

Forage Analysis Report

David Jones
1056 Hwy 131
Horn Hill, TN 37881
dkpearson444@gmail.com

University of Tennessee Soil, Plant and Pest Center
5201 Marchant Dr
Nashville, TN 37211

soillab@tennessee.edu | 615-832-5850

SOIL, PLANT & PEST CENTER
UTEXTENSION
INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

Sample Name: Aug 1st 2nd cutting
Lab Number: 118309
Type (Identified by Client): Hay
Forage Species (Identified by Client): Mixed Grasses



Payment Information:
Check 2507 - \$47.00

Report Date: 8/13/2026

Near-Infrared Spectroscopy Analysis (NIRS)

Water Content

as received

DM	Dry Matter (Final)	91.92 %
Moisture	Moisture	8.08 %

Protein

100% DM basis

CP	Crude Protein	15.01 %
ADICP	Acid Detergent Insoluble Crude Protein	1.16 %
NDICP	Neutral Detergent Insoluble Crude Protein	3.13 %
InsolCP	Insoluble Crude Protein	8.72 %
Lysine	Lysine	0.52 %

Fiber

ADF	Acid Detergent Fiber	33.43 %
NDF	Neutral Detergent Fiber	60.91 %
Lignin	Lignin	5.43 %
aNDFom	amylase-treated NDF corrected for organic matter	58.40 %

Carbohydrates

ESC	Sugar	5.79 %
Fructan	Fructan	2.21 %
Starch	Starch	0.34 %
WSC	Water-Soluble Carbohydrates	7.14 %
NSC	Non-Structural Carbohydrates	7.48 %
NFC	Non-Fiber Carbohydrates	16.25 %

Digestibility

IVTDMD48h	<i>in-vitro</i> True DM Digestibility at 48h	74.22 %
IVTDMD30h	<i>in-vitro</i> True DM Digestibility at 30h	62.94 %
NDFD48h	Neutral Digestible Fiber Digestibility at 48h	54.98 %
dNDF30h	Digestible Neutral Detergent Fiber at 30h	21.74 %
NDFD30h	Neutral Detergent Fiber Digestibility at 30h	35.70 %
dNDF48h	Digestible Neutral Detergent Fiber at 48h	33.49 %
uNDF240h	Undigestible Neutral Detergent Fiber at 240h	16.28 %
uNDF240om	Undigestible Neutral Detergent Fiber at 240om	16.25 %

Fat Content

Fat	Fat	3.22 %
-----	-----	--------

Minerals

100% DM basis

Ash	Ash	4.61 %
-----	-----	--------

P	Phosphorus (Chemistry)	0.32 %
K	Potassium (Chemistry)	1.22 %
Ca	Calcium (Chemistry)	0.54 %
Mg	Magnesium (Chemistry)	0.35 %
S	Sulfur (Chemistry)	0.16 %
Zn	Zinc (Chemistry)	27 ppm
B	Boron (Chemistry)	4 ppm
Fe	Iron (Chemistry)	218 ppm
Cu	Copper (Chemistry)	6 ppm
Mn	Manganese (Chemistry)	143 ppm
Nitrates		<i>100% DM basis</i>
NO ₃	Nitrates	412 ppm
Energy Calculations		
TDN	Total Digestible Nutrients	63.59 %
DE	Digestible Energy	1.81 MCal/kg
ME	Metabolizable Energy	1.04 MCal/lb
NE _m	Net-Energy for Maintenance	0.65 MCal/lb
NE _g	Net-Energy for Gain	0.38 MCal/lb
NE _l	Net-Energy for Lactation	0.65 MCal/lb
Nutritive Value Parameters		<i>Scale</i>
RFQ	Relative Forage Quality	102
RFV	Relative Feed Value	96

-
- All nutritive analyses at 100% Dry Matter (DM) basis unless otherwise noted.
 - Not all constituents are available for each forage type submitted to the Soil, Plant and Pest Center.
 - Forage analysis calibrations provided by the NIRS Forage and Feed Consortium. Certification with the National Forage Testing Association.
 - For conversions: ppm = mg/kg
 - Relative Forage Quality (RFQ) is reported for all grass, mixed, legume hays and haylages.
 - Relative Feed Value (RFV) is reported for Alfalfa only.
 - No nutritive value parameter scale is available for corn silage.

[Forage Analysis Definitions Publication W1341](#)

For more information about your forage analysis, please visit with your local UT/TSU Extension Agent.