



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: HUBKA FARMS LTD
Desc: 18B702 ALFALFA
Submitter: HUBKA, CALE
Account: HUBKA FARMS LTD

Copies to: WHITTLE, CHRIS

Lab ID: 25950 014
Sampled: 02/20/2019
Arrived: 03/21/2019
Completed: 03/22/2019
Reported: 03/22/2019

18B702 ALFALFA

SAMPLE INFORMATION

Lab ID: 25950 014 Version: 1.0
Crop Year: 2018 Series:
Feed Type: LEGUME FORAGE Cutting#: 2
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 13.0
Dry Matter 87.0

PROTEINS

	% SP	% CP	% DM
Crude Protein			20.5
Adjusted Protein			
Soluble Protein		43.2	8.9
Ammonia (CPE)	8.3	3.6	0.74
ADF Protein (ADICP)		6.5	1.33
NDF Protein (NDICP)		10.1	2.07
NDR Protein (NDRCP)			
Rumen Degr. Protein		71.6	14.7
Rumen Deg. CP (Strep.G)			

FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			85.4	28.1
aNDF		32.6		32.9
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			18.6	6.14
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	43.9	14.3	43.4	14.3
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	46.1	15.0	45.7	15.1
NDF Digestibility (240 hr)	48.2	15.7	47.7	15.7
uNDF (30 hr)	56.1	18.3	56.6	18.6
uNDF (120 hr)	54.0	17.6	54.3	17.9
uNDF (240 hr)	51.8	16.9	52.3	17.2

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids			
Ethanol Soluble CHO (Sugar)		21.8	7.5
Water Soluble CHO (Sugar)			9.4
Starch		0.6	0.2
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.15
Fatty Acids (%Fat)			50.4
Crude Fat			2.28

MINERALS

Ash (%DM)	11.8
Calcium (%DM)	1.88
Phosphorus (%DM)	0.25
Magnesium (%DM)	0.32
Potassium (%DM)	3.32
Sulfur (%DM)	0.33
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

QUALITATIVE

Total VFA (%DM)	
Lactic Acid (%DM)	
Lactic as % of Total VFA	
Acetic Acid (%DM)	
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Soil Contamination Probability	Probable low to none
Nitrate Probability	Probable low nitrate level
NIR Statistical Confidence	Excellent prediction potential

ENERGY & INDEX CALCULATIONS

pH	
TDN (%DM)	62.7
Net Energy Lactation (Mcal/lb)	0.63
Net Energy Maintenance (Mcal/lb)	0.62
Net Energy Gain (Mcal/lb)	0.35
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.67
NDF Dig. Rate (Kd, %HR, uNDF)	5.4
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	189
Relative Forage Quality (RFQ)	177
Milk per Ton (lbs/ton)	2943
Dig. Organic Matter Index (lbs/ton)	1210
Non Fiber Carbohydrates (%DM)	34.50
Non Structural Carbohydrates (%DM)	7.7
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	7.2
Summative Index % (Mass Balance)	
Additional sample information, source and lab pictures	



Values in bold were analyzed by wet chemistry methods.

Definitions and explanation of report terms



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Fatty Acid Profile Analysis Report

NIR Analysis of Hay*

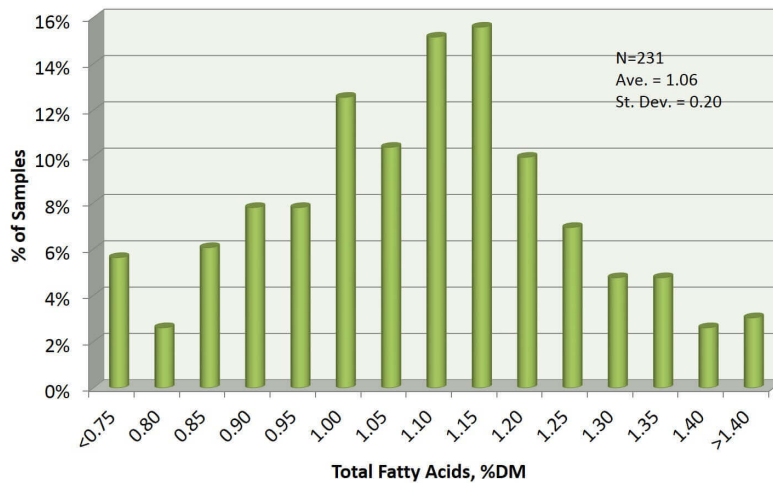
Fat (ether extract)	2.28 % DM
Total Fatty Acids	1.15 % DM
Fatty Acid as % Ether Extract	50.4 %

Fatty Acid Content (selected key fatty acids):

16:0	Palmitic Acid	0.35 % DM
18:0	Stearic Acid	0.06 % DM
18:1	Oleic Acid	0.03 % DM
18:2	Linoleic Acid	0.20 % DM
18:3	Linolenic Acid	0.34 % DM
Total Unsaturated Fatty Acids (RUFAL)		0.57 % DM

* For critical evaluation request fatty acid analysis by chemistry methods

Total Unsaturated Fatty Acids in Production Hay CVAS, 2018



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