



Cumberland Valley Analytical Services

Quantitative and Qualitative Analysis
of Feeds for the Dairy Industry

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TMR Average Nutrient Values

	NDF Range: < 28%		28 - 31.99%		32 - 35.99%		36 - 39.99%	
	average	SD	average	SD	average	SD	average	SD
Dry matter	76	19.9	59	18.8	54.9	16.6	53.8	16.2
Protein, %DM	16.00	3.2	17.2	1.5	16.8	1.5	16.2	1.7
Soluble Protein, %CP	36.5	7.9	38.2	6.6	38.9	6.4	38.9	6.9
Ammonia, %CP	1.35	0.77	1.28	0.65	1.25	0.54	1.38	0.78
ADF, %DM	14.9	4.3	20.1	1.7	22.2	1.9	24.7	2.4
NDF, %DM	24	4.6	30.4	1.1	34	1.1	37.8	1.2
peNDF, %DM			68.5	6.1	71.8	9.8	76.1	9.6
Lignin, %DM	3.64	1.41	3.67	0.83	3.94	0.95	4.48	1.32
Lignin, %NDF	13.2	4.6	11.8	2.3	11.2	2.6	11	3
NDFD 24 hr, %NDF	47.5	8.3	51.4	4.9	50.3	4.6	52.1	5.6
NDFD 30 hr, %NDF	48.7	8.6	52.2	5.1	51.5	5.9	53.7	6.7
Starch, %DM	32	7.9	25.5	3.7	22.8	3.6	19.5	4.7
Starch 7 hr Invitro, % Starch	78.1	8	77.2	7.3	76.9	4.3		
Starch Processing Score	83.3	8.2	73.5	12.4	72.3	6.5	78.4	5
Sugar, %DM	4.9	2.8	4.9	2.3	4.9	2.1	5.3	2.7
Fat, %DM	5.07	1.81	4.77	1.03	4.82	1.12	4.59	1.22
Ash, %DM	6.82	2.55	7.7	1.45	7.68	1.34	7.85	1.52
NFC, %DM	50.2	8.4	41.2	2.8	38.2	2.8	35.1	2.9
Ca, %DM	0.84	0.54	0.92	0.21	0.86	0.21	0.83	0.24
P, %DM	0.4	0.1	0.4	0.06	0.4	0.06	0.4	0.07
MG, %DM	0.3	0.12	0.34	0.06	0.33	0.06	0.33	0.07
K, %DM	1.33	0.44	1.6	0.27	1.61	0.27	1.64	0.32
Na, %DM	0.32	0.18	0.42	0.14	0.41	0.2	0.37	0.15
Cl, %DM	0.58	0.27	0.57	0.24	0.59	0.21	0.67	0.33
S, %DM	0.23	0.09	0.26	0.04	0.26	0.06	0.27	0.07
Fe, ppm	298	223	344	407	335	162	356	214
Mn, ppm	76	54	82	32	82	30	86	34
Zn, ppm	108	64	102	44	98	34	97	39
Cu, ppm	24	20	23	8	23	8	23	10

Penn State Particle Size (% of Total, As-Received):

>.75" (Top Screen)	5.5	3.2	6.8	7.1	7.3	5.3	8.8	6.0
.31" to .75" (Middle)	34.0	7.9	39.8	8.1	43.6	7.2	42.5	7.4
<.31" (Bottom Pan)	60.6	8.9	53.4	9.0	49.1	8.7	48.7	9.0