BEEF & FORAGE CENTER

UTIA INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

Research Report 19-11
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2019 RED CLOVER 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 red clover varieties at the Highland Rim AgResearch and Education Center. Springfield, TN.

| | | | Yield (ton DM/acre) | | | | | |
| | | | 2017 | 2018 | | | 2018 | 2 Year |
Variety	Supplier	Commercially Available	Total	May 1	Jun 14	Oct 18	Total	Total
BARDURO	Barenbrug USA	Yes	3.15	1.31	0.76	0.59	2.57	5.81
FREEDOM!	Barenbrug USA	Yes	3.25	1.28	0.93*	0.51	2.89	5.86
FSG 401RC	Tennessee Farmers Cooperative	Yes	3.19	1.30	0.99*	0.48	2.90	6.10
Experimental Varieties								
BAR TP BAFR	Barenbrug USA	No	3.20	1.32	0.78	0.44	2.58	5.80
BAR TP CWBA	Barenbrug USA	No	3.21	1.22	0.81*	0.59	2.60	5.86
CW30091	Barenbrug USA	No	3.28	1.52	0.82*	0.59	2.64	6.32
DFRC11	USDA-ARS	No	2.90	1.23	0.85*	0.59	2.80	5.74
WI-CHK	USDA-ARS	No	3.11	1.54	1.10*	0.59	3.04	6.00
		CV	4	9	13	11	7	3
		LSD (P<0.05)	nd[1]	nd	0.28	nd	nd	nd
* yielded statistically the same as the top-yielding variety								
[1] not significantly different in yield from the highest numerical yielding variety in the column								
Fertilization: Seed was innoculated at time of planting for microbial nitrogen fixation Soil tested and ammended annually, if needed.								
Planted September 9, 2016								

Table 2: Mean forage nutritive values by 2018 harvest.

| | | Harvest Date | | |
Species	Constituents[1]	May 1	Jun 14	Oct 18
Red Clover	CP	22.3	26.2	18.6
	ADF	30.5	33.3	38.6
	NDF	39.4	41.4	46.4
	TDN	66.7	63.7	58.2

[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). Predicted using the legume hay model (NIRS Consortium, 2018).

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

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