BEEF & FORAGE CENTER

Research Report 25-12
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2025 COOL-SEASON ANNUAL GRASS VARIETY TRIAL

The forage cultivar evaluation program is a partnership between UT 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 at one location. 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. This trial location received 45 inches of rain from January into July. Harvesting this trial proved almost impossible and was similar to what producers in our region experienced. One harvest was accomplished, however, cleaning off plot area was not possible. No other harvest for the 2025 season was performed due to weather and ground moisture conditions.

Table 1: Yield of cool-season annual grass varieties at the East Tennessee AgResearch and Education Center in Knoxville, TN.

				Yield (ton DM/acre)
			Commercially	2025
Variety	Species	Supplier	Available	May 16
Amp	Columbia Seeds	Annual Ryegrass	Yes	3.16
Bruiser	AMPAC Seed Company	Annual Ryegrass	Yes	3.16
Centurion	Mountain View Seeds	Annual Ryegrass	Yes	3.21
Cold Green	AMPAC Seed Company	Annual Ryegrass	Yes	2.43
DynaPlus	Columbia Seeds	Annual Ryegrass	Yes	2.60
Jackson	The WAX Company	Annual Ryegrass	Yes	3.05
Jumbo	Barenbrug USA	Annual Ryegrass	Yes	3.18
Lonestar	GO Seed	Annual Ryegrass	Yes	2.98
Maximus	Barenbrug USA	Annual Ryegrass	Yes	3.31
More	GO Seed	Annual Ryegrass	Yes	2.84
Nelson	The WAX Company	Annual Ryegrass	Yes	3.16
Ribeye	Barenbrug USA	Annual Ryegrass	Yes	4.01*
Rival	AMPAC Seed Company	Annual Ryegrass	Yes	2.89
Sweet T	AMPAC Seed Company	Annual Ryegrass	Yes	2.43
Tetraprime II	Mountain View Seeds	Italian Ryegrass	Yes	3.56
Tetrastar	GO Seed	Annual Ryegrass	Yes	2.92
WAX Marshall	The WAX Company	Annual Ryegrass	Yes	4.20*
Experimental Varieties				
BAR L M490-3	Barenbrug USA	Annual Ryegrass	No	3.17
BAR L M490-4	Barenbrug USA	Annual Ryegrass	No	3.13
ME-4	The WAX Company	Annual Ryegrass	No	3.40
ME-94	The WAX Company	Annual Ryegrass	No	3.70
WMCT	The WAX Company	Annual Ryegrass	No	3.02
WMWL	The WAX Company	Annual Ryegrass	No	3.59
WMWL-2	The WAX Company	Annual Ryegrass	No	3.33
			CV%	13
			P-Value	<0.0001
			LSD (P<0.05)	0.51

* yielded statistically the same as the top-yielding variety

Planted October 17, 2024- Nitrogen application: 45 lb/acre at planting, 60 lb/acre at green-up, The recommended 30 lb/acre after first harvest was not applied due to weather conditions at trial location.

Table 2: Mean forage nutritive values by harvest.

Species	Constituents[1] (%)	Harvest Date 2025 May 16
Annual Ryegrass	CP	14.1
	ADF	32.5
	NDF	56.8
	TDN	64.6

[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 mid to late boot. Grass Hay Calibration (NIRS Consortium, 2025).

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

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