



Forage Analysis Report

Alex Fullmer
1230 Hinkledale Rd
McKenzie, TN 38201

County: Carroll
Email: alex@haytreefarm.com

Sample ID: 1
Lab Number: 117843
Reported: 4/24/2026
Type: Hay

Forage Species (Identified by Client): Mixed Grasses

Near-Infrared Spectroscopy Analysis (NIRS)¹

Water Content			<i>as received</i>
DM	Dry Matter		72 %
Moisture	Moisture		28 %
Protein			<i>100% DM basis</i>
CP	Crude Protein		18.16 %
ADICP	Acid Detergent Insoluble CP		0.90 %
NDICP	Neutral Detergent Insoluble CP		1.10 %
InsolCP	Insoluble Crude Protein		9.86 %
Lysine	Lysine		0.63 %
Fiber			<i>100% DM basis</i>
ADF	Acid Detergent Fiber		27.96 %
NDF	Neutral Detergent Fiber		37.77 %
Lignin	Lignin		5.34 %
Carbohydrates			<i>100% DM basis</i>
ESC	Sugar		10.49 %
Fructan	Fructan		2.21 %
Starch	Starch		1.69 %
WSC	Water Soluble Carbohydrates		12.95 %
NSC	Non-Structural Carbohydrates		14.64 %
NFC	Non-Fiber Carbohydrates		36.41 %
Digestibility			<i>100% DM basis</i>
IVTDMD48h	<i>in-vitro</i> True DM Digestibility 48h		88.01 %
NDFD48h	Neutral Detergent Fiber Digestibility 48h		79.00 %

Fat			<i>100% DM basis</i>
Fat	Fat		2.17 %
Minerals			<i>100% DM basis</i>
Ash	Ash		5.49 %
Ca	Calcium		0.97 %
P	Phosphorus		0.29 %
Mg	Magnesium		0.16 %
K	Potassium		2.37 %
Energy Calculations			<i>100% DM basis</i>
TDN	Total Digestible Nutrients		69.32 %
DE	Digestible Energy		1.91 MCal/kg
NE _m	Net Energy Maintenance		0.73 MCal/lb
NE _g	Net Energy Gain		0.46 MCal/lb
NE _l	Net Energy Lactation		0.71 MCal/lb
Components			<i>Wet Chemistry</i>
pH	Ensiled		pH
NO ₃	Nitrates		ppm ²
Calculated Parameters ³			<i>Scale</i>
RFQ	Relative Forage Quality		179
RFV	Relative Feed Value		0

² ppm = mg/kg

³ Relative Forage Quality (RFQ) is reported for all grass, mixed, legume hays and haylages; and, Relative Feed Value (RFV) is reported for Alfalfa only. No nutritive value scale is available for corn silage

¹ 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.

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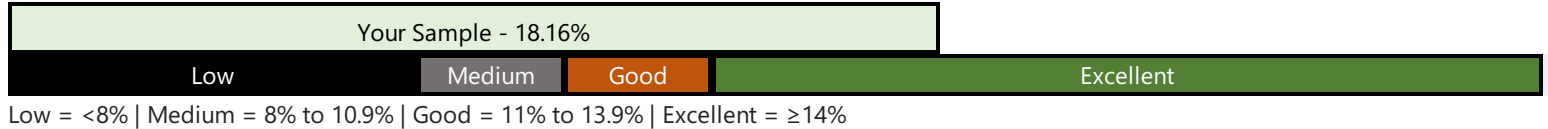
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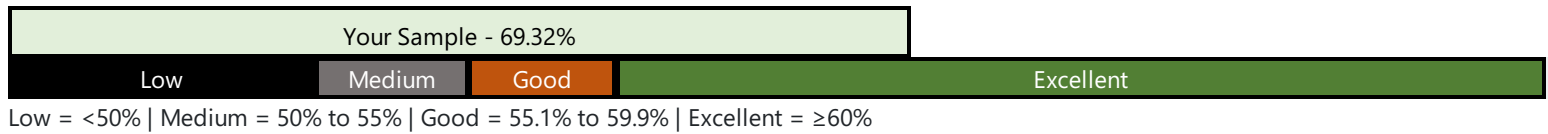
Understanding Hay Quality

The graphs below are presented to provide a general guide to evaluate the Crude Protein (CP) and Total Digestible Nutrients (TDN) levels of the forage submitted for testing. If you need help understanding the results or information on developing a balanced ration for a specific animal(s), please contact your local UT Extension agent or visit utbeef.com.

Crude Protein (CP)



Total Digestible Nutrients (TDN)



Wet Chemistry

Minerals		<i>as received</i>
Ca	Calcium	%
P	Phosphorus	%
Mg	Magnesium	%
K	Potassium	%
S	Sulfur	%
Cu	Copper	ppm ¹
Zn	Zinc	ppm
Mn	Manganese	ppm
Fe	Iron	ppm
B	Boron	ppm

¹ ppm = mg/kg

Payment Details

Receipt: UT Carrol co Enhancement fund
Amount: \$17.00
Method: BILLED
Payment Date: 4/20/2026