



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: WEAVER FALLS DAIRY
Desc: CORN SILAGE N PIT 1
Submitter: JONES,JOHN
Account: FOUR STATE FEEDS

Copies to:

Lab ID: 22003 023
Sampled: 05/02/2017
Arrived: 05/04/2017
Completed: 05/05/2017
Reported: 05/05/2017

CORN SILAGE N PIT 1

SAMPLE INFORMATION

Lab ID: 22003 023 Version: 1.0
Crop Year: 2016 Series:
Feed Type: CORN SILAGE Cutting#:
Package: NIR Wet Minerals

NIR ANALYSIS RESULTS

Moisture 72.7
Dry Matter 27.3

PROTEINS

	% SP	% CP	% DM
Crude Protein			8.9
Adjusted Protein			
Soluble Protein		69.9	6.2
Ammonia (CPE)	18.8	13.2	1.17
ADF Protein (ADICP)		10.7	0.95
NDF Protein (NDICP)		12.3	1.09
NDR Protein (NDRCP)			
Rumen Degr. Protein		85.0	7.5
Rumen Deg. CP (Strep.G)			

FIBER

	% NDF	% DM
ADF	62.4	30.9
aNDF		49.5
aNDFom		48.1
NDR (NDF w/o sulfite)		
peNDF		
Crude Fiber		
Lignin	7.28	3.60
NDF Digestibility (12 hr)		
NDF Digestibility (24 hr)		
NDF Digestibility (30 hr)		
NDF Digestibility (48 hr)		
NDF Digestibility (120 hr)		
NDF Digestibility (240 hr)		
uNDF (30 hr)		
uNDF (120 hr)		
uNDF (240 hr)		

CARBOHYDRATES

	% Starch	% NFC	% DM
Ethanol Soluble CHO (Sugar)		2.9	1.0
Water Soluble CHO (Sugar)			
Starch	46.9		16.1
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			
Fatty Acids (%Fat)			
Crude Fat			3.25

MINERALS

Ash (%DM)	5.20
Calcium (%DM)	0.22
Phosphorus (%DM)	0.25
Magnesium (%DM)	0.16
Potassium (%DM)	1.32
Sulfur (%DM)	0.12
Sodium (%DM)	0.01
Chloride (%DM)	
Iron (PPM)	200
Manganese (PPM)	27
Zinc (PPM)	21
Copper (PPM)	6
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

ENERGY & INDEX CALCULATIONS

pH	3.35
TDN (%DM)	68.1
Net Energy Lactation (Mcal/lb)	0.70
Schwab/Shaver NEL (Processed)	0.72
Schwab/Shaver NEL (Unprocessed)	0.72
Net Energy Maintenance (Mcal/lb)	0.70
Net Energy Gain (Mcal/lb)	0.43
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	
NDF Dig. Rate (Kd, %HR, uNDF)	
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	
Relative Feed Quality (RFQ)	
Milk per Ton (lbs/ton)	
Dig. Organic Matter Index (lbs/ton)	
Non Fiber Carbohydrates (%DM)	34.3
Non Structural Carbohydrates (%DM)	17.1
DCAD (meq/100gdm)	
CNCPs / CPM Lignin Factor	
Summative Index % (Mass Balance)	
Additional sample information, source and lab pictures	



Values in bold were analyzed by wet chemistry methods.

Definitions and explanation of report terms



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Corn Silage Processing Score

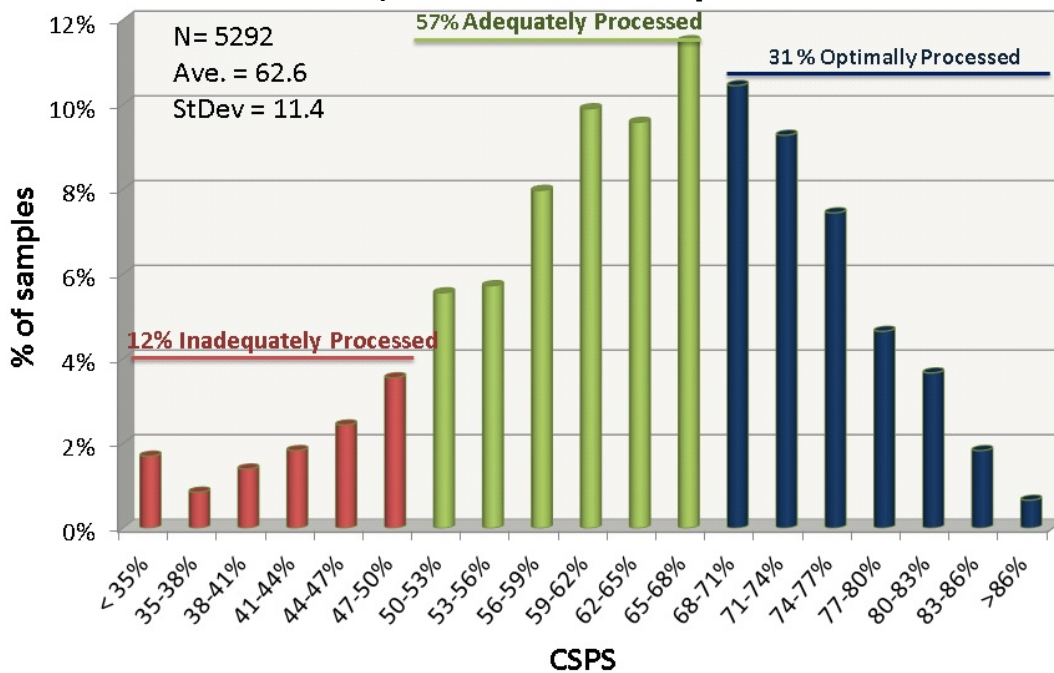
% of starch passing a 4.75mm screen **69.8**

The Corn Silage Processing Score (CSPS) was developed by Dr. Dave Mertens formerly of the USDA Forage Research Center as a tool to define the adequacy of kernel processing by forage harvesters. In addition, the CSPS is a tool that defines starch particle size and can be used to make inference on ruminal and total tract digestibility of corn silage starch. Approximately 600 ml of dried corn silage is sieved in a Ro-Tap Shaker for 10 minutes. This unit oscillates 278 times per minute and "taps" the top of the sieves 150 times per minute to create an aggressive shaking action. Material that passes through the 4.75 mm sieve is collected and analyzed for starch content. The percentage of starch that passes through the screen becomes the "Processing Score".

Guidelines:

- Greater than 70% Optimally Processed
- Between 50% and 70% Adequately Processed
- Less than 50% Inadequately Processed

Distribution of Corn Silage Processing Score CVAS, 2015 - 2016 Crop Years



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