

HOLMES LABORATORY INC.
 3559 US 62
 Millersburg, OH 44654

FORAGE/FEEDSTUFF
 ANALYSIS REPORT
 [A Vital Key to Today's Agriculture]
 (330) 893-2933 * www.holmeslab.com
 Test Performed: AG

Customer: Andy Groeschel

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

Date Reported: 09/29/2014
 Lab Number: 14-3062
 SAMPLE I.D.: Grass Hay
 3rd Cut Orchard Grs.

Item	Units	As Sampled Basis	Dry Matter Basis
Moisture	%	13.94	
Dry Matter	%	86.06	
Crude Protein	%	9.17	10.66
Available Protein	%		
Adjusted Crude Protein	%		
A.D.F. Protein	%		
N.D.F. Protein	%		
Soluble Protein	%		
Protein Solubility	%		
Lignin	%		
Acid Detergent Fiber	%	33.49	38.91
Neutral Detergent Fiber	%	48.58	56.45
NFC (Non-Fiber Carbohydrate)	%	19.87	23.09
Sugar	%		
Starch	%		
NSC = Starch + Sugar	%		
Crude Fat	%		
TDN	%	43.02	49.99
NEl	Mcal/lb.	.431	.501
NEm	Mcal/lb.	.378	.439
NEg	Mcal/lb.	.164	.191
Ash	%		
Lignin Insoluble Ash	%		
Calcium (Ca)	%	.22	.26
Phosphorus (P)	%	.24	.28
Magnesium (Mg)	%	.21	.24
Potassium (K)	%	1.81	2.10
Sulfur (S)	%		
Sodium (Na)	%	.011	.013
Chloride (Cl)	%		
Copper (Cu)	ppm	5	6
Manganese (Mn)	ppm	120	140
Zinc (Zn)	ppm	13	15
Iron (Fe)	ppm	47	55
Molybdenum (Mo)	ppm		
Aluminum (Al)	ppm		
Nitrate (NO3)	%		
pH			
RFV (Relative Feed Value)			97
Horse DE	Mcal/lb.		
Horse TDN	%		
Crude Fiber	%		
DCAD	meq./100g DM		
DCAD	meq./1 lb.DM		