

# Forage Analysis Report

**GREGORY MOCK**  
**157 ETT BROWN ROAD**  
**DEER LODGE, TN 37726**

County: Morgan  
Email: [GDM1951@GMAIL.COM](mailto:GDM1951@GMAIL.COM)

Sample ID: Nathan OG  
Lab Number: 117248  
Reported: 11/17/2025  
Type: Hay  
Forage Species (Identified by Client): Orchardgrass

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

Water Content			as received
DM	Dry Matter	88	%
Moisture	Moisture	12	%
Protein			100% DM basis
CP	Crude Protein	17.65	%
ADICP	Acid Detergent Insoluble CP	1.02	%
NDICP	Neutral Detergent Insoluble CP	3.80	%
InsolCP	Insoluble Crude Protein	11.75	%
Lysine	Lysine	0.61	%
Fiber			100% DM basis
ADF	Acid Detergent Fiber	30.27	%
NDF	Neutral Detergent Fiber	55.94	%
Lignin	Lignin	4.51	%
Carbohydrates			100% DM basis
ESC	Sugar	6.82	%
Fructan	Fructan	2.38	%
Starch	Starch	1.77	%
WSC	Water Soluble Carbohydrates	9.24	%
NSC	Non-Structural Carbohydrates	11.01	%
NFC	Non-Fiber Carbohydrates	16.03	%
Digestibility			100% DM basis
IVTDMD48h	in-vitro True DM Digestibility 48h	80.38	%
NDFD48h	Neutral Detergent Fiber Digestibility 48h	60.00	%

Fat			100% DM basis
Fat	Fat	3.75	%
Minerals			100% DM basis
Ash	Ash	6.63	%
Ca	Calcium	0.53	%
P	Phosphorus	0.30	%
Mg	Magnesium	0.28	%
K	Potassium	2.33	%
Energy Calculations			100% DM basis
TDN	Total Digestible Nutrients	66.90	%
DE	Digestible Energy	1.91	MCal/kg
NE <sub>m</sub>	Net Energy Maintenance	0.70	MCal/lb
NE <sub>g</sub>	Net Energy Gain	0.43	MCal/lb
NE <sub>l</sub>	Net Energy Lacatation	0.68	MCal/lb
Components			Wet Chemistry
pH	Ensiled	pH	
NO <sub>3</sub>	Nitrates	ppm <sup>2</sup>	
Calculated Parameters <sup>3</sup>			Scale
RFQ	Relative Forage Quality	117	
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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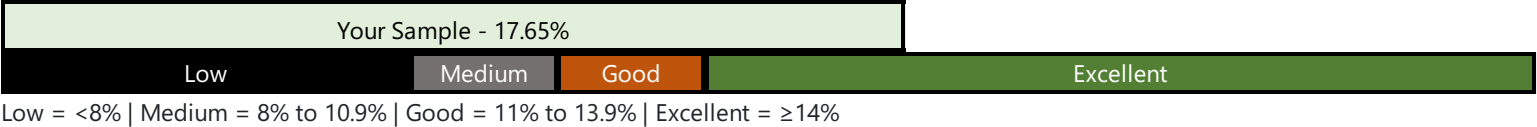
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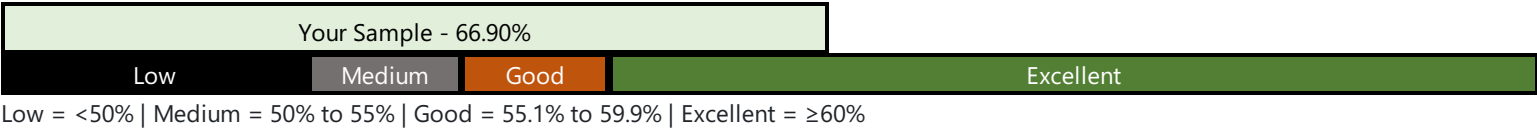
## Understanding Hay Quality

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)



### Total Digestible Nutrients (TDN)



## Wet Chemistry

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

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

## Payment Details

Receipt:  
Amount: \$17.00  
Method: 151  
Payment Date: 11/6/2025