



Soil, Plant & Pest Center

5201 Marchant Dr. | Nashville, TN 37211
615.832.5850 | SoilLab@Tennessee.edu
soillab.tennessee.edu



Forage Analysis Report

DAVID JONES
1056 HWY 131
THORN HILL, TN 37881

County : Hancock
Email : KSEAL2@UTK.EDU

SampleID	APRIL1	Type	Hay
Lab ID#	111051	Species	Mixed Grasses
Reported	5/7/2021	Clover	No

NIRS - Near-Infrared Spectroscopy Analysis*

Moisture - <i>as received</i>	25 %
Dry Matter (DM) - <i>as received</i>	75 %
Ash	4.39 %
Crude Protein (CP)	18.94 %
Lysine	0.66 %
Fat	2.35 %
Relative Forage Quality (RFQ)	149
Ensiled pH - <i>Wet Chemistry</i>	

Calculated Energy Values

Digestible Energy (DE)	2.86 MCal/kg
Total Digestible Nutrients (TDN)	73.53 %
Net Energy Maintenance (NE _m)	0.79 MCal/lb
Net Energy Gain (NE _g)	0.51 MCal/lb
Net Energy Lactation (NE _l)	0.76 MCal/lb

Minerals - NIRS

Calcium (Ca)	%
Phosphorus (P)	%
Magnesium (Mg)	%
Potassium (K)	%

Carbohydrates

Acid Detergent Fiber (ADF)	23.95 %
Neutral Detergent Fiber (NDF)	48.11 %
Lignin	2.31 %
<i>In-vitro</i> True DM Digestibility 48H (IVTDM48h)	87.12 %
Fructan	2.41 %
Starch	2.35 %
Sugar (ESC)	13.52 %
Water Soluble Carbohydrates (WSC)	14.75 %
Non-Structural Carbohydrates (NSC)	17.10 %
Non-Fiber Carbohydrates (NFC)	26.21 %

Minerals and Nitrate - Wet Chemistry

Calcium (Ca)	0.51 %
Phosphorus (P)	0.30 %
Magnesium (Mg)	0.28 %
Potassium (K)	1.69 %
Sulfur (S)	0.16 %
Copper (Cu)	5 ppm
Zinc (Zn)	19 ppm
Manganese (Mn)	149 ppm
Iron (Fe)	43 ppm
Boron (B)	4 ppm
Nitrate (NO ₃)	117 ppm

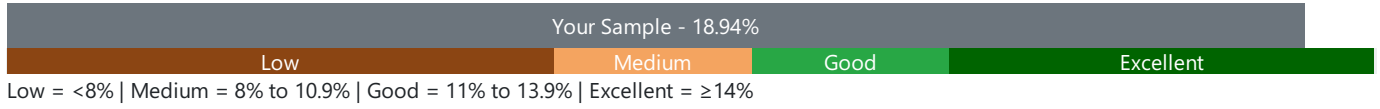
*All values reported on a 100% DM Basis, unless otherwise noted.

ppm = mg/kg

Forage Analysis Report

Understanding your 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 the following website for definition information. <http://tiny.utk.edu/FA-Definitions>

Crude Protein



TDN

