

**UW Soil & Forage Analysis Laboratory**

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Results also available on-line at <http://uwlab.soils.wisc.edu/reports>  
 lab number: 2983 access code: tkvs



PROUDLY USING  
 NIRSC EQUATIONS

**Legume/Grass Hay Report - Standard**

Report Number: 2983 Lab Number: 2954 Sample Description: scissor clip Alf 4  
 Material: Legume or Grass Hay  
 Harvest date: 5/20/2009

Item	Abbreviation	Unit	Result	Method <sup>1</sup>
Dry Matter	DM	% as fed	94.51	WC
Moisture		% as fed	5.49	C
<b>Protein Fractions</b>				
Crude Protein	CP	% DM	27.61	NIR
Soluble Crude Protein	SCP	% CP		NA
Rumen-Undegraded Protein	RUP	% CP	33.78	NIR
Rumen-Degraded Protein	RDP	% CP	66.22	C
Acid Detergent Fiber Crude Protein	ADF-CP	% DM	0.45	NIR
Neutral Detergent Fiber Crude Protein	NDF-CP	% DM	4.65	C
Heat Damaged Protein-Estimated		% DM	0.45	C
Adjusted Crude Protein		% DM	27.61	C
<b>Fiber Fractions</b>				
Acid Detergent Fiber	ADF	% DM	20.33	NIR
Neutral Detergent Fiber	aNDF	% DM	30.15	NIR
Lignin, Acid Detergent	ADL	% DM	3.46	NIR
Lignin, Acid Detergent	ADL	% NDF	11.48	C
Neutral Detergent Fiber Digestibility, 48 h	NDFD	% NDF	56.97	NIR
<b>Carbohydrates and Fats</b>				
Non Fiber Carbohydrate	NFC	% DM	36.47	C
Fat		% DM	3.00	NIR
<b>Energy Calculations: 2001 NRC</b>				
Total Digestible Nutrients, 1X	TDN	% DM	73.31	C
Net Energy, Lactation, 3X	NeI	Mcal/lb	0.76	C
Net Energy, Maintenance	NE <sub>m</sub>	Mcal/lb	0.85	C
Net Energy, Gain	NE <sub>g</sub>	Mcal/lb	0.56	C
Metabolizable Energy	ME	Mcal/lb	1.28	C
Relative Forage Quality	RFQ		256.99	C
Milk/Ton		lbs	3,666	C

Macro Minerals					Micro Minerals				
Phosphorus	P	0.40	% DM	NIR	Iron	Fe		ppm	NR
Calcium	Ca	1.24	% DM	NIR	Manganese	Mn		ppm	NR
Potassium	K	2.26	% DM	NIR	Zinc	Zn		ppm	NR
Magnesium	Mg	0.36	% DM	NIR	Copper	Cu		ppm	NR
Sodium	Na		% DM	NR	Ash		7.42	% DM	NIR
Chloride	Cl		% DM	NR					
Sulfur	S		% DM	NR					

<sup>1</sup> WC = wet chemistry  
 NIR = near infrared spectroscopy  
 NR = not requested  
 NA = not available  
 C = calculated  
 T = tabular value

Methods used for these analyses can be found at <http://uwlab.soils.wisc.edu/procedures.htm>