



# Forage Analysis Report

GREGORY MOCK 157 ETT BROWN ROAD DEER LODGE, TN 37726 County: Morgan Email: GDM1951@GMAIL.COM Sample ID: Thad OG Lab Number: 117033

Reported: 10/8/2025 Type: Hay

Forage Species (Identified by Client): Orchardgrass

# **Near-Infared Spectroscopy Analysis (NIRS)**

Water Content		as receiv	red
DM	Dry Matter	90	%
Moisture	Moisture	10	%
Protein		100% DM l	basis
СР	Crude Protein	14.82	%
ADICP	Acid Detergent Insoluble CP	0.90	%
NDICP	Neutral Detergent Insoluble CP	3.00	%
InsoICP	Insoluble Crude Protein	9.30	%
Lysine	Lysine	0.52	%
Fiber		100% DM l	basis
ADF	Acid Detergent Fiber	30.19	%
NDF	Neutral Detergent Fiber	54.79	%
Lignin	Lignin	3.89	%
Carbohydrates		100% DM l	basis
ESC	Sugar	8.60	%
Fructan	Fructan	2.27	%
Starch	Starch	1.64	%
WSC	Water Soluble Carbohydrates	11.58	%
NSC	Non-Structural Carbohydrates	13.22	%
NFC	Non-Fiber Carbohydrates	21.65	%
Digestibility		100% DM l	basis
IVTDMD48h	in-vitro True DM Digestibility 48h	82.56	%
NDFD48h	Neutral Detergent Fiber Digestibility 48h	66.00	%

<sup>&</sup>lt;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.

opy Analysis (NIRS) <sup>1</sup>					
Fat		100% DM basis			
Fat	Fat	3.39 %			
Minerals		100% DM basis			
Ash	Ash	5.35 %			
Ca	Calcium	0.46 %			
Р	Phosphorus	0.31 %			
Mg	Magnesium	0.22 %			
K	Potassium	2.24 %			
<b>Energy Calculations</b>		100% DM basis			
TDN	Total Digestible Nutrients	66.99 %			
DE	Digestible Energy	1.88 MCal/kg			
$NE_{m}$	Net Energy Maintenance	0.70 MCal/lb			
$NE_g$	Net Energy Gain	0.43 MCal/lb			
NEı	Net Energy Lacatation	0.68 MCal/lb			
Components		Wet Chemistry			
рН	Ensiled	рН			
NO <sub>3</sub>	Nitrates	ppm²			
Calculated Parameters <sup>3</sup>		Scale			
RFQ	Relative Forage Quality	119			
RFV	Relative Feed Value	0			

 $<sup>^{2}</sup>ppm = mg/kg$ 

<sup>&</sup>lt;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

# Forage Analysis Report

GREGORY MOCK 157 ETT BROWN ROAD DEER LODGE, TN 37726

County: Morgan

Email: GDM1951@GMAIL.COM

Sample ID: Thad OG Lab Number: 117033 Reported: 10/8/2025

Type: Hay

Forage Species (Identified by Client): Orchardgrass

# **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 <u>utbeef.com</u>.

## **Crude Protein (CP)**

Your Sample - 14.82%

Low Medium Good Excellent

Low = <8% | Medium = 8% to 10.9% | Good = 11% to 13.9% | Excellent =  $\ge14\%$ 

## **Total Digestible Nutrients (TDN)**

Your Sample - 66.99%

Low Medium Good Excellent

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

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

## **Payment Details**

Receipt:

Amount: \$17.00 Method: 106

Payment Date: 10/6/2025

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.

 $<sup>^{1}</sup>$  ppm = mg/kg