



Sender: [REDACTED]
 Evaluator: [REDACTED]
 Sample Number: [REDACTED]
 Product Description: [REDACTED]
 Office ID: [REDACTED]

Chemistry Dry Basis

Results	Sample	Average	Normal Range
Dry Matter	59.35	46.71	37.64-57.98
Crude protein	16.02	16.83	14.7-18.98
ADF	21.48	20.34	15.97-24.82
aNDF	27.33	29.26	24.19-35.32
aNDFom	25.30	27.71	22.67-34.16
Lignin	4.30	3.27	1.85-4.43
Lignin, %NDF _{OM}	17.00	11.18	6.32-15.14
AD-ICP	1.06	0.97	0.54-1.3
AD-ICP, %CP	6.62	5.76	3.21-7.72
ND-ICP	1.60	1.53	0.87-2.04
ND-ICP, % CP	10.02	9.09	5.17-12.12
Soluble Protein	45.32	41.67	30.82-52.75
Starch	25.92	25.42	17.12-32.54
Fat	6.01	4.80	3.3-6.44
Ash	10.93	7.92	6.24-10.22
Sugar, WSC	4.61	5.05	2.07-10.5
Calculated Values			
Adjusted Crude Protein	16.02	16.81	14.65-18.98
NFC	43.35	44.25	38.27-49.66
TDN	71.31	73.65	69.85-77.02
NEI, Mcal/lb	0.740	0.766	0.723-0.803
NEg, Mcal/lb	0.517	0.539	0.481-0.583
NE _m , Mcal/lb	0.799	0.825	0.758-0.875

	Sample	Low	High
Pool Rates, %/h			
Starch, B1	12.66	[Bar]	[Bar]
Fast Pool, A, B1, B2	24.96	[Bar]	[Bar]
Slow Pool, B3	4.71	[Bar]	[Bar]
Time to max rate, h			
Fast	1.75	[Bar]	[Bar]
Slow	10.00	[Bar]	[Bar]
Total gas pool, mL/g DM	166.71	[Bar]	[Bar]
Proportion of gas, % of total			
Fast Pool	29.95	[Bar]	[Bar]
Slow Pool	70.05	[Bar]	[Bar]
TDMD, %	77.73	[Bar]	[Bar]
Microbial biomass, mg/gDM	111.44	[Bar]	[Bar]



Product: ██████████
Sender: ██████████
Customer Email: ██████████
OC Email: ██████████

Sample Number: 210602
Received Date: 5/28/2021
Lab Report Date: 6/7/2021
Office ID: -

Guidelines (based on Dairy TMRs)			
	Average	Recommended	Submitted Sample Values
2-Pool total (mL gas/g DM)	175.9	168.2-183.4	166.71
Fast Pool (mL gas/g DM)	62.4	54.33-69.63	49.93
Slow Pool (mL gas/g DM)	113.5	106.1-120.3	116.78
FP, % Total	35.4	31.6-38.5	29.95
SP, % Total	64.6	61.5-68.4	70.05
FP Rate (%/h)	21.26	18.42-23.26	24.96
SP Rate (%/h)	4.86	>4.86	4.71
Starch Rate (%/h)	11.59	10.87-13.04	12.66
Time to Max FP (h)	2.68	2.33-2.92	1.75
Time to Max SP (h)	10.79	<10.79	10.00
ADMD (%)	73.0	>70.9	68.04
TDMD (%)	81.8	>81.8	77.73
MBM (mg/g DM)	101.7	90.6-111	111.44
PF	4.67	4.45-4.87	4.66
Total VFA (mM)	25.50	23.83-27.02	23.72
Acetic Acid (% of total)	43.82	41.47-46.04	43.21
Propionic Acid (% of total)	33.21	31.66-34.55	34.07
Butyric Acid (% of total)	17.91	16.8-18.9	17.48
C2:C3	1.33	1.22-1.44	1.27

Observations

- * High lignin, ash.
- * Digestibility is low (low gas production, VFA production).
- * Fermentation rates are adequate, fast pool relatively fast.
- * Microbial biomass is good and VFA profile is balanced.

Recommendations

- * Digestibility needs to be increased by feeding the best quality forage available to at least the transition/high producing cows.
- * I would remove wheat straw and feed the better of feeder haylage vs. Haylage MC.
- * Barley can be replaced with ground corn/ fast pool rate is high.
- * Alternatively, Fibrozyme fed at 10 g/hd/d can increased fiber digestibility rate and extent

The suggestions/recommendations from the Analysis Report are based on the information and material the Customer has provided for the requested Service. The Company shall not be liable for any claim arising from any changes to the information disclosed by the Customer on the Submission Form.