



CUMBERLAND VALLEY ANALYTICAL SERVICES

"Laboratory services for agriculture ... from the field to the feed bunk"

Farm: **HICKS HAY LLC**
Desc: **ALFALFA/ORCHARD GRASS MIX**
Submitter: **HICKS, PETER**
Account: **HICKS HAY CO.**

Copies to:

Lab ID: **31849 180**
Sampled: **03/09/2022**
Arrived: **03/11/2022**
Completed: **03/11/2022**
Reported: **03/11/2022**

ALFALFA/ORCHARD GRASS MIX

SAMPLE INFORMATION

Lab ID: 31849 180 Version: 1.0
Crop Year: 2021 Series:
Feed Type: MIXED FORAGE Cutting#:
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 12.6
Dry Matter 87.4

PROTEINS

	% SP	% CP	% DM
Crude Protein			15.6
Adjusted Protein			15.6
Soluble Protein		36.5	5.7
Ammonia (CPE)	16.5	6.0	0.94
ADF Protein (ADICP)		8.9	1.39
NDF Protein (NDICP)		18.2	2.85
NDR Protein (NDRCP)			
Rumen Degr. Protein		68.3	10.7
Amino Acid Protein, Total			

FIBER

	% NDF	% DM
ADF	71.7	35.2
aNDF		49.1
aNDFom		48.4
NDR (NDF w/o sulfite)		
Crude Fiber		
Lignin	13.3	6.52
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (72 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (12 hr)		
uNDF (30 hr)		
uNDF (120 hr)		
uNDF (240 hr)		

CARBOHYDRATES

	% Starch	% NFC	% DM
Ethanol Soluble CHO (ESC-Sugar)		26.4	6.8
Water Soluble CHO (WSC-Sugar)			8.8
Starch	6.9	1.8	
Soluble Starch			
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Crude Fat			2.41
Fatty Acids, Total			
C16:0			
C18:0			
C18:1			
C18:2			
C18:3			
Unsaturated Fatty Acids (RUFAL)			
Fatty Acids (%Fat)			

MINERALS

Ash (%DM)	9.89
Calcium (%DM)	0.92
Phosphorus (%DM)	0.31
Magnesium (%DM)	0.20
Potassium (%DM)	3.33
Sulfur (%DM)	
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Molybdenum (PPM)	

QUALITATIVE

pH
Total VFA (%DM)
Lactic Acid (%DM)
Lactic as % of Total VFA
Acetic Acid (%DM)
Butyric Acid (%DM)
1, 2 Propanediol (%DM)
Nitrate Ion (%DM)
Nitrate-Nitrogen, ppm

Soil Contamination Probability
NIR Statistical Confidence

ENERGY & INDEX CALCULATIONS

Equine TDN (%DM)	50.6
Equine DE (Mcal/lb)	1.01
Net Energy Lactation (Mcal/lb)	0.58
Net Energy Maintenance (Mcal/lb)	0.56
Net Energy Gain (Mcal/lb)	0.31
ME (Mcal/lb)	0.95
AA Protein as % of Total Protein	
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	
NDF Dig. Rate (Kd, %HR, uNDF)	4.6
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	117
Relative Forage Quality (RFQ)	
Milk per Ton (lbs/ton)	
Dig. Organic Matter Index (lbs/ton)	
Non Fiber Carbohydrates (%DM)	25.8
Non Structural Carbohydrates, ESC (%DM)	8.6
Non Structural Carbohydrates, WSC (%DM)	10.6
DCAD (meq/100gdm)	
Summative Index % (Mass Balance)	

Additional sample information, submitted documents and lab pictures linked to QR code



Values in bold were analyzed by wet chemistry methods.



Cumberland Valley Analytical Services, Inc.



4999 Zane A. Miller Drive, Waynesboro, PA 17268
www.foragelab.com | mail@foragelab.com | 301-790-1980 | 800-CVAS-LAB

