

Forage Analysis Report

David Jones
1056 Hwy 131
Horn Hill, TN 37881
dkpearson444@gmail.com
423-754-3681

University of Tennessee Soil, Plant and Pest Center
5201 Marchant Dr
Nashville, TN 37211
soillab@tennessee.edu | [615-832-5850](tel:615-832-5850)

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

Sample Name: Sept 4 2nd cut
Lab Number: 118553
Type (Identified by Client): Hay
Forage Species (Identified by Client): Mixed Grasses



Payment Information:
Check 2513 - \$47.00

Report Date: 9/18/2026

Near-Infrared Spectroscopy Analysis (NIRS)

Water Content

as received

DM	Dry Matter (Final)	89.65 %
Moisture	Moisture	10.35 %

Protein

100% DM basis

CP	Crude Protein	17.88 %
ADICP	Acid Detergent Insoluble Crude Protein	1.09 %
NDICP	Neutral Detergent Insoluble Crude Protein	3.38 %
InsolCP	Insoluble Crude Protein	10.51 %
Lysine	Lysine	0.62 %

Fiber

ADF	Acid Detergent Fiber	32.20 %
NDF	Neutral Detergent Fiber	58.95 %
Lignin	Lignin	4.99 %
aNDFom	amylase-treated NDF corrected for organic matter	57.66 %

Carbohydrates

ESC	Sugar	5.68 %
Fructan	Fructan	2.18 %
Starch	Starch	0.60 %
WSC	Water-Soluble Carbohydrates	6.81 %
NSC	Non-Structural Carbohydrates	7.41 %
NFC	Non-Fiber Carbohydrates	14.86 %

Digestibility

IVTDMD48h	<i>in-vitro</i> True DM Digestibility at 48h	76.99 %
IVTDMD30h	<i>in-vitro</i> True DM Digestibility at 30h	64.27 %
NDFD48h	Neutral Digestible Fiber Digestibility at 48h	56.77 %
dNDF30h	Digestible Neutral Detergent Fiber at 30h	22.68 %
NDFD30h	Neutral Detergent Fiber Digestibility at 30h	38.48 %
dNDF48h	Digestible Neutral Detergent Fiber at 48h	33.47 %
uNDF240h	Undigestible Neutral Detergent Fiber at 240h	14.26 %
uNDF240om	Undigestible Neutral Detergent Fiber at 240om	14.77 %

Fat Content

Fat	Fat	2.91 %
-----	-----	--------

Minerals

100% DM basis

Ash	Ash	5.40 %
-----	-----	--------

P	Phosphorus (Chemistry)	0.30 %
K	Potassium (Chemistry)	1.22 %
Ca	Calcium (Chemistry)	0.48 %
Mg	Magnesium (Chemistry)	0.41 %
S	Sulfur (Chemistry)	0.16 %
Zn	Zinc (Chemistry)	23 ppm
B	Boron (Chemistry)	3 ppm
Fe	Iron (Chemistry)	90 ppm
Cu	Copper (Chemistry)	6 ppm
Mn	Manganese (Chemistry)	122 ppm
Nitrates		<i>100% DM basis</i>
NO ₃	Nitrates	3334 ppm
Energy Calculations		
TDN	Total Digestible Nutrients	64.88 %
DE	Digestible Energy	1.86 MCal/kg
ME	Metabolizable Energy	1.07 MCal/lb
NE _m	Net-Energy for Maintenance	0.67 MCal/lb
NE _g	Net-Energy for Gain	0.40 MCal/lb
NE _l	Net-Energy for Lactation	0.66 MCal/lb
Nutritive Value Parameters		<i>Scale</i>
RFQ	Relative Forage Quality	107

-
- 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.

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.