

2019 ORCHARDGRASS 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 four replications. Least significant difference (LSD) values at the 5 percent level are shown at the bottom of each table with the coefficient of variation (CV). Within any table, yield of any two varieties being compared must differ by at least this amount to be considered different.

Table 1: Yield of orchardgrass varieties at the Highland Rim AgResearch and Education Center. Springfield, TN.

Variety	Supplier	Commercially Available	Yield (ton DM/acre)			
			2018			2018 Total
			May 15	Jun 18	Oct 18	
Albert	Oregro Seeds	Yes	1.15	0.93	1.47	3.46
Endurance	DLF Pickseed USA Inc.	Yes	0.95	0.91	1.77*	3.54
Excellate SA	Lewis Seed Co.	Yes	1.12	0.88	1.38	3.29
FSG 506OG	Tennessee Farmers Cooperative	Yes	1.24	0.93	1.45	3.51
Inavale	DLF Pickseed USA Inc.	Yes	1.12	0.99	1.71*	3.72
Olathe	DLF Pickseed USA Inc.	Yes	1.07	0.96	2.02*	3.97
Olympia	Pennington Seed	Yes	1.30	0.90	1.39	3.53
Persist	Smith Seed Services	Yes	0.93	0.88	1.63	3.34
Potomac	Smith Seed Services	Yes	1.10	0.99	1.51	3.51
Quickdraw	Byron Seeds LLC	Yes	1.11	0.95	1.66	3.62
Tucker	Oregro Seeds	Yes	1.19	0.90	1.43	3.42
<i>Experimental Varieties</i>						
TN-Per-2016	The University of Tennessee	No	1.13	1.05	1.52	3.61
SOG-1614	Smith Seed Services	No	1.01	0.99	1.61	3.52
CV			9	6	12	5
LSD (P<0.05)			nd ¹	nd	0.37	nd
* yielded statistically the same as the top-yielding variety						
¹ no-significant differences among the varieties						
Fertilization: Soil amended when required for Lime, P, and K. Nitrogen Application: 60 lb/acre at green-up, 30 lb/acre after first cut, and 60 lb/acre in September						
Planted: September 18, 2017						

Table 2: Mean forage nutritive values by harvest.

Species	Constituents ¹	Harvest Date		
		May 15	Jun 18	Oct 18
Orchardgrass	CP	16.2	13.3	10.7
	ADF	36.5	33.7	39.3
	NDF	52.6	62.6	69.2
	TDN	60.4	63.3	57.5
¹ Nutritive values represented at 100% DM Basis for 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 late boot. Predicted using the grass hay model (NIRS Consortium, 2018).				

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

