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Sample Date: 2023-12-12
Sample No.: 003-2312-1308954

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

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

Product: 3728

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

| | | | |
|-------------------------|--------|------------------|-------------------|
| Moisture | 14.11% | | |
| Dry Matter | 85.89% | | |
| | | Dry Basis | 90% Range* |
| Crude Protein | %DM | 13.48 | 4.95 - 16.5 |
| AD-ICP | %DM | 1.64 | 0.62 - 1.79 |
| ND-ICP w/SS | %DM | 4.06 | 1.29 - 4.68 |
| Protein Sol. | %CP | 28.86 | 8.61 - 48.9 |
| Total Amino Acids | %DM | 9.52 | 2.58 - 15.2 |
| Total Amino Acids | %CP | 70.62 | 45.0 - 80.7 |
| Lysine | %CP | 3.34 | 2.37 - 4.60 |
| Methionine | %CP | 1.26 | 0.65 - 1.72 |
| Isoleucine | %CP | 3.26 | 2.08 - 3.75 |
| Leucine | %CP | 6.31 | 4.58 - 7.86 |
| Histidine | %CP | 1.34 | 1.02 - 1.71 |
| ADF | %DM | 39.92 | 31.8 - 50.2 |
| aNDF | %DM | 57.46 | 48.2 - 72.7 |
| aNDFom | %DM | 53.31 | 43.0 - 68.9 |
| Lignin (Sulfuric Acid) | %DM | 6.28 | 3.94 - 9.40 |
| Lignin | %NDFom | 11.78 | |
| Lignin input (uNDF/2.4) | %DM | 8.18 | |
| NDFD12 | %NDFom | 15.78 | 21.4 - 45.1 |
| NDFD 24 | %NDFom | 34.05 | 31.1 - 59.0 |
| NDFD 30 | %NDFom | 38.57 | 36.2 - 65.5 |
| NDFD 48 | %NDFom | 47.38 | 40.6 - 67.4 |
| NDFD240 | %NDFom | 63.16 | 52.4 - 80.6 |
| uNDFom12 | %DM | 44.90 | 24.8 - 48.5 |
| uNDFom24 | %DM | 35.16 | 18.7 - 43.4 |
| uNDFom30 | %DM | 32.75 | 14.7 - 40.9 |
| uNDFom48 | %DM | 28.05 | 12.8 - 35.9 |
| uNDFom240 | %DM | 19.64 | 10.3 - 30.4 |
| Starch | %DM | 1.11 | 0.25 - 7.32 |
| Fat (EE) | %DM | 2.85 | 1.58 - 3.71 |
| TFA (fat) | %DM | 1.23 | 0.49 - 2.17 |
| 16:0 Palmitic | %TFA | 18.70 | 18.1 - 36.8 |
| 18:0 Stearic | %TFA | 5.69 | 3.37 - 10.8 |
| 18:1 Oleic | %TFA | 8.13 | 4.24 - 26.6 |
| 18:2 Linoleic | %TFA | 13.82 | 3.64 - 26.4 |

| | | | |
|----------------|------|-------|-------------|
| 18:3 Linolenic | %TFA | 52.03 | 8.75 - 59.7 |
| Ash | %DM | 10.53 | 6.12 - 13.0 |
| Calcium | %DM | 0.73 | 0.25 - 1.15 |
| Phosphorus | %DM | 0.26 | 0.11 - 0.35 |
| Magnesium | %DM | 0.31 | 0.12 - 0.33 |
| Potassium | %DM | 1.86 | 0.69 - 3.03 |
| Sulfur | %DM | 0.26 | 0.07 - 0.25 |
| Chloride | %DM | 0.35 | 0.07 - 0.89 |
| Sugar (ESC) | %DM | 6.81 | 2.16 - 10.4 |
| Sugar (WSC) | %DM | 9.22 | 3.29 - 12.9 |

*Mixed grass hay statistics provided for comparison.

Calculations

| | | |
|------------------------|------|--------|
| Adjusted Crude Protein | %DM | 13.01 |
| NFC | %DM | 24.51 |
| NSC | %DM | 10.33 |
| RFV | | 93.64 |
| RFQ | | 107.77 |
| NDF kd rate Van Amb | %/hr | 2.54 |
| NDF kd rate MIR_P1 | %/hr | 3.25 |

| | | ADF | OARDC | MLK 2013 |
|--------------|----------|------------|--------------|-----------------|
| TDN | %DM | 57.80 | 55.42 | 49.08 |
| Nel 3x | Mcal/cwt | 58.99 | 56.26 | 57.07 |
| Neg | Mcal/cwt | 28.93 | 28.39 | 20.06 |
| Nem | Mcal/cwt | 54.53 | 53.94 | 44.94 |
| Milk per ton | lbs/ton | | | 2208 |