

HOLMES LABORATORY INC.  
 3559 US 62  
 Millersburg, OH 44654  
 Phone (330) 893-2933  
 E-mail: holmeslabinfo@wifi7.com

FORAGE/FEEDSTUFF  
 ANALYSIS REPORT  
 [A Vital Key to Today's Agriculture]  
 www.holmeslab.com  
 Test Performed: AG

Customer: Andy Groeschel

Joyful Journey Alpacas, LLC  
 13920 W. State Rd. 77  
 Hayward, WI 54843

Date Reported: 10/01/2013  
 Lab Number: 13-3427  
 SAMPLE I.D.: Grass Hay  
 Hamblin 3rd Cut Orch

Item	Units	As Sampled Basis	Dry Matter Basis
Moisture	%	14.43	
Dry Matter	%	85.57	
Crude Protein	%	16.19	18.92
Available Protein	%		
Adjusted Crude Protein	%		
A.D.F. Protein	%		
N.D.F. Protein	%		
Soluble Protein	%		
Protein Solubility	%		
Lignin	%		
Acid Detergent Fiber	%	26.11	30.51
Neutral Detergent Fiber	%	49.48	57.82
NFC (Non-Fiber Carbohydrate)	%	11.52	13.46
Sugar	%		
Starch	%		
NSC = Starch + Sugar	%		
Crude Fat	%		
TDN	%	52.48	61.33
NEl	Mcal/lb.	.537	.627
NEm	Mcal/lb.	.525	.614
NEg	Mcal/lb.	.301	.352
Ash	%		
Lignin Insoluble Ash	%		
Calcium (Ca)	%	.33	.38
Phosphorus (P)	%	.26	.30
Magnesium (Mg)	%	.24	.28
Potassium (K)	%	1.87	2.18
Sulfur (S)	%		
Sodium (Na)	%	.021	.024
Chloride (Cl)	%		
Copper (Cu)	ppm	6	7
Manganese (Mn)	ppm	88	103
Zinc (Zn)	ppm	21	25
Iron (Fe)	ppm	86	101
Molybdenum (Mo)	ppm		
Aluminum (Al)	ppm		
Nitrate (NO3)	%		
pH			
RFV (Relative Feed Value)			105
Horse DE	Mcal/lb.		
Horse TDN	%		
Crude Fiber	%		
DCAD	meq./100g DM		
DCAD	meq./1 lb.DM		