



CUMBERLAND VALLEY ANALYTICAL SERVICES

Laboratory services for agriculture ... from the field to the feed bunk.

Farm: AGSCI
Desc: 10-7392 KIKUYU/CLOVER/RYE/LUCERNE
Submitter: FEED FIRST, NADIA
Account: FEED FIRST

Copies to:

Lab ID: 22104 121
Sampled:
Arrived: 06/01/2017
Completed: 06/05/2017
Reported: 06/15/2017

10-7392 KIKUYU/CLOVER/RYE/LUCERNE

SAMPLE INFORMATION

Lab ID: 22104 121 Version: 1.0
Crop Year: 2017 Series:
Feed Type: MIXED FORAGE Cutting#:
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 79.0
Dry Matter 21.0

PROTEINS

	% SP	% CP	% DM
Crude Protein			18.3
Adjusted Protein			
Soluble Protein		67.4	12.3
Ammonia (CPE)	19.1	12.9	2.35
ADF Protein (ADICP)		6.9	1.26
NDF Protein (NDICP)		10.2	1.87
NDR Protein (NDRCP)			
Rumen Degr. Protein		83.7	15.3
Rumen Deg. CP (Strep.G)			

FIBER

	% NDFom	NDFom %DM	% NDF	% DM
ADF			69.7	36.3
aNDF		47.9		52.1
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			8.91	4.64
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	53.8	25.8	49.6	25.8
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	58.4	28.0	53.7	28.0
NDF Digestibility (240 hr)	63.0	30.2	57.9	30.1
uNDF (30 hr)	46.2	22.1	50.4	26.3
uNDF (120 hr)	41.6	19.9	46.3	24.1
uNDF (240 hr)	37.0	17.7	42.1	21.9

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		55.4	7.2
Ethanol Soluble CHO (Sugar)		49.7	6.4
Water Soluble CHO (Sugar)			
Starch		14.8	1.9
Soluble Fiber		20.2	2.62
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.64
Fatty Acids (%Fat)			40.6
Crude Fat			4.04

MINERALS

Ash (%DM)	14.6
Calcium (%DM)	0.49
Phosphorus (%DM)	0.39
Magnesium (%DM)	0.19
Potassium (%DM)	3.69
Sulfur (%DM)	0.27
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

QUALITATIVE

Total VFA (%DM)	7.18
Lactic Acid (%DM)	1.12
Lactic as % of Total VFA	15
Acetic Acid (%DM)	4.78
Butyric Acid (%DM)	1.28
1, 2 Propanediol (%DM)	

Soil Contamination Probability Probable low to none
Nitrate Probability Probable low nitrate level
NIR Statistical Confidence Excellent prediction potential

ENERGY & INDEX CALCULATIONS

pH	5.07
TDN (%DM)	58.1
Net Energy Lactation (Mcal/lb)	0.59
Net Energy Maintenance (Mcal/lb)	0.55
Net Energy Gain (Mcal/lb)	0.30
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	3.15
NDF Dig. Rate (Kd, %HR, uNDF)	3.88
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	108
Relative Feed Quality (RFQ)	105
Milk per Ton (lbs/ton)	2270
Dig. Organic Matter Index (lbs/ton)	248
Non Fiber Carbohydrates (%DM)	13.0
Non Structural Carbohydrates (%DM)	8.3
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	9.1
Summative Index % (Mass Balance)	99.9
Additional sample information, source and lab pictures	



Values in bold were analyzed by wet chemistry methods.

Definitions and explanation of report terms



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11-7391 KIKUYU.CLOVER/RYE/LUCERNE

SAMPLE INFORMATION

Lab ID: 22104 122 Version: 1.0
Crop Year: 2017 Series:
Feed Type: MIXED FORAGE Cutting#:
Package: BASIC NIR

NIR ANALYSIS RESULTS

Moisture 80.3
Dry Matter 19.7

PROTEINS

	% SP	% CP	% DM
Crude Protein			16.5
Adjusted Protein			
Soluble Protein		65.8	10.9
Ammonia (CPE)	13.0	8.5	1.41
ADF Protein (ADICP)		7.9	1.30
NDF Protein (NDICP)		11.9	1.97
NDR Protein (NDRCP)			
Rumen Degr. Protein		82.9	13.7
Rumen Deg. CP (Strep.G)			

FIBER

	%NDFom %DM	NDFom %DM	% NDF	% DM
ADF			68.7	36.4
aNDF		49.9		53.1
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			8.50	4.51
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	55.5	27.7	52.0	27.6
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	60.1	30.0	56.4	29.9
NDF Digestibility (240 hr)	64.7	32.3	60.7	32.2
uNDF (30 hr)	44.5	22.2	48.0	25.4
uNDF (120 hr)	39.9	19.9	43.6	23.1
uNDF (240 hr)	35.3	17.6	39.3	20.8

CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		53.7	8.4
Ethanol Soluble CHO (Sugar)		32.7	5.2
Water Soluble CHO (Sugar)			
Starch		12.8	2.0
Soluble Fiber		8.5	1.34
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.32
Fatty Acids (%Fat)			37.8
Crude Fat			3.49

MINERALS

Ash (%DM)	13.2
Calcium (%DM)	0.42
Phosphorus (%DM)	0.39
Magnesium (%DM)	0.19
Potassium (%DM)	3.82
Sulfur (%DM)	0.26
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

QUALITATIVE

Total VFA (%DM)	8.44
Lactic Acid (%DM)	5.34
Lactic as % of Total VFA	63
Acetic Acid (%DM)	2.55
Butyric Acid (%DM)	0.55
1, 2 Propanediol (%DM)	

Soil Contamination Probability Probable low to none
Nitrate Probability Probable low nitrate level
NIR Statistical Confidence Excellent prediction potential

ENERGY & INDEX CALCULATIONS

pH	4.68
TDN (%DM)	58.6
Net Energy Lactation (Mcal/lb)	0.59
Net Energy Maintenance (Mcal/lb)	0.56
Net Energy Gain (Mcal/lb)	0.30
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	3.34
NDF Dig. Rate (Kd, %HR, uNDF)	4.21
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	106
Relative Feed Quality (RFQ)	112
Milk per Ton (lbs/ton)	2344
Dig. Organic Matter Index (lbs/ton)	242
Non Fiber Carbohydrates (%DM)	15.7
Non Structural Carbohydrates (%DM)	7.2
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	8.7
Summative Index % (Mass Balance)	98.5

Additional sample information, source and lab pictures



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