



# Forage Analysis Report

**DAVID JONES**  
**1056 HWY 131**  
**THORN HILL, TN 37881**

County: Hancock  
 Email: [DKPEARSON444@GMAIL.COM](mailto:DKPEARSON444@GMAIL.COM)

Sample ID: JULY2 2ND CUTTING  
 Lab Number: 114599  
 Reported: 7/17/2024  
 Type: Hay

Forage Species (Identified by Client): Mixed Grasses

## Near-Infrared Spectroscopy Analysis (NIRS)<sup>1</sup>

Water Content			as received		
DM	Dry Matter	90 %			
Moisture	Moisture	10 %			
Protein			100% DM basis		
CP	Crude Protein	13.91 %			
ADICP	Acid Detergent Insoluble CP	0.65 %			
NDICP	Neutral Detergent Insoluble CP	2.96 %			
InsolCP	Insoluble Crude Protein	8.32 %			
Lysine	Lysine	0.48 %			
Fiber			100% DM basis		
ADF	Acid Detergent Fiber	32.39 %			
NDF	Neutral Detergent Fiber	57.54 %			
Lignin	Lignin	3.96 %			
Carbohydrates			100% DM basis		
ESC	Sugar	9.07 %			
Fructan	Fructan	2.00 %			
Starch	Starch	1.03 %			
WSC	Water Soluble Carbohydrates	10.98 %			
NSC	Non-Structural Carbohydrates	12.01 %			
NFC	Non-Fiber Carbohydrates	20.74 %			
Digestibility			100% DM basis		
IVTDM48h	<i>in-vitro</i> True DM Digestibility 48h	77.62 %			
NDFD48h	Neutral Detergent Fiber Digestibility 48h	58.00 %			
Fat			100% DM basis		
Fat	Fat	3.24 %			
Minerals			100% DM basis		
Ash	Ash	4.57 %			
Ca	Calcium	%			
P	Phosphorus	%			
Mg	Magnesium	%			
K	Potassium	%			
Energy Calculations			100% DM basis		
TDN	Total Digestible Nutrients	64.68 %			
DE	Digestible Energy	1.82 Mcal/kg			
NE <sub>m</sub>	Net Energy Maintenance	0.66 Mcal/lb			
NE <sub>g</sub>	Net Energy Gain	0.40 Mcal/lb			
NE <sub>l</sub>	Net Energy Lacatation	0.66 Mcal/lb			
Components			Wet Chemistry		
pH	Ensiled	pH			
NO <sub>3</sub>	Nitrates	216 ppm <sup>2</sup>			
Calculated Parameters <sup>3</sup>			Scale		
RFQ	Relative Forage Quality	110			
RFV	Relative Feed Value	0			

<sup>2</sup> ppm = mg/kg

<sup>3</sup> 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

<sup>1</sup> 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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## 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](http://utbeef.com).

### Crude Protein (CP)



Low = <8% | Medium = 8% to 10.9% | Good = 11% to 13.9% | Excellent = ≥14%

### Total Digestible Nutrients (TDN)



Low = <50% | Medium = 50% to 55% | Good = 55.1% to 59.9% | Excellent = ≥60%

## Wet Chemistry

Minerals		<i>as received</i>
Ca	Calcium	0.60 %
P	Phosphorus	0.33 %
Mg	Magnesium	0.47 %
K	Potassium	1.34 %
S	Sulfur	0.17 %
Cu	Copper	5 ppm <sup>1</sup>
Zn	Zinc	19 ppm
Mn	Manganese	86 ppm
Fe	Iron	58 ppm
B	Boron	4 ppm

<sup>1</sup> ppm = mg/kg

## Payment Details

Receipt:  
Amount: \$47.00  
Method: 2444  
Payment Date: 7/10/2024