



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: HICKS HAY LLC
Desc: ORCHARD GRASS
Submitter: HICKS, PETER
Account: HICKS HAY CO.

Copies to:

Lab ID: 31849 171
Sampled: 03/09/2022
Arrived: 03/11/2022
Completed: 03/11/2022
Reported: 03/11/2022

ORCHARD GRASS

SAMPLE INFORMATION

Lab ID: 31849 171 Version: 1.0
Crop Year: 2021 Series:
Feed Type: ORCHARD GRASS Cutting#:
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 10.0
Dry Matter 90.0

PROTEINS

	% SP	% CP	% DM
Crude Protein			8.3
Adjusted Protein		92.8	7.7
Soluble Protein		33.9	2.8
Ammonia (CPE)	41.8	14.2	1.18
ADF Protein (ADICP)		14.4	1.20
NDF Protein (NDICP)		28.2	2.34
NDR Protein (NDRCP)			
Rumen Degr. Protein		67.0	5.6
Amino Acid Protein, Total			

FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			63.5	40.4
aNDF		62.3		63.7
NDR (NDF w/o sulfite)				
Crude Fiber				
Lignin			9.21	5.86
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	51.3	32.0	50.4	32.1
NDF Digestibility (72 hr)				
NDF Digestibility (120 hr)	57.7	36.0	56.6	36.0
NDF Digestibility (240 hr)	60.1	37.5	59.0	37.6
uNDF (12 hr)				
uNDF (30 hr)	48.7	30.3	49.6	31.6
uNDF (120 hr)	42.3	26.3	43.4	27.6
uNDF (240 hr)	39.9	24.8	41.0	26.1

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids			
Ethanol Soluble CHO (ESC-Sugar)		30.4	6.5
Water Soluble CHO (WSC-Sugar)			10.5
Starch		8.0	1.7
Soluble Starch			
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Crude Fat			2.21
Fatty Acids, Total			0.83
C16:0			0.17
C18:0			0.02
C18:1			0.04
C18:2			0.18
C18:3			0.33
Unsaturated Fatty Acids (RUFAL)			0.55
Fatty Acids (%Fat)			37.6

MINERALS

Ash (%DM)	6.77
Calcium (%DM)	0.56
Phosphorus (%DM)	0.19
Magnesium (%DM)	0.18
Potassium (%DM)	2.18
Sulfur (%DM)	0.18
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 Probable low to none

NIR Statistical Confidence Excellent prediction potential

ENERGY & INDEX CALCULATIONS

TDN (%DM)	56.6
Net Energy Lactation (Mcal/lb)	0.57
Net Energy Maintenance (Mcal/lb)	0.55
Net Energy Gain (Mcal/lb)	0.30
ME (Mcal/lb)	0.94
AA Protein as % of Total Protein	
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	3.28
NDF Dig. Rate (Kd, %HR, uNDF)	4.9
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	84
Relative Forage Quality (RFQ)	101
Milk per Ton (lbs/ton)	2500
Dig. Organic Matter Index (lbs/ton)	1132
Non Fiber Carbohydrates (%DM)	21.4
Non Structural Carbohydrates, ESC (%DM)	8.2
Non Structural Carbohydrates, WSC (%DM)	12.2
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.



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