



DM SCIENTIFIC

An Affiliate of Cumberland Valley Analytical Services

Farm: HARPER ADAMS (CARRS BILLINGTON)
Desc: 1ST CUT
Submitter: MACMILLAN, DAVID
Account: DM SCIENTIFIC

Copies to: SMITH, GRACE

Lab ID: 39057 258
Sampled: 06/08/2026
Arrived: 06/12/2026
Completed: 06/12/2026
Reported: 06/12/2026

1ST CUT

SAMPLE INFORMATION

Lab ID: 39057 258 Version: 1.0
 Crop Year: Series:
 Feed Type: MIXED FORAGE Cutting#:
 Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 74.7
 Dry Matter 25.3

PROTEINS % SP % CP % DM

Crude Protein 14.8
 Adjusted Protein 14.8
 Soluble Protein 59.5 8.8
 Ammonia (CPE) 11.7 7.0 1.03
 ADF Protein (ADICP) 2.3 0.34
 NDF Protein (NDICP) 11.8 1.75
 NDR Protein (NDRCP)
 Rumen Degr. Protein 79.7 11.8
 Amino Acid Protein, Total 70.9 10.50

FIBER % NDF % DM

ADF 60.5 25.7
 aNDF 42.5
 aNDFom 41.9
 NDR (NDF w/o sulfite)
 Crude Fiber
 Lignin 4.35 1.85
 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 (Sugar) 18.5 6.1
 Water Soluble CHO (Sugar) 11.0
 Starch 4.3 1.4
 Soluble Starch
 Soluble Fiber
 Starch Dig. (7 hr, 4 mm)
 Crude Fat 3.89
 Fatty Acids, Total
 C16:0
 C18:0
 C18:1
 C18:2
 C18:3
 Unsaturated Fatty Acids (RUFAL)
 Fatty Acids (%Fat)

MINERALS

Ash (%DM) 7.42
 Calcium (%DM) 0.51
 Phosphorus (%DM) 0.32
 Magnesium (%DM) 0.18
 Potassium (%DM) 3.24
 Sulfur (%DM) 0.23
 Sodium (%DM)
 Chloride (%DM)
 Iron (PPM)
 Manganese (PPM)
 Zinc (PPM)
 Copper (PPM)
 Molybdenum (PPM)

QUALITATIVE

pH 4.15
 Total VFA (%DM) 9.70
 Lactic Acid (%DM) 8.81
 Lactic as % of Total VFA 91
 Acetic Acid (%DM) 0.89
 Butyric Acid (%DM)
 1, 2 Propanediol (%DM)
 Nitrate Ion (%DM)

Soil Contamination Probability
 NIR Statistical Confidence

ENERGY & INDEX CALCULATIONS

TDN (%DM) 71.9
 Net Energy Lactation (mj/kg) 6.86
 Net Energy Maintenance (mj/kg) 7.63
 Net Energy Gain (mj/kg) 4.99
 ME (mj/kg DM) 11.51
 AA Protein as % of Total Protein 70.9
 NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)
 NDF Dig. Rate (Kd, %HR, uNDF) 5.5
 Starch Dig. Rate (Kd, %HR, Mertens)
 Relative Feed Value (RFV) 151
 Relative Forage Quality (RFQ)
 Milk per Ton (kg/tonne) 1884
 Milk per Ton 2024 (kg/tonne)
 Dig. Organic Matter Index (kg/tonne)
 Non Fiber Carbohydrates (%DM) 33.1
 Non Structural Carbohydrates, ESC (%DM) 7.5
 Non Structural Carbohydrates, WSC (%DM) 12.4
 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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