



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 006**
Sampled: **03/28/2021**
Arrived: **03/29/2021**
Completed: **03/29/2021**
Reported: **03/29/2021**

CORN SILAGE

SAMPLE INFORMATION

Lab ID: 12345 006 Version: 1.0
Crop Year: 2020 Series:
Feed Type: CORN SILAGE Cutting#:
Package: NIR Wet Minerals

NIR ANALYSIS RESULTS

Moisture 64.5
Dry Matter 35.5

PROTEINS

	% SP	% CP	% DM
Crude Protein			8.4
Adjusted Protein			
Soluble Protein		49.3	4.2
Ammonia (CPE)	22.4	11.0	0.93
ADF Protein (ADICP)		11.0	0.93
NDF Protein (NDICP)		14.0	1.18
NDR Protein (NDRCP)			
Rumen Degr. Protein		74.6	6.3
Amino Acid Protein, Total		66.1	5.56

FIBER

	%NDFom	NDFom %DM	% NDF	% DM
ADF			62.9	23.2
aNDF		36.4		36.8
NDR (NDF w/o sulfite)				
Crude Fiber				
Lignin			7.28	2.68
NDF Digestibility (12 hr)	39.4	14.3	38.7	14.7
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	58.7	21.4	58.3	21.5
NDF Digestibility (72 hr)				
NDF Digestibility (120 hr)	73.3	26.7	72.6	26.7
NDF Digestibility (240 hr)	76.3	27.8	75.7	27.9
uNDF (12 hr)	60.6	22.1		
uNDF (30 hr)	41.3	15.0	41.7	15.4
uNDF (120 hr)	26.7	9.7	27.4	10.1
uNDF (240 hr)	23.7	8.6	24.3	9.0

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		14.1	6.9
Ethanol Soluble CHO (ESC-Sugar)		3.4	1.7
Water Soluble CHO (WSC-Sugar)			3.5
Starch		70.9	34.7
Soluble Starch			
Soluble Fiber		13.2	6.46
Starch Dig. (7 hr, 4 mm)	77.9		
Crude Fat			3.15
Fatty Acids, Total			2.65
C16:0			0.49
C18:0			0.07
C18:1			0.61
C18:2			1.20
C18:3			0.13
Unsaturated Fatty Acids (RUFAL)			1.94
Fatty Acids (%Fat)			84.1

MINERALS

Ash (%DM)	3.79
Calcium (%DM)	0.25
Phosphorus (%DM)	0.24
Magnesium (%DM)	0.14
Potassium (%DM)	1.15
Sulfur (%DM)	0.12
Sodium (%DM)	0.01
Chloride (%DM)	
Iron (PPM)	143
Manganese (PPM)	48
Zinc (PPM)	34
Copper (PPM)	7
Molybdenum (PPM)	

QUALITATIVE

pH	3.96
Total VFA (%DM)	6.89
Lactic Acid (%DM)	3.72
Lactic as % of Total VFA	54
Acetic Acid (%DM)	3.17
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	0.54
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)	73.6
Net Energy Lactation (Mcal/lb)	0.76
Net Energy Maintenance (Mcal/lb)	0.86
Net Energy Gain (Mcal/lb)	0.57
ME (Mcal/lb)	1.28
AA Protein as % of Total Protein	66.1
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	3.82
NDF Dig. Rate (Kd, %HR, uNDF)	4.3
Starch Dig. Rate (Kd, %HR, Mertens)	22.9
Relative Feed Value (RFV)	
Relative Forage Quality (RFQ)	
Milk per Ton (lbs/ton)	3392
Dig. Organic Matter Index (lbs/ton)	
Non Fiber Carbohydrates (%DM)	49.0
Non Structural Carbohydrates, ESC (%DM)	36.4
Non Structural Carbohydrates, WSC (%DM)	38.2
DCAD (meq/100gdm)	
RFC - Fill Index	3.67
Summative Index % (Mass Balance)	99.9

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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