			
Planted April 28, 2009			

Table 4: Yield of alfalfa varieties at the Plateau Research and Education Center in Crossville.

Variety	Yield (ton DM/acre)		
	2009		
	Jul 21	Aug 25	Total
Archer III	1.57*	1.45*	3.02*
AmeriStand 407 TQ	1.64*	1.19	2.83*
Phoenix	1.42*	1.30*	2.71*
Rebound 5.0	1.39*	1.31*	2.71*
GA-505	1.54*	1.16*	2.70*
GA-APGC	1.42*	1.17*	2.59*
GA-MPX	1.21*	1.34*	2.55*
Evermore	1.26*	1.24*	2.50*
AmeriStand 403T Plus	1.28*	1.11*	2.39*
Syngenta 64Q22	1.21*	1.15*	2.35*
LSD (P=.05)	0.52	0.32	0.73
CV (%)	22	15	16
* yielded statistically the same as the top-yielding variety			
Planted April 27, 2009			

Table 5: Variety Information

Variety	Supplier	Commercially Available
Evermore	Allied Seed	Yes
Phoenix	Allied Seed	Yes
AmeriStand 403T Plus	America's Alfalfa	Yes
AmeriStand 407TQ	America's Alfalfa	Yes
Archer III	America's Alfalfa	Yes
Farm Pro Anchormate	America's Alfalfa	Yes
Baralfa 53HR	Barenbrug	Yes
PGI 459	Cal West/Producer's Choice	Yes
Mountaineer 2.0	Croplan Genetics	Yes
Rebound 5.0	Croplan Genetics	Yes
DKA50-18	Monsanto	Yes
Genoa	NK Brand Seeds	Yes
Syngenta 64Q22	Syngenta	Yes
GA-505	University of Georgia	Yes
GA-APGC	University of Georgia	No
GA-MPX	University of Georgia	No
WL 363 HQ	WL Research	Yes

This and other useful information can be found on the University of Tennessee Forages Web site.

<http://forages.tennessee.edu>