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Sample Date: 2023-12-12
Sample No.: 003-2312-1308958

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

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

Product: 7639

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

| | | | |
|-------------------------|--------|------------------|-------------------|
| Moisture | 12.10% | | |
| Dry Matter | 87.90% | | |
| | | Dry Basis | 90% Range* |
| Crude Protein | %DM | 15.74 | 13.7 - 23.9 |
| AD-ICP | %DM | 1.32 | 1.06 - 2.09 |
| ND-ICP w/SS | %DM | 2.94 | 1.47 - 4.24 |
| Protein Sol. | %CP | 37.10 | 26.1 - 46.1 |
| Total Amino Acids | %DM | 11.49 | 6.52 - 15.6 |
| Total Amino Acids | %CP | 73.00 | 64.1 - 79.8 |
| Lysine | %CP | 4.07 | 3.44 - 4.63 |
| Methionine | %CP | 1.52 | 1.35 - 1.74 |
| Isoleucine | %CP | 3.30 | 2.63 - 3.55 |
| Leucine | %CP | 6.54 | 5.08 - 7.24 |
| Histidine | %CP | 1.52 | 1.25 - 1.70 |
| ADF | %DM | 37.74 | 25.8 - 41.6 |
| aNDF | %DM | 50.55 | 32.3 - 55.6 |
| aNDFom | %DM | 49.26 | 29.9 - 53.5 |
| Lignin (Sulfuric Acid) | %DM | 7.69 | 5.44 - 9.38 |
| Lignin | %NDFom | 15.61 | |
| Lignin input (uNDF/2.4) | %DM | 9.04 | |
| NDFD12 | %NDFom | 30.69 | 21.0 - 43.6 |
| NDFD 24 | %NDFom | 41.94 | 29.2 - 51.4 |
| NDFD 30 | %NDFom | 44.46 | 32.1 - 54.7 |
| NDFD 48 | %NDFom | 48.76 | 33.6 - 57.5 |
| NDFD240 | %NDFom | 55.95 | 43.0 - 70.7 |
| uNDFom12 | %DM | 34.14 | 20.1 - 48.9 |
| uNDFom24 | %DM | 28.60 | 17.3 - 31.3 |
| uNDFom30 | %DM | 27.36 | 16.4 - 29.7 |
| uNDFom48 | %DM | 25.24 | 15.8 - 29.2 |
| uNDFom240 | %DM | 21.70 | 12.2 - 28.8 |
| Starch | %DM | 1.37 | 0.29 - 3.75 |
| Fat (EE) | %DM | 2.08 | 1.88 - 3.44 |
| TFA (fat) | %DM | 0.99 | 0.87 - 2.47 |
| 16:0 Palmitic | %TFA | 26.26 | 22.7 - 40.0 |
| 18:0 Stearic | %TFA | 6.06 | 4.68 - 8.86 |
| 18:1 Oleic | %TFA | 9.09 | 3.89 - 11.4 |
| 18:2 Linoleic | %TFA | 19.19 | 11.4 - 22.4 |

| | | | |
|----------------|------|-------|-------------|
| 18:3 Linolenic | %TFA | 37.37 | 18.8 - 50.4 |
| Ash | %DM | 7.79 | 8.88 - 13.8 |
| Calcium | %DM | 0.97 | 0.93 - 1.81 |
| Phosphorus | %DM | 0.29 | 0.24 - 0.39 |
| Magnesium | %DM | 0.25 | 0.23 - 0.40 |
| Potassium | %DM | 2.56 | 1.76 - 3.37 |
| Sulfur | %DM | 0.17 | 0.16 - 0.33 |
| Chloride | %DM | 0.22 | 0.13 - 1.12 |
| Sugar (ESC) | %DM | 8.50 | 3.04 - 9.57 |
| Sugar (WSC) | %DM | 9.34 | 3.67 - 10.5 |

*Mixed hay statistics provided for comparison.

Calculations

| | | | | |
|------------------------|----------|------------|--------------|-----------------|
| Adjusted Crude Protein | %DM | 15.74 | | |
| NFC | %DM | 28.16 | | |
| NSC | %DM | 10.71 | | |
| RFV | | 109.31 | | |
| RFQ | | 109.01 | | |
| NDF kd rate Van Amb | %/hr | 4.18 | | |
| NDF kd rate MIR_P1 | %/hr | 5.63 | | |
| | | ADF | OARDC | MLK 2013 |
| TDN | %DM | 59.50 | 57.21 | 58.56 |
| Nel 3x | Mcal/cwt | 60.88 | 58.26 | 58.98 |
| Neg | Mcal/cwt | 29.04 | 31.92 | 33.86 |
| Nem | Mcal/cwt | 54.65 | 57.79 | 59.92 |
| Milk per ton | lbs/ton | | | 2519 |