SGS North America

1405 32nd Ave Brookings, SD 57006

Certificate of Analysis



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Certificate Number: 20-009931 Report Date: August 07, 2020

ADVANTAGE LAND CO

510 MAIN AVE

STE 4

Client:

Brookings SD 57006

UNITED STATES

Sample Information:

SGS Sample Identification: MW20-05606.004

Client Sample Identification: NUEHARTH - WOLSEY 2ND CUT 2020 FIELD 2

Received: July 27, 2020

Sample/Product Type: Hay

The sample condition upon arrival was acceptable for testing.

Analysis		Result	Units	L.O.Q.	Method
Relative Feed Value (RFV)		148		N/A	SDSU Extension ExEx8149 (August
					2004)
Analysis	As Received	On Dry Matter	Uı	nits	Method

Analysis	As Received	On Dry Matter	Units	Method
Drymatter	* 82.66		%	AOAC 930.15
Moisture	* 17.34		%	AOAC 930.15
Crude protein content	* 18.40	22.20	%	AOAC 990.03
ADF	28.00	33.90	%	ANKOM Technology Method 5
NDF	32.60	39.40	%	ANKOM Technology Method 6
Total digestible nutrients	52.80	63.90	%	Calculation
Net Energy Lactation	0.55	0.66	Mcal/lb	Calculation
Net Energy Maintenance	0.53	0.64	Mcal/lb	Calculation
Net Energy Gain	0.30	0.36	Mcal/lb	Calculation
Calcium	1.46	1.77	%	ANA008CHEM
Copper	10.20	12.40	PPM	ANA008CHEM
Iron	211.00	255.00	PPM	ANA008CHEM
Potassium	1.87	2.26	%	ANA008CHEM
Magnesium	0.36	0.43	%	ANA008CHEM
Manganese	67.40	81.60	PPM	ANA008CHEM
Sodium	0.07	0.08	%	ANA008CHEM
Phosphorous	0.26	0.31	%	ANA008CHEM
Sulfur	0.26	0.32	%	ANA008CHEM
Zinc	41.80	50.60	PPM	ANA008CHEM

Abbreviations:

L.O.Q.: Limit of Quantification L.O.D.: Limit of Detection N/A: Not Applicable N.D.: Not Detected

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and/or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

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^{*} Analytical results were determined by a third party laboratory. Information concerning the subcontracted laboratory is available upon request. Liability for the subcontracted results remain with the subcontracted laboratory.

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Dustin Edmison Laboratory Manager

Start/End Analysis: 07/27/2020 - 08/07/2020

Method References: ANA008CHEM: AOAC 2011.14

EN17053:2018 USP <2232> EPA 200.7

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