



# CUMBERLAND VALLEY ANALYTICAL SERVICES

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

**Farm:** HUBKA FARMS LTD.  
**Desc:** 221K131 1ST CUT MIXED HAY  
**Submitter:** HUBKA, CALE  
**Account:** HUBKA FARMS LTD

**Copies to:** WHITTLE, CHRIS

**Lab ID:** 32496 337  
**Sampled:** 08/01/2022  
**Arrived:** 08/05/2022  
**Completed:** 08/08/2022  
**Reported:** 08/08/2022

## 221K131 1ST CUT MIXED HAY

### SAMPLE INFORMATION

Lab ID: 32496 337      Version: 1.0  
Crop Year: 2022      Series:  
Feed Type: MIXED FORAGE      Cutting#: 1  
Package: BASIC NIR

### NIR ANALYSIS RESULTS

Moisture 11.4  
Dry Matter 88.6

### PROTEINS

	% SP	% CP	% DM
Crude Protein			10.0
Adjusted Protein		91.0	9.1
Soluble Protein		36.4	3.6
Ammonia (CPE)	40.1	14.6	1.45
ADF Protein (ADICP)		16.4	1.63
NDF Protein (NDICP)		40.5	4.03
NDR Protein (NDRCP)			
Rumen Degr. Protein		68.2	6.8
Amino Acid Protein, Total			

### FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			62.2	42.1
aNDF		62.3		67.7
NDR (NDF w/o sulfite)				
Crude Fiber				
Lignin			9.31	6.30
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	47.5	29.6	43.7	29.6
NDF Digestibility (72 hr)				
NDF Digestibility (120 hr)	51.6	32.1	47.3	32.0
NDF Digestibility (240 hr)	55.4	34.5	51.0	34.5
uNDF (12 hr)				
uNDF (30 hr)	52.5	32.7	56.3	38.1
uNDF (120 hr)	48.4	30.2	52.7	35.6
uNDF (240 hr)	44.6	27.8	49.0	33.2

### CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids			
Ethanol Soluble CHO (ESC-Sugar)		36.8	6.3
Water Soluble CHO (WSC-Sugar)			8.3
Starch		12.4	2.1
Soluble Starch			
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Crude Fat			2.28
Fatty Acids, Total			0.58
C16:0			0.16
C18:0			0.01
C18:1			0.04
C18:2			0.15
C18:3			0.11
Unsaturated Fatty Acids (RUFAL)			0.30
Fatty Acids (%Fat)			25.4

### MINERALS

Ash (%DM)	6.95
Calcium (%DM)	0.54
Phosphorus (%DM)	0.15
Magnesium (%DM)	0.18
Potassium (%DM)	1.72
Sulfur (%DM)	0.21
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

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Soil Contamination Probability      Probable low to none  
NIR Statistical Confidence      Good prediction potential

### ENERGY & INDEX CALCULATIONS

TDN (%DM)	54.7
Net Energy Lactation (Mcal/lb)	0.55
Net Energy Maintenance (Mcal/lb)	0.52
Net Energy Gain (Mcal/lb)	0.26
ME (Mcal/lb)	0.9
AA Protein as % of Total Protein	
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	2.65
NDF Dig. Rate (Kd, %HR, uNDF)	4.8
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	77
Relative Forage Quality (RFQ)	89
Milk per Ton (lbs/ton)	2053
Dig. Organic Matter Index (lbs/ton)	1070
Non Fiber Carbohydrates (%DM)	17.2
Non Structural Carbohydrates, ESC (%DM)	8.4
Non Structural Carbohydrates, WSC (%DM)	10.4
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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