Soil, Plant & Pest Center
5201 Marchant Dr. | Nashville, TN 37211
615.832.5820 | SoilLab@Tennessee.edu
soillab.tennessee.edu

UT EXTENSION
INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

Forage Analysis Report

David Jones Jones Hay Company
1056 Highway 131
Thorn Hill , TN 37881

County : Hancock
Email : davidjones1955@hotmail.com

SampleID	JULY	**Type**	Hay
Lab ID#	109301	**Species**	Mixed Grasses
Reported	7/22/2019	**Clover**	No

NIRS - Near-Infared Spectroscopy Analysis*

Moisture - *as received*	14	%
Dry Matter (DM) - *as received*	86	%
Ash	5.77	%
Crude Protein (CP)	19.80	%
Lysine	0.69	%
Fat	3.03	%
Relative Forage Quality (RFQ)	124	
Ensiled pH - *Wet Chemistry*		

Calculated Energy Values

Digestible Energy (DE)	2.66	MCal/kg
Total Digestible Nutrients (TDN)	68.92	%
Net Energy Maintenance (NE_m)	0.73	MCal/lb
Net Energy Gain (NE_g)	0.45	MCal/lb
Net Energy Lacatation (NE_l)	0.71	MCal/lb

Minerals - NIRS

Calcium (Ca)	0.47	%
Phosphorus (P)	0.29	%
Magnesium (Mg)	0.26	%
Potassium (K)	2.51	%

Carbohydrates

Acid Detergent Fiber (ADF)	28.34	%
Neutral Detergent Fiber (NDF)	54.05	%
Lignin	3.19	%
In-vitro True DM Digestibility 48H (IVTDMD48h)	82.06	%
Fructan	1.51	%
Starch	2.31	%
Sugar (ESC)	11.46	%
Water Soluble Carbohydrates (WSC)	11.92	%
Non-Structural Carbohydrates (NSC)	14.23	%
Non-Fiber Carbohydrates (NFC)	17.35	%

Minerals and Nitrate - Wet Chemistry

Calcium (Ca)		%
Phosphorus (P)		%
Magnesium (Mg)		%
Potassium (K)		%
Sulfur (S)		%
Copper (Cu)		ppm
Zinc (Zn)		ppm
Manganese (Mn)		ppm
Iron (Fe)		ppm
Boron (B)		ppm
Nitrate (NO_3)	932	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

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

TDN

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