



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: **WEAVER FALLS**
Desc: **CORN SILAGE**
Submitter: **CVAS**
Account: **CVA-001**

Copies to:

Lab ID: **26833 096**
Sampled: **08/19/2019**
Arrived: **08/21/2019**
Completed: **08/21/2019**
Reported: **08/21/2019**

CORN - MID

SAMPLE INFORMATION

Lab ID: 26833 096 Version: 1.0
Crop Year: 2019 Series:
Feed Type: CORN SILAGE Cutting#:
Package: NIR Wet Minerals, Cl, S

NIR ANALYSIS RESULTS

Moisture 60.5
Dry Matter 39.5

PROTEINS

	% SP	% CP	% DM
Crude Protein			7.1
Adjusted Protein			
Soluble Protein		49.4	3.5
Ammonia (CPE)	15.9	7.8	0.56
ADF Protein (ADICP)		10.6	0.76
NDF Protein (NDICP)		12.5	0.89
NDR Protein (NDRCP)			
Rumen Degr. Protein		74.7	5.3

FIBER

	%NDFom	NDFom %DM	% NDF	% DM
ADF			64.7	22.8
aNDF		34.5		35.2
NDR (NDF w/o sulfite)				
Crude Fiber				
Lignin			8.00	2.82
NDF Digestibility (12 hr)			30.9	10.9
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	55.4	19.1	54.4	19.2
NDF Digestibility (72 hr)				
NDF Digestibility (120 hr)	67.3	23.2	65.9	23.2
NDF Digestibility (240 hr)	70.1	24.2	68.7	24.2
uNDF (30 hr)	44.6	15.4	45.6	16.1
uNDF (120 hr)	32.8	11.3	34.1	12.0
uNDF (240 hr)	29.9	10.3	31.3	11.0

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		10.9	5.5
Ethanol Soluble CHO (ESC-Sugar)		3.0	1.5
Water Soluble CHO (WSC-Sugar)			1.8
Starch		70.3	35.7
Soluble Starch			
Soluble Fiber		11.8	5.98
Starch Dig. (7 hr, 4 mm)	73.5		
Crude Fat			3.37
Fatty Acids, Total			2.76
C16:0			0.47
C18:0			0.06
C18:1			0.65
C18:2			1.32
C18:3			0.11
Unsaturated Fatty Acids (RUFAL)			2.08
Fatty Acids (%Fat)			81.9

MINERALS

Ash (%DM) 4.36
Calcium (%DM) 0.14
Phosphorus (%DM) 0.27
Magnesium (%DM) 0.10
Potassium (%DM) 1.32
Sulfur (%DM) 0.11
Sodium (%DM) 0.01
Chloride (%DM) 0.23
Iron (PPM) 116
Manganese (PPM) 24
Zinc (PPM) 20
Copper (PPM) 4
Molybdenum (PPM)

QUALITATIVE

Total VFA (%DM) 5.54
Lactic Acid (%DM) 4.30
Lactic as % of Total VFA 78
Acetic Acid (%DM) 1.24
Butyric Acid (%DM)
1, 2 Propanediol (%DM) 0.19
Nitrate Ion (%DM)

Soil Contamination Probability Probable low to none
Nitrate Probability Probable low nitrate level
NIR Statistical Confidence Excellent prediction potential

ENERGY & INDEX CALCULATIONS

pH 3.75
TDN (%DM) 74.4
Net Energy Lactation (Mcal/lb) 0.77
Net Energy Maintenance (Mcal/lb) 0.79
Net Energy Gain (Mcal/lb) 0.51
ME (Mcal/lb) 2.9
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4) 3.51
NDF Dig. Rate (Kd, %HR, uNDF) 4.4
Starch Dig. Rate (Kd, %HR, Mertens) 20.1
Relative Feed Value (RFV)
Relative Forage Quality (RFQ)
Milk per Ton (lbs/ton) 3096
Dig. Organic Matter Index (lbs/ton)
Non Fiber Carbohydrates (%DM) 50.80
Non Structural Carbohydrates (%DM) 37.2
DCAD (meq/100gdm) 20.9
RFC - Fill Index 3.43
Summative Index % (Mass Balance) 97.5

Additional sample information, submitted documents and lab pictures linked to QR code.



Values in bold were analyzed by wet chemistry methods.



Cumberland Valley Analytical Services, Inc.



4999 Zane A. Miller Drive, Waynesboro, PA 17268
www.foragelab.com | mail@foragelab.com | 301-790-1980 | 800-CVAS-LAB