



# CUMBERLAND VALLEY ANALYTICAL SERVICES

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

**Farm:** FORMULA FORAGE AUSTRALIA  
**Desc:** 10134/15 LUCERNE SILAGE  
**Submitter:** NIR BILLABLE ACCOUNT, MALCOLM  
**Account:** ACE LABORATORY SERVICES

**Copies to:**

**Lab ID:** 19239 104  
**Sampled:** 11/18/2015  
**Arrived:** 11/22/2015  
**Completed:** 11/23/2015  
**Reported:** 11/25/2015

## 10134/15 LUCERNE SILAGE

### SAMPLE INFORMATION

Lab ID: 19239 104      Version: 1.0  
Crop Year:                      Series:  
Feed Type: LEGUME FORAGE      Cutting#:  
Package: BASIC NIR

### NIR ANALYSIS RESULTS

Moisture 54.2  
Dry