






1602 Park West Dr. • PO Box 169 • Hastings, NE 68902  
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Phone: 402.463.3522  
800.557.7509  
Fax: 402.463.8132

Lab No.: 10110		FEED ANALYSIS REPORT		Date Reported: 11/07/2023
Send To: 33423	SOUTHWEST GRAIN NEW ENGLAND SWG 170 ELEVATOR PO BOX 220 NEW ENGLAND, ND 58647			 
Results For:	BILL GUSSEY			 Hans Burken Lab Manager
Feedstuff Description:	HAY, MIXED			
Sample Identification:	OATS MILLET			
Date Received:	11/06/2023			
Invoice No.:	750189			
Feed Analysis Results		As Received	100% Dry Matter	
Nitrate Nitrogen, mg/kg NO3-N			859	
<b>Near Infrared Reflectance Spectroscopy (NIRS) Analysis</b>				
Moisture, %		14.7		
Dry Matter, %		85.3		
Crude Protein, %		8.08	9.47	
Adjusted Crude Protein, %		8.08	9.47	
AD-ICP, %		0.50	0.59	
ND-ICP (w/Na2SO3), %		2.31	2.71	
Soluble Protein, % CP		18.11	21.22	
ADF, % ADF		32.50	38.08	
aNDF (w/Na2SO3), % NDF		51.52	60.37	
aNDFom, % aNDFom		49.50	58.00	
Lignin (Sulfuric Acid), %		3.29	3.85	
Lignin % NDF, %		5.66	6.64	
uNDFom240, %		13.87	16.25	
NDFD240, % NDF		61.43	71.98	
Starch, %		5.07	5.94	

The reported analytical results apply only to the sample as it was supplied.  
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Feed Analysis Results		As Received	100% Dry Matter	
Fat (EE), %		3.09	3.62	
Total Fatty Acid (TFA), % TFA		1.29	1.51	
Ash, %		6.70	7.85	
Calcium, % Ca		0.30	0.35	
Phosphorus, % P		0.24	0.28	
Magnesium, % Mg		0.16	0.19	
Potassium, % K		1.86	2.18	
Sulfur, % S		0.19	0.22	
Sugar (ESC), %		6.07	7.11	
Sugar (WSC), %		6.88	8.06	
N.F.C., %		21.23	24.88	
RFV,		77.99	91.39	
Chloride, % Cl		0.30	0.35	
		<u>ADF</u>	<u>OADDC</u>	
TDN	%	59.24	61.52	
NEI	Mcal/lb	0.61	0.63	
NEg	Mcal/lb	0.26	0.35	
NEm	Mcal/lb	0.52	0.61	

**NITRATE: LOW (701 - 1400 mg/kg NO3-N):** Considered safe to feed for non-pregnant ruminants and horses. Suggest limiting this feedstuff to about 1/2 to 2/3 of the total dry matter intake in diets for pregnant ruminants if nitrate level is at the upper end of this range.

Feeding forages with potentially high nitrate levels requires careful management and observation. Limit access to the high nitrate forage, as necessary, especially if livestock are hungry. Avoid overconsumption by introducing livestock gradually to rations including high nitrate forages. Dilute high nitrate forages with low nitrate feedstuffs as described above to help avoid a toxic dose of nitrate. Feed a balanced ration with adequate energy.

Nitrate levels in standing forages can change between sampling and harvest. Retest harvested and cured forage before feeding to livestock.

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<b>Rating</b>	<b>mg/kg NO3-N</b>	<b>Comments</b>																																														
Very Low	0-700	Safe																																														
Low	701-1400	Usually safe																																														
Medium	1401-2100	Potentially toxic																																														
High	2101-2800	Very Dangerous																																														
Very High	2801-3500	Extremely Dangerous																																														
Extremely High	Over 3500	Extremely Dangerous																																														
<p><b>NITRATE:</b> Servi-Tech Laboratories reports these values as "mg/kg nitrate-nitrogen (mg/kg NO3-N)". Other sources may report values differently. Following are common conversions:</p> <p>NO3 = NO3-N x 4.43            KNO3 = NO3-N x 7.20            % = mg/kg x 0.0001</p> <p><b>USDA HAY QUALITY GUIDELINES: ALFALFA, ALFALFA/MIX (100% dry matter)</b></p> <table border="1"> <thead> <tr> <th>QUALITY</th> <th>RFV</th> <th>ADF %</th> <th>NDF %</th> <th>%CP</th> </tr> </thead> <tbody> <tr> <td>Supreme</td> <td>&gt; 185</td> <td>&lt; 27</td> <td>&lt; 34</td> <td>&gt; 22</td> </tr> <tr> <td>Premium</td> <td>170-185</td> <td>27-29</td> <td>34-36</td> <td>20-22</td> </tr> <tr> <td>Good</td> <td>150-170</td> <td>29-32</td> <td>36-40</td> <td>18-20</td> </tr> <tr> <td>Fair</td> <td>130-150</td> <td>32-35</td> <td>40-44</td> <td>16-18</td> </tr> <tr> <td>Utility</td> <td>&lt; 130</td> <td>&gt; 35</td> <td>&gt; 44</td> <td>&lt; 18</td> </tr> </tbody> </table> <p>These <b>USDA marketing guidelines</b> are based primarily on alfalfa or alfalfa-grass mix for dairy cattle use. Suggested guidelines for other forages and other livestock uses are given below. Crude protein, visual appearance, intent of sale, end use, and other factors may influence final hay price. Regional pricing information is available from USDA Hay Marketing Service - Hay Reports at: <a href="http://www.ams.usda.gov/market-news/hay-reports">www.ams.usda.gov/market-news/hay-reports</a></p> <table border="1"> <thead> <tr> <th>RFV</th> <th>SUGGESTED LIVESTOCK USES:</th> </tr> </thead> <tbody> <tr> <td>&gt; 150</td> <td>Prime dairy cows; fresh and high producers</td> </tr> <tr> <td>125 - 150</td> <td>Good dairy cows; young heifers; backgrounding</td> </tr> <tr> <td>105 - 125</td> <td>Good beef cattle; older heifers; marginal for dairy cows</td> </tr> <tr> <td>87 - 105</td> <td>Maintenance of beef and dairy cows</td> </tr> <tr> <td>75 - 87</td> <td>May require supplementation</td> </tr> <tr> <td>&lt; 75</td> <td>Will require supplementation</td> </tr> </tbody> </table> <p>NIRs analysis performed utilizing Feedstuff Equations developed by Dairyland Labs, Inc.</p>					QUALITY	RFV	ADF %	NDF %	%CP	Supreme	> 185	< 27	< 34	> 22	Premium	170-185	27-29	34-36	20-22	Good	150-170	29-32	36-40	18-20	Fair	130-150	32-35	40-44	16-18	Utility	< 130	> 35	> 44	< 18	RFV	SUGGESTED LIVESTOCK USES:	> 150	Prime dairy cows; fresh and high producers	125 - 150	Good dairy cows; young heifers; backgrounding	105 - 125	Good beef cattle; older heifers; marginal for dairy cows	87 - 105	Maintenance of beef and dairy cows	75 - 87	May require supplementation	< 75	Will require supplementation
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