



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: **APPLE VALLEY**
Desc: **CORN SILAGE**
Submitter: **WARD, RALPH**
Account: **CVAS**

Copies to:

Lab ID: **12345 142**
Sampled:
Arrived: **03/29/2021**
Completed: **03/29/2021**
Reported: **03/29/2021**

CORN SILAGE

SAMPLE INFORMATION

Lab ID: 12345 142 Version: 1.0
Crop Year: 2020 Series:
Feed Type: CORN SILAGE Cutting#:
Package: NIR Wet Minerals, Cl, S

NIR ANALYSIS RESULTS

Moisture 66.2
Dry Matter 33.8

PROTEINS

	% SP	% CP	% DM
Crude Protein			7.3
Adjusted Protein			
Soluble Protein		55.9	4.1
Ammonia (CPE)	22.8	12.7	0.93
ADF Protein (ADICP)		9.5	0.69
NDF Protein (NDICP)		12.1	0.88
NDR Protein (NDRCP)			
Rumen Degr. Protein		77.9	5.7
Amino Acid Protein, Total		59.9	4.38

FIBER

	%NDFom	NDFom %DM	% NDF	% DM
ADF			62.8	25.3
aNDF		39.8		40.2
NDR (NDF w/o sulfite)				
Crude Fiber				
Lignin			5.99	2.41
NDF Digestibility (12 hr)	38.0	15.1	38.6	15.5
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	62.8	25.0	62.3	25.1
NDF Digestibility (72 hr)				
NDF Digestibility (120 hr)	71.9	28.6	71.1	28.6
NDF Digestibility (240 hr)	74.9	29.8	74.1	29.8
uNDF (12 hr)	62.0	24.7		
uNDF (30 hr)	37.2	14.8	37.7	15.2
uNDF (120 hr)	28.1	11.2	28.9	11.6
uNDF (240 hr)	25.1	10.0	25.9	10.4

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		18.5	8.8
Ethanol Soluble CHO (ESC-Sugar)		2.1	1.0
Water Soluble CHO (WSC-Sugar)			2.9
Starch		74.2	35.3
Soluble Starch			
Soluble Fiber		8.2	3.90
Starch Dig. (7 hr, 4 mm)	79.9		
Crude Fat			2.88
Fatty Acids, Total			2.66
C16:0			0.47
C18:0			0.07
C18:1			0.49
C18:2			1.38
C18:3			0.11
Unsaturated Fatty Acids (RUFAL)			1.98
Fatty Acids (%Fat)			92.4

MINERALS

Ash (%DM)	2.94
Calcium (%DM)	0.21
Phosphorus (%DM)	0.21
Magnesium (%DM)	0.13
Potassium (%DM)	0.93
Sulfur (%DM)	0.10
Sodium (%DM)	0.01
Chloride (%DM)	0.16
Iron (PPM)	115
Manganese (PPM)	22
Zinc (PPM)	21
Copper (PPM)	6
Molybdenum (PPM)	

QUALITATIVE

pH	3.69
Total VFA (%DM)	8.81
Lactic Acid (%DM)	6.09
Lactic as % of Total VFA	69
Acetic Acid (%DM)	2.72
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	0.10
Nitrate Ion (%DM)	
Nitrate-Nitrogen, ppm	

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

ENERGY & INDEX CALCULATIONS

TDN (%DM)	73.7
Net Energy Lactation (Mcal/lb)	0.77
Net Energy Maintenance (Mcal/lb)	0.86
Net Energy Gain (Mcal/lb)	0.57
ME (Mcal/lb)	1.29
AA Protein as % of Total Protein	59.9
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.02
NDF Dig. Rate (Kd, %HR, uNDF)	5.1
Starch Dig. Rate (Kd, %HR, Mertens)	24.4
Relative Feed Value (RFV)	
Relative Forage Quality (RFQ)	
Milk per Ton (lbs/ton)	3506
Dig. Organic Matter Index (lbs/ton)	
Non Fiber Carbohydrates (%DM)	47.5
Non Structural Carbohydrates, ESC (%DM)	36.3
Non Structural Carbohydrates, WSC (%DM)	38.2
DCAD (meq/100gdm)	13.7
RFC - Fill Index	4.00
Summative Index % (Mass Balance)	100.6

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

