

**UW Soil & Forage Analysis Laboratory**

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Results also available on-line at <http://uwlab.soils.wisc.edu/reports>  
 lab number: 2908 access code: 8xy



PROUDLY USING  
 NIRSC EQUATIONS

**Legume/Grass Hay Report - Standard**

Report Number: 2908 Lab Number: 2928 Sample Description: scissor clip-MF3  
 Material: Legume or Grass Hay  
 Harvest date: 5/17/2009

Item	Abbreviation	Unit	Result	Method <sup>1</sup>
Dry Matter	DM	% as fed	93.79	WC
Moisture		% as fed	6.21	C
<b>Protein Fractions</b>				
Crude Protein	CP	% DM	20.41	NIR
Soluble Crude Protein	SCP	% CP		NA
Rumen-Undegraded Protein	RUP	% CP	42.84	NIR
Rumen-Degraded Protein	RDP	% CP	57.16	C
Acid Detergent Fiber Crude Protein	ADF-CP	% DM	0.15	NIR
Neutral Detergent Fiber Crude Protein	NDF-CP	% DM	3.36	C
Heat Damaged Protein-Estimated		% DM	0.15	C
Adjusted Crude Protein		% DM	20.41	C
<b>Fiber Fractions</b>				
Acid Detergent Fiber	ADF	% DM	22.19	NIR
Neutral Detergent Fiber	aNDF	% DM	37.76	NIR
Lignin, Acid Detergent	ADL	% DM	2.43	NIR
Lignin, Acid Detergent	ADL	% NDF	6.44	C
Neutral Detergent Fiber Digestibility, 48 h	NDFD	% NDF	86.32	NIR
<b>Carbohydrates and Fats</b>				
Non Fiber Carbohydrate	NFC	% DM	31.95	C
Fat		% DM	3.25	NIR
<b>Energy Calculations: 2001 NRC</b>				
Total Digestible Nutrients, 1X	TDN	% DM	77.90	C
Net Energy, Lactation, 3X	NeI	Mcal/lb	0.81	C
Net Energy, Maintenance	NE <sub>m</sub>	Mcal/lb	0.93	C
Net Energy, Gain	NE <sub>g</sub>	Mcal/lb	0.63	C
Metabolizable Energy	ME	Mcal/lb	1.37	C
Relative Forage Quality	RFQ		273.76	C
Milk/Ton		lbs	4,213	C

Macro Minerals					Micro Minerals				
Phosphorus	P	0.40	% DM	NIR	Iron	Fe	ppm	NR	
Calcium	Ca	0.61	% DM	NIR	Manganese	Mn	ppm	NR	
Potassium	K	3.26	% DM	NIR	Zinc	Zn	ppm	NR	
Magnesium	Mg	0.26	% DM	NIR	Copper	Cu	ppm	NR	
Sodium	Na		% DM	NR	Ash		9.99	% 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>