



CUMBERLAND VALLEY ANALYTICAL SERVICES

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

Farm: WEAVER FALLS DAIRY
Desc: TMR PEN 61
Submitter: JONES,JOHN
Account: FOUR STATE FEEDS

Copies to:

Lab ID: 21590 204
Sampled: 03/29/2017
Arrived: 03/31/2017
Completed: 04/01/2017
Reported: 04/01/2017

TMR PEN 61

SAMPLE INFORMATION

Lab ID: 21590 204 Version: 1.0
Crop Year: 2016 Series:
Feed Type: TMR Cutting#:
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 59.3
Dry Matter 40.7

PROTEINS

	% SP	% CP	% DM
Crude Protein			16.4
Adjusted Protein			16.4
Soluble Protein		51.3	8.4
Ammonia (CPE)	11.9	6.1	1.00
ADF Protein (ADICP)		6.7	1.10
NDF Protein (NDICP)		10.5	1.73
NDR Protein (NDRCP)			
Rumen Degr. Protein			
Rumen Deg. CP (Strep.G)			

FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			70.3	17.7
aNDF				25.2
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			14.8	3.73
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)			46.9	11.8
NDF Digestibility (30 hr)				
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)				
NDF Digestibility (240 hr)			64.5	16.2
uNDF (30 hr)				
uNDF (120 hr)				
uNDF (240 hr)			35.5	8.9

CARBOHYDRATES

	% Starch	% NFC	% DM
Ethanol Soluble CHO (Sugar)		11.3	5.6
Water Soluble CHO (Sugar)			
Starch		65.3	31.9
Soluble Fiber			
Starch Dig. (7 hr, 4 mm)	80.7		
Fatty Acids, Total			3.83
Unsaturated Fatty Acids (RUFAL)			2.41
Saturated Fatty Acids			1.42
Crude Fat			4.48

MINERALS

Ash (%DM)	6.70
Calcium (%DM)	0.58
Phosphorus (%DM)	0.46
Magnesium (%DM)	0.26
Potassium (%DM)	1.62
Sulfur (%DM)	0.19
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

QUALITATIVE

Total VFA (%DM)
Lactic Acid (%DM)
Lactic as % of Total VFA
Acetic Acid (%DM)
Butyric Acid (%DM)
1, 2 Propanediol (%DM)

Soil Contamination Probability
Nitrate Probability
NIR Statistical Confidence

ENERGY & INDEX CALCULATIONS

pH	
TDN (%DM)	75.8
Net Energy Lactation (mcal/lb)	0.79
Net Energy Maintenance (mcal/lb)	0.81
Net Energy Gain (mcal/lb)	0.53
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	
NDF Dig. Rate (Kd, %HR, uNDF)	
Starch Dig. Rate (Kd, %HR, Mertens)	25.0
Relative Feed Value (RFV)	
Relative Feed Quality (RFQ)	
Milk per Ton (lbs/ton)	
Dig. Organic Matter Index (lbs/ton)	
Non Fiber Carbohydrates (%DM)	48.9
Non Structural Carbohydrates (%DM)	37.5
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	3.7
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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Fatty Acid Profile Analysis Report

NIR Analysis of TMR *

Fat (ether extract)	4.48 % DM
Total Fatty Acids	3.83 % DM
Fatty Acid as % Ether Extract	85.4 %

Fatty Acid Content (selected key fatty acids):

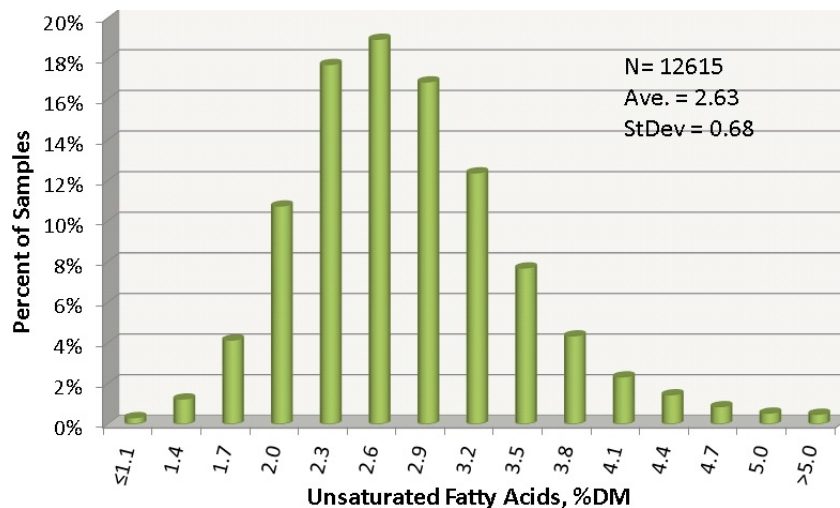
16:0	Palmitic Acid	0.81 % DM
18:0	Stearic Acid	0.19 % DM
18:1	Oleic Acid	0.73 % DM
18:2	Linoleic Acid	1.41 % DM
18:3	Linolenic Acid	0.35 % DM
Total Unsaturated Fatty Acids (RUFAL)		2.49 % DM

Ration Contribution to unsaturated Fatty Acids at dry matter intake

Fatty Acid		DMI		
		49 lbs	53 lbs	57 lbs
18:1	Oleic Acid	102 gm	110 gm	119 gm
18:2	Linoleic Acid	359 gm	388 gm	416 gm
18:3	Linolenic Acid	171 gm	186 gm	198 gm
Total Unsaturated Fatty Acids		632 gm	684 gm	733 gm

* For critical evaluation request fatty acid analysis by chemistry methods

Total Unsaturated Fatty Acids in Production TMR CVAS, 2016



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