



# CUMBERLAND VALLEY ANALYTICAL SERVICES

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

**Farm:** HUBKA FARMS  
**Desc:** 201S311 1ST CUT ALFALFA  
**Submitter:** HUBKA, CALE  
**Account:** HUBKA FARMS LTD

**Copies to:** WHITTLE, CHRIS

**Lab ID:** 28775 047  
**Sampled:** 07/07/2020  
**Arrived:** 07/09/2020  
**Completed:** 07/10/2020  
**Reported:** 07/10/2020

## 201S311 1ST CUT ALFALFA

### SAMPLE INFORMATION

Lab ID: 28775 047      Version: 1.0  
Crop Year: 2020      Series:  
Feed Type: LEGUME FORAGE      Cutting#: 1  
Package: BASIC NIR

### NIR ANALYSIS RESULTS

Moisture 12.3  
Dry Matter 87.7

### PROTEINS

|                           | % SP | % CP | % DM |
|---------------------------|------|------|------|
| Crude Protein             |      |      | 14.5 |
| Adjusted Protein          |      |      |      |
| Soluble Protein           |      | 49.1 | 7.1  |
| Ammonia (CPE)             | 15.9 | 7.8  | 1.13 |
| ADF Protein (ADICP)       |      | 8.7  | 1.26 |
| NDF Protein (NDICP)       |      | 9.9  | 1.44 |
| NDR Protein (NDRCP)       |      |      |      |
| Rumen Degr. Protein       |      | 74.6 | 10.8 |
| Amino Acid Protein, Total |      |      |      |

### FIBER

|                            | %NDFom | NDFom %DM | % NDF | % DM |
|----------------------------|--------|-----------|-------|------|
| ADF                        |        |           | 74.2  | 38.7 |
| aNDF                       |        | 51.7      |       | 52.2 |
| NDR (NDF w/o sulfite)      |        |           |       |      |
| Crude Fiber                |        |           |       |      |
| Lignin                     |        |           | 16.6  | 8.67 |
| NDF Digestibility (12 hr)  |        |           |       |      |
| NDF Digestibility (24 hr)  |        |           |       |      |
| NDF Digestibility (30 hr)  | 37.2   | 19.2      | 36.7  | 19.2 |
| NDF Digestibility (72 hr)  |        |           |       |      |
| NDF Digestibility (120 hr) | 48.4   | 25.0      | 48.0  | 25.0 |
| NDF Digestibility (240 hr) | 51.1   | 26.4      | 50.5  | 26.4 |
| uNDF (12 hr)               |        |           |       |      |
| uNDF (30 hr)               | 62.9   | 32.5      | 63.3  | 33.0 |
| uNDF (120 hr)              | 51.6   | 26.7      | 52.0  | 27.2 |
| uNDF (240 hr)              | 48.9   | 25.3      | 49.5  | 25.8 |

### CARBOHYDRATES

|                                 | % Starch | % NFC | % DM |
|---------------------------------|----------|-------|------|
| Silage Acids                    |          |       |      |
| Ethanol Soluble CHO (ESC-Sugar) |          | 20.2  | 5.2  |
| Water Soluble CHO (WSC-Sugar)   |          |       | 9.3  |
| Starch                          |          | 9.5   | 2.4  |
| Soluble Starch                  |          |       |      |
| Soluble Fiber                   |          |       |      |
| Starch Dig. (7 hr, 4 mm)        |          |       |      |
| Crude Fat                       |          |       | 1.92 |
| Fatty Acids, Total              |          |       | 1.09 |
| C16:0                           |          |       | 0.27 |
| C18:0                           |          |       | 0.05 |
| C18:1                           |          |       | 0.03 |
| C18:2                           |          |       | 0.19 |
| C18:3                           |          |       | 0.29 |
| Unsaturated Fatty Acids (RUFAL) |          |       | 0.51 |
| Fatty Acids (%Fat)              |          |       | 56.8 |

### MINERALS

|                  |      |
|------------------|------|
| Ash (%DM)        | 7.02 |
| Calcium (%DM)    | 1.02 |
| Phosphorus (%DM) | 0.22 |
| Magnesium (%DM)  | 0.23 |
| Potassium (%DM)  | 2.20 |
| Sulfur (%DM)     | 0.22 |
| 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)

Soil Contamination Probability      Probable low to none

Nitrate Probability      Probable moderate nitrate level

NIR Statistical Confidence      Excellent prediction potential

### ENERGY & INDEX CALCULATIONS

|  |       |
|--|-------|
| TDN (%DM)  | 55.2  |
| Net Energy Lactation (Mcal/lb)                   | 0.56  |
| Net Energy Maintenance (Mcal/lb)                 | 0.53  |
| Net Energy Gain (Mcal/lb)                        | 0.27  |
| ME (Mcal/lb)                                     | 0.91  |
| AA Protein as % of Total Protein                 |       |
| NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4) | 3.00  |
| NDF Dig. Rate (Kd, %HR, uNDF)                    | 3.5   |
| Starch Dig. Rate (Kd, %HR, Mertens)              |       |
| Relative Feed Value (RFV)                        | 105   |
| Relative Forage Quality (RFQ)                    | 100   |
| Milk per Ton (lbs/ton)                           | 2246  |
| Dig. Organic Matter Index (lbs/ton)              | 1061  |
| Non Fiber Carbohydrates (%DM)                    | 25.50 |
| Non Structural Carbohydrates (%DM)               | 7.6   |
| 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.



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