



Dairyland Laboratories  
 919 Lincoln Ave.  
 Sauk Rapids, MN 56379  
**Telephone:** 320-240-1737  
**Fax:** 320-240-1838  
**Email:** info@dairylandlabs.com

**Sample Date:** 2023-12-12  
**Sample No.:** 003-2312-1309377

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

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

**Product:** 3756

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

|                         |        |                  |                   |
|-------------------------|--------|------------------|-------------------|
| Moisture                | 13.99% |                  |                   |
| Dry Matter              | 86.01% |                  |                   |
|                         |        | <b>Dry Basis</b> | <b>90% Range*</b> |
| Crude Protein           | %DM    | 11.24            | 4.95 - 16.5       |
| AD-ICP                  | %DM    | 1.25             | 0.62 - 1.79       |
| ND-ICP w/SS             | %DM    | 3.12             | 1.29 - 4.68       |
| Protein Sol.            | %CP    | 28.38            | 8.61 - 48.9       |
| Total Amino Acids       | %DM    | 8.08             | 2.58 - 15.2       |
| Total Amino Acids       | %CP    | 71.89            | 45.0 - 80.7       |
| Lysine                  | %CP    | 3.91             | 2.37 - 4.60       |
| Methionine              | %CP    | 1.33             | 0.65 - 1.72       |
| Isoleucine              | %CP    | 3.56             | 2.08 - 3.75       |
| Leucine                 | %CP    | 7.12             | 4.58 - 7.86       |
| Histidine               | %CP    | 1.51             | 1.02 - 1.71       |
| ADF                     | %DM    | 44.19            | 31.8 - 50.2       |
| aNDF                    | %DM    | 60.91            | 48.2 - 72.7       |
| aNDFom                  | %DM    | 58.20            | 43.0 - 68.9       |
| Lignin (Sulfuric Acid)  | %DM    | 6.63             | 3.94 - 9.40       |
| Lignin                  | %NDFom | 11.39            |                   |
| Lignin input (uNDF/2.4) | %DM    | 9.30             |                   |
| NDFD12                  | %NDFom | 22.68            | 21.4 - 45.1       |
| NDFD 24                 | %NDFom | 36.60            | 31.1 - 59.0       |
| NDFD 30                 | %NDFom | 40.96            | 36.2 - 65.5       |
| NDFD 48                 | %NDFom | 49.05            | 40.6 - 67.4       |
| NDFD240                 | %NDFom | 61.63            | 52.4 - 80.6       |
| uNDFom12                | %DM    | 45.00            | 24.8 - 48.5       |
| uNDFom24                | %DM    | 36.90            | 18.7 - 43.4       |
| uNDFom30                | %DM    | 34.36            | 14.7 - 40.9       |
| uNDFom48                | %DM    | 29.65            | 12.8 - 35.9       |
| uNDFom240               | %DM    | 22.33            | 10.3 - 30.4       |
| Starch                  | %DM    | 1.89             | 0.25 - 7.32       |
| Fat (EE)                | %DM    | 1.94             | 1.58 - 3.71       |
| TFA (fat)               | %DM    | 0.85             | 0.49 - 2.17       |
| 16:0 Palmitic           | %TFA   | 25.88            | 18.1 - 36.8       |
| 18:0 Stearic            | %TFA   | 7.06             | 3.37 - 10.8       |
| 18:1 Oleic              | %TFA   | 9.41             | 4.24 - 26.6       |
| 18:2 Linoleic           | %TFA   | 15.29            | 3.64 - 26.4       |

|                |      |       |             |
|----------------|------|-------|-------------|
| 18:3 Linolenic | %TFA | 40.00 | 8.75 - 59.7 |
| Ash            | %DM  | 8.58  | 6.12 - 13.0 |
| Calcium        | %DM  | 0.66  | 0.25 - 1.15 |
| Phosphorus     | %DM  | 0.24  | 0.11 - 0.35 |
| Magnesium      | %DM  | 0.25  | 0.12 - 0.33 |
| Potassium      | %DM  | 2.41  | 0.69 - 3.03 |
| Sulfur         | %DM  | 0.17  | 0.07 - 0.25 |
| Chloride       | %DM  | 0.59  | 0.07 - 0.89 |
| Sugar (ESC)    | %DM  | 5.89  | 2.16 - 10.4 |
| Sugar (WSC)    | %DM  | 7.84  | 3.29 - 12.9 |

\*Mixed grass hay statistics provided for comparison.

**Calculations**

|                        |          |            |              |                 |
|------------------------|----------|------------|--------------|-----------------|
| Adjusted Crude Protein | %DM      | 11.04      |              |                 |
| NFC                    | %DM      | 23.25      |              |                 |
| NSC                    | %DM      | 9.73       |              |                 |
| RFV                    |          | 83.20      |              |                 |
| RFQ                    |          | 98.22      |              |                 |
| NDF kd rate Van Amb    | %/hr     | 2.79       |              |                 |
| NDF kd rate MIR_P1     | %/hr     | 3.77       |              |                 |
|                        |          | <b>ADF</b> | <b>OARDC</b> | <b>MLK 2013</b> |
| TDN                    | %DM      | 54.48      | 54.96        | 48.34           |
| Nel 3x                 | Mcal/cwt | 55.29      | 55.75        | 55.98           |
| Neg                    | Mcal/cwt | 26.77      | 26.92        | 17.98           |
| Nem                    | Mcal/cwt | 52.18      | 52.35        | 42.72           |
| Milk per ton           | lbs/ton  |            |              | 2169            |