

GALUSHA FARMS
27W 271 GALUSHA RD
WARRENVILLE IL 60555

ACCOUNT NO: 36571
SALESMAN: PHILLIP MONSON

=====		SAMPLE NO.	=====	DATE ANALYZED	=====
HAY M2HEG1122 S145		1524581		08/01/19	
=====					
MOISTURE	13.63%	DRY MATTER	86.37%	HEM	23.36%
CRUDE PROT	11.89%	CALCIUM	0.42%	SUGARS	
SOLUBLE PROT	20.97%	PHOSPHORUS	0.31%	FRUCTOSE	3.22%
		MAGNESIUM	0.25%	GLUCOSE	2.50%
		POTASSIUM	2.40%	SUCROSE	1.15%
ADF	34.25%	CHLORIDE	0.63%	MANNITOL	0.20%
NDF	57.61%	SULFUR	0.24%		
		SODIUM	0.00%		
ADIP (HD)	0.91%				
LIGNIN	3.88%	ZINC	24 PPM		
		COPPER	6 PPM		
FAT	2.70%	IRON	606 PPM		
STARCH	3.47%	MANGANESE	65 PPM		
ASH	8.81%				
		CALCULATIONS			
IVDMD	66.45%	NFC	23.34		
NDFD-30	58.20%	NEL	0.66	MCAL/LB	
		NEM	0.56	MCAL/LB	
NITRATE-N PPM	131	NEG	0.31	MCAL/LB	
		TDN	64		
		RFV	100		
		RFQ	131.1		
NSC	10.34				

ALL VALUES, EXCEPT MOISTURE, ARE ON A 100% DRY MATTER BASIS.



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=====		SAMPLE NO.	=====		DATE ANALYZED	=====
HAY GM2WIP111 851CL		1524582			08/01/19	
=====						
MOISTURE	12.07%	DRY MATTER	87.94%	HEM		25.69%
CRUDE PROT	12.16%	CALCIUM	0.48%	SUGARS		
SOLUBLE PROT	17.41%	PHOSPHORUS	0.27%	FRUCTOSE		2.38%
		MAGNESIUM	0.25%	GLUCOSE		1.78%
		POTASSIUM	2.19%	SUCROSE		0.90%
ADF	37.65%	CHLORIDE	0.82%	MANNITOL		0.17%
NDF	63.34%	SULFUR	0.21%			
		SODIUM	0.01%			
ADIP (HD)	1.06%					
LIGNIN	5.07%	ZINC	23 PPM			
		COPPER	7 PPM			
FAT	2.45%	IRON	115 PPM			
STARCH	2.34%	MANGANESE	111 PPM			
ASH	6.68%					
		CALCULATIONS				
IVDMD	60.46%	NFC	20.54			
NDFD-30	53.19%	NEL	0.62	MCAL/LB		
		NEM	0.50	MCAL/LB		
NITRATE-N PPM	46	NEG	0.25	MCAL/LB		
		TDN	60			
		RFV	87			
		RFQ	118.9			
NSC	7.389					

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SALESMAN: PHILLIP MONSON

=====		SAMPLE NO.	=====	DATE ANALYZED	=====
HAY OAT S J NEW SEED		1524583		08/01/19	
=====					
MOISTURE	10.03%	DRY MATTER	89.97%	HEM	27.02%
CRUDE PROT	8.29%	CALCIUM	0.33%	SUGARS	
SOLUBLE PROT	12.59%	PHOSPHORUS	0.26%	FRUCTOSE	1.29%
		MAGNESIUM	0.17%	GLUCOSE	1.43%
		POTASSIUM	1.11%	SUCROSE	0.86%
ADF	43.98%	CHLORIDE	0.18%	MANNITOL	0.07%
NDF	71.00%	SULFUR	0.13%		
		SODIUM	0.01%		
ADIP (HD)	1.12%				
LIGNIN	6.28%	ZINC	30 PPM		
		COPPER	4 PPM		
FAT	1.67%	IRON	272 PPM		
STARCH	4.95%	MANGANESE	47 PPM		
ASH	5.53%				
		CALCULATIONS			
IVDMD	49.21%	NFC	17.08		
NDFD-30	42.18%	NEL	0.54	MCAL/LB	
		NEM	0.39	MCAL/LB	
NITRATE-N PPM	18	NEG	0.15	MCAL/LB	
		TDN	53		
		RFV	71		
		RFQ	79.0		
NSC	8.53				

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GALUSHA FARMS
27W 271 GALUSHA RD
WARRENVILLE IL 60555

