



2012 Orchardgrass Report

Research Report 13-10

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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: 3 year total yield of orchardgrass varieties at the Research and Education Center at Greeneville.

Variety	Yield ton DM/acre			
	2009	2010	2011	3 Year Total
MegaBite	6.44*	2.62*	1.76*	10.48*
BO7.IC1	6.24*	2.61*	1.41*	10.57*
Benchmark Plus	5.78*	2.55*	1.71*	10.07*
Warrior II	6.17*	2.13*	1.32*	9.76*
Olympia	5.37*	2.46*	1.41*	9.55*
Persist	6.55*	2.56*	1.71*	11.24*
B-7.0103	5.90*	2.37*	1.43*	9.82*
Shiloh II	5.31*	2.56*	1.28*	9.20*
Profit	5.62*	2.40*	1.43*	9.70*
LSD P=.05	1.26	0.67	0.92	2.18
CV %	12	16	36	13
* yielded statistically the same as the top-yielding variety				
Nitrogen Application: 60 lb/acre at green-up, 30 lb/acre after first cut, and 60 lb/acre in September				
Planted September 30, 2008				

Table 2: 3 year total yield of orchardgrass varieties at the Research and Education Center at Milan.

Variety	Yield ton DM/acre			
	2009	2010	2011	3 Year Total
MegaBite	1.91*	2.78*	2.26*	6.95*
BO7.IC1	1.76	2.66*	2.16*	6.59
Benchmark Plus	1.78	2.62*	2.25*	6.65
Warrior II	2.09*	2.71*	2.17*	6.98*
Olympia	2.20*	2.82*	2.59*	7.61*
Persist	2.31*	2.79*	2.38*	7.49*
B-7.0103	1.80*	2.67*	2.16*	6.62
NFOG 101	0.78	2.18	2.00	4.97
Shiloh II	1.66	2.63*	2.44*	6.73
Profit	2.05*	2.36	2.09*	6.49
LSD P=.05	0.44	0.36	0.52	0.84
CV %	14	8	13	7
* yielded statistically the same as the top-yielding variety				
Nitrogen Application: 60 lb/acre at green-up, 30 lb/acre after first cut, and 60 lb/acre in September				
Planted September 22, 2008				

Table 3: 3 year total yield of orchardgrass varieties at the Research and Education Center at Greeneville.

Variety	Yield ton DM/acre					3 Year Total
	2010	2011	2012			
			May 1	Jul 13	Total	
Orca	1.02	1.05	0.67	0.28	0.95	4.46
Excellate SA	1.21	1.14	0.81	0.72*	1.53*	6.00*
B-9.1476	0.58	1.11	0.94	0.71*	1.65*	5.11*
Benchmark Plus	1.29	1.54*	0.69	0.85*	1.54*	6.48*
B-7.0103	1.32	1.68*	1.00	0.36	1.36*	6.06*
Harvestar	1.40	1.07	0.73	0.58*	1.31*	5.52*
Olympia	1.70	1.78*	0.91	0.43*	1.34*	6.57*
Barexcel	1.08	1.33*	1.18	0.64*	1.82*	5.71*
Barlemas	0.87	0.83	0.83	0.56*	1.39*	4.68
Persist	1.21	1.70*	1.26*	0.55*	1.81*	6.32*
LSD P=.05	0.33	0.48	0.41	0.41	0.70	1.40
CV %	16	26	32	62	36	17
* yielded statistically the same as the top-yielding variety						
Nitrogen Application: 60 lb/acre at green-up, 30 lb/acre after first cut, and 60 lb/acre in September						
Planted September 30, 2009						

Table 4: Variety Information

Variety	Supplier	Commercially Available
Benchmark Plus	Allied Seed	Yes
Profit	AMPAC Seed	Yes
Barlemas	Barenbrug	Yes
Barexcel	Barenbrug	Yes
B07.IC1	Blue Moon Farm LLC	No
B-7.0103	Caudill Seed	Yes
Harvestar	Columbia Seeds	Yes
Excellate SA	Lewis Seed Company	Yes
Olympia	Pennington Seed	Yes
Warrior II	Pro Seeds	Yes
Megabite	Rose Agri-Seed	Yes
Persist	Smith Seed	Yes
Shiloh II	Turner Seed/Pro Seed	Yes
Orca	PickseedUSA Inc	Yes

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

<http://forages.tennessee.edu>