BEEF & FORAGE CENTER
UTIA INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

Research Report 15-11
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2015 COOL-SEASON ANNUAL RYEGRASS 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. 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 cool-season annual ryegrass varieties.

	Greeneville Research and Education Center			
	Yield (ton DM/acre)			
Variety	**Apr 8**	**May 6**	**May 26**	**Total**
Bill [1]	0.00	0.46	0.45	0.91
Fria	0.98	1.91*	0.61	3.51*
GO-TT213 [1]	0.00	0.74	0.52	1.26
Jackson	0.87	1.68*	0.61	3.15
Jumbo	0.48	1.28	0.71	2.47
Lonestar	0.51	1.78*	0.74	3.03
M2CVS	1.12*	2.14*	0.74	4.01*
Marshall	0.98	1.81*	0.79	3.58*
ME4	1.37*	1.99*	0.71	4.07*
ME-94	1.11*	1.91*	0.73	4.02*
Meroa	0.92	1.41	1.34*	3.69*
Nelson	0.50	0.90	0.87	2.26
OZ-WW	0.75	1.43	0.59	2.77
Passerel Plus	0.63	1.69*	0.59	2.91
SBA 112	0.80	2.00*	0.79	3.60*
Tamtbo	0.47	1.27	0.77	2.51
Tetrastar [1]	0.00	0.70	0.50	1.21
Winterhawk	0.99	1.86*	0.66	3.51*
P Value	< 0.0001	< 0.0001	= 0.0038	< 0.0001
LSD	0.32	0.51	0.33	0.63

* yielded statistically the same as the top-yielding variety

[1] For these varieties, more than 80% of the plot showed stunting due to cold damage

Nitrogen application: 45 lb/acre at planting, 60 lb/acre at green-up, 30 lb/acre after first harvest

Planted September 17, 2014

Table 2: Mean forage quality values by harvest.

Harvest	Constituents [1]				
	% CP	% ADF	% NDF	% TDN	RFQ
April 8, 2015	24.4	29.8	44.9	76.6	147.9
May 6. 2015	22.3	33.2	50.8	71.3	141.5
May 26, 2015	16.2	31.5	52.5	66.6	119.1

[1] CP, crude protein; ADF, acid detergent fiber; NDF, neutral detergent fiber; TDN, total digestible nutrients; RFQ, relative forage quality (Analysis performed using Near Infrared Spectrometer [NIRS] Technology) Target stage of growth for harvest was late boot.

Table 3: Variety Information

Variety	Supplier	Commercially Available
Bill	Smith Seed Services	Yes
Fria	Allied Seed	Yes
GO-TT213	Grassland Oregon, Inc.	No
Jackson	The Wax Company	Yes
Jumbo	Barenbrug	Yes
Lonestar	Grassland Oregon, Inc.	Yes
M2CVS	The Wax Company	No
Marshall	The Wax Company	Yes
ME4	The Wax Company	No
ME-94	The Wax Company	No
Meroa	Smith Seed Services	Yes
Nelson	The Wax Company	Yes
OZ-WW	Oregro Seeds	No
Passerel Plus	Pennington	Yes
SBA 112	Saddle Butte Ag Inc.	No
Tamtbo	Oregro Seeds	Yes
Tetrastar	Grassland Oregon, Inc.	Yes
Winterhawk	Oregro Seeds	Yes

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

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