ACCOUNT NO: 36571
SALESMAN: NORTHERNCORNBELT

=====		SAMPLE NO.	=====	DATE ANALYZED	=====
HAY M1FAP11172 2 B2		1445796		06/28/18	

MOISTURE	17.14%	DRY MATTER	82.86%	HEM	13.74%
CRUDE PROT	15.22%	CALCIUM	1.14%	SUGARS	
SOLUBLE PROT	30.03%	PHOSPHORUS	0.15%	FRUCTOSE	3.43%
		MAGNESIUM	0.35%	GLUCOSE	1.20%
ADF	35.28%	POTASSIUM	1.76%	SUCROSE	2.59%
NDF	49.02%	CHLORIDE	0.23%	MANNITOL	0.11%
		SULFUR	0.15%		
		SODIUM	0.05%		
ADIP (HD)	0.92%				
LIGNIN	6.86%	ZINC	70 PPM		
		COPPER	9 PPM		
FAT	1.75%	IRON	375 PPM		
STARCH	2.98%	MANGANESE	49 PPM		
ASH	7.57%				
		CALCULATIONS			
IVDMD	63.97%	NFC	29.60		
NDFD-30	38.84%	NEL	0.64	MCAL/LB	
		NEM	0.56	MCAL/LB	
NITRATE-N PPM	114	NEG	0.30	MCAL/LB	
		TDN	62		
		RFV	116		
		RFQ	100.4		
NSC %	10.18				

This hay would be suitable for most classes of horses, including sedentary, mature, and metabolically challenged.



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ACCOUNT NO: 36571
SALESMAN: NORTHERNCORNBELT

=====		SAMPLE NO.	=====		DATE ANALYZED	=====
HAY GM1APP610S 2W1 C2		1445797			06/28/18	

MOISTURE	11.35%	DRY MATTER	88.65%	HEM		18.86%
CRUDE PROT	12.16%	CALCIUM	0.62%	SUGARS		
SOLUBLE PROT	29.98%	PHOSPHORUS	0.26%	FRUCTOSE		3.64%
		MAGNESIUM	0.24%	GLUCOSE		1.97%
		POTASSIUM	1.93%	SUCROSE		2.20%
ADF	34.05%	CHLORIDE	0.39%	MANNITOL		0.12%
NDF	52.91%	SULFUR	0.07%			
		SODIUM	0.02%			
ADIP (HD)	0.64%					
LIGNIN	5.29%	ZINC	27 PPM			
		COPPER	6 PPM			
FAT	2.24%	IRON	96 PPM			
STARCH	6.05%	MANGANESE	36 PPM			
ASH	7.14%					
		CALCULATIONS				
IVDMD	64.41%	NFC	28.77			
NDFD-30	48.08%					
		NEL	0.66 MCAL/LB			
		NEM	0.56 MCAL/LB			
NITRATE-N PPM	73	NEG	0.31 MCAL/LB			
		TDN	64			
		RFV	109			
		RFQ	127.3			
NSC %	13.85					

NSC values >12 are ideal for horses that are in work and do not have Cushing's or are insulin resistant.

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ACCOUNT NO: 36571
SALESMAN: NORTHERNCORNBELT

=====		SAMPLE NO.	=====	DATE ANALYZED	=====
HAY GM1WIP610S 2W1 C1		1445798		06/28/18	
=====					
MOISTURE	12.70%	DRY MATTER	87.30%	HEM	18.76%
CRUDE PROT	13.86%	CALCIUM	0.51%	SUGARS	
SOLUBLE PROT	29.36%	PHOSPHORUS	0.24%	FRUCTOSE	3.70%
		MAGNESIUM	0.23%	GLUCOSE	2.53%
ADF	33.99%	POTASSIUM	2.27%	SUCROSE	1.47%
NDF	52.75%	CHLORIDE	0.21%	MANNITOL	0.18%
		SULFUR	0.15%		
		SODIUM	0.02%		
ADIP (HD)	0.82%				
LIGNIN	4.61%	ZINC	30 PPM		
		COPPER	6 PPM		
FAT	2.37%	IRON	293 PPM		
STARCH	4.17%	MANGANESE	90 PPM		
ASH	8.78%				
		CALCULATIONS			
IVDMD	67.51%	NFC	26.37		
NDFD-30	50.98%	NEL	0.66	MCAL/LB	
		NEM	0.58	MCAL/LB	
NITRATE-N PPM	100	NEG	0.33	MCAL/LB	
		TDN	64		
		RFV	110		
		RFQ	126.6		
NSC %	11.87				

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ACCOUNT NO: 36571
SALESMAN: NORTHERNCORNBELT

