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Sample Date: 2023-12-12
Sample No.: 003-2312-1308957

To: Steffes Auctioneers
 24400 MN Hwy 22 South
 Litchfield, MN 55355

Account No.: 953 (0)
Sampled By: Steffes Auctioneers
Sampled For: STEFFES AUCTION

Product: 7638

Test Mode: N9
Feed Type: Hay - Grass
Sub Type: Mixed

Moisture	10.14%		
Dry Matter	89.86%		
		Dry Basis	90% Range*
Crude Protein	%DM	11.31	4.95 - 16.5
AD-ICP	%DM	1.05	0.62 - 1.79
ND-ICP w/SS	%DM	3.12	1.29 - 4.68
Protein Sol.	%CP	26.53	8.61 - 48.9
Total Amino Acids	%DM	8.53	2.58 - 15.2
Total Amino Acids	%CP	75.42	45.0 - 80.7
Lysine	%CP	4.07	2.37 - 4.60
Methionine	%CP	1.41	0.65 - 1.72
Isoleucine	%CP	3.45	2.08 - 3.75
Leucine	%CP	6.98	4.58 - 7.86
Histidine	%CP	1.50	1.02 - 1.71
ADF	%DM	41.10	31.8 - 50.2
aNDF	%DM	60.34	48.2 - 72.7
aNDFom	%DM	57.26	43.0 - 68.9
Lignin (Sulfuric Acid)	%DM	5.44	3.94 - 9.40
Lignin	%NDFom	9.50	
Lignin input (uNDF/2.4)	%DM	7.08	
NDFD12	%NDFom	30.18	21.4 - 45.1
NDFD 24	%NDFom	46.96	31.1 - 59.0
NDFD 30	%NDFom	51.07	36.2 - 65.5
NDFD 48	%NDFom	58.31	40.6 - 67.4
NDFD240	%NDFom	70.33	52.4 - 80.6
uNDFom12	%DM	39.98	24.8 - 48.5
uNDFom24	%DM	30.37	18.7 - 43.4
uNDFom30	%DM	28.02	14.7 - 40.9
uNDFom48	%DM	23.87	12.8 - 35.9
uNDFom240	%DM	16.99	10.3 - 30.4
Starch	%DM	2.18	0.25 - 7.32
Fat (EE)	%DM	2.52	1.58 - 3.71
TFA (fat)	%DM	1.00	0.49 - 2.17
16:0 Palmitic	%TFA	23.00	18.1 - 36.8
18:0 Stearic	%TFA	5.00	3.37 - 10.8
18:1 Oleic	%TFA	8.00	4.24 - 26.6
18:2 Linoleic	%TFA	15.00	3.64 - 26.4

18:3 Linolenic	%TFA	47.00	8.75 - 59.7
Ash	%DM	8.65	6.12 - 13.0
Calcium	%DM	0.59	0.25 - 1.15
Phosphorus	%DM	0.27	0.11 - 0.35
Magnesium	%DM	0.21	0.12 - 0.33
Potassium	%DM	2.46	0.69 - 3.03
Sulfur	%DM	0.18	0.07 - 0.25
Chloride	%DM	0.40	0.07 - 0.89
Sugar (ESC)	%DM	7.50	2.16 - 10.4
Sugar (WSC)	%DM	8.21	3.29 - 12.9

*Mixed grass hay statistics provided for comparison.

Calculations

Adjusted Crude Protein	%DM	11.31		
NFC	%DM	23.90		
NSC	%DM	10.39		
RFV		87.75		
RFQ		123.07		
NDF kd rate Van Amb	%/hr	3.68		
NDF kd rate MIR_P1	%/hr	4.54		
		ADF	OARDC	MLK 2013
TDN	%DM	56.88	57.35	54.66
Nel 3x	Mcal/cwt	57.96	58.41	59.13
Neg	Mcal/cwt	27.02	30.29	26.83
Nem	Mcal/cwt	52.45	56.01	52.25
Milk per ton	lbs/ton			2489