=====		SAMPLE NO.	=====		DATE ANALYZED	=====
HAY AMFAP151 8S1 D2		1445799			06/28/18	

MOISTURE	13.24%	DRY MATTER	86.76%	HEM		12.12%
CRUDE PROT	16.21%	CALCIUM	0.91%	SUGARS		
SOLUBLE PROT	36.13%	PHOSPHORUS	0.23%	FRUCTOSE		1.70%
		MAGNESIUM	0.31%	GLUCOSE		0.64%
ADF	40.31%	POTASSIUM	1.63%	SUCROSE		2.00%
NDF	52.43%	CHLORIDE	0.54%	MANNITOL		0.23%
		SULFUR	0.16%			
		SODIUM	0.10%			
ADIP (HD)	1.20%					
LIGNIN	7.83%	ZINC	71 PPM			
		COPPER	7 PPM			
FAT	1.68%	IRON	1168 PPM			
STARCH	1.15%	MANGANESE	61 PPM			
ASH	11.63%					
CALCULATIONS						
IVDMD	61.39%	NFC	21.45			
NDFD-30	34.87%					
		NEL	0.58 MCAL/LB			
		NEM	0.47 MCAL/LB			
NITRATE-N PPM	376	NEG	0.22 MCAL/LB			
		TDN	57			
		RFV	102			
		RFQ	75.6			
NSC %	5.45					

This would be considered a "low sugar hay," suitable to be fed to horses with metabolic problems.

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This hay has higher protein, which may not be necessary for horses not in regular work.

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SALESMAN: NORTHERNCORNBELT

=====		SAMPLE NO.	=====	DATE ANALYZED	=====
HAY AM1MRNP142 2S2T1B1		1445800		06/28/18	

MOISTURE	15.31%	DRY MATTER	84.69%	HEM	9.69%
CRUDE PROT	19.33%	CALCIUM	1.16%	SUGARS	
SOLUBLE PROT	34.37%	PHOSPHORUS	0.27%	FRUCTOSE	3.97%
		MAGNESIUM	0.30%	GLUCOSE	1.73%
ADF	32.24%	POTASSIUM	1.85%	SUCROSE	2.12%
NDF	41.93%	CHLORIDE	0.19%	MANNITOL	0.08%
		SULFUR	0.19%		
		SODIUM	0.08%		
ADIP (HD)	1.05%				
LIGNIN	6.68%	ZINC	39 PPM		
		COPPER	10 PPM		
FAT	1.36%	IRON	227 PPM		
STARCH	2.42%	MANGANESE	29 PPM		
ASH	8.17%				
CALCULATIONS					
IVDMD	70.85%	NFC	32.61		
NDFD-30	42.71%				
		NEL	0.66 MCAL/LB		
		NEM	0.59 MCAL/LB		
NITRATE-N PPM	499	NEG	0.33 MCAL/LB		
		TDN	64		
		RFV	141		
		RFQ	134.1		
NSC %	10.22				

This is higher quality that would be ideal in animals with greater nutrient requirements (i.e stallions, growing horses)

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Analysis performed by:



730 Warren Road
Ithaca, NY 14850
1-877-819-4110
www.equi-analytical.com

Lab Sample No: 24948220

Page 1 of 1

Analyzed for:

STEPHANIE EMERY
17808 STREIT RD
HARVARD, IL 60033

Lab Desc: 103
Date Sampled: 07/20/2018
Date Received: 07/23/2018
Date Printed: 07/25/2018
Description 1: SUGAR GROVE 1ST CUTTING 7/18
Description 2:
Statement ID: MIXED GRASS

Visit our website www.equi-analytical.com for information on interpreting and using your results.

Results

% Moisture 8.6
% Dry Matter 91.5

	As Sampled		Dry Matter	
	%	g/lb.	%	g/lb.
Digestible Energy (DE), Mcal/lb		.84		.92
Crude Protein	8.1	37.0	8.9	40.4
Estimated Lysine	.28	1.3	.31	1.4
Lignin	4.4	20.1	4.8	22.0
Acid Detergent Fiber (ADF)	39.0	177.1	42.7	193.6
Neutral Detergent Fiber (aNDF)	59.7	270.6	65.2	295.9
WSC (Water Sol. Carbs.)	13.5	61.1	14.7	66.9
ESC (Simple Sugars)	5.9	26.5	6.4	29.0
Starch	.4	1.9	.5	2.1
Non Fiber Carb. (NFC)	16.2	73.7	17.8	80.6
Crude Fat	1.7	7.7	1.9	8.4
Ash	5.7	25.8	6.2	28.3
	%	g/lb.	%	g/lb.
Calcium	.31	1.39	.33	1.52
Phosphorus	.30	1.34	.32	1.46
Magnesium	.19	.86	.21	.94
Potassium	1.12	5.07	1.22	5.54
Sodium	.006	.025	.006	.028
	ppm	mg/lb.	ppm	mg/lb.
Iron	41	19	45	20
Zinc	30	14	33	15
Copper	5	2	6	3
Manganese	52	24	57	26
Molybdenum	2.3	1.0	2.5	1.1

As Fed

100% Dry

RFV

79



The sugar level (WSC) for this hay is 14.7% on a DM basis. The NSC would be 15.2% DM basis. This is a bit higher in sugar than desired for horses with metabolic problems, but should be fine with horses in work. The WSC contains fructans, which are digested in the hindgut and excess can lead to some problems such as laminitis.

Nutritionist
8/1/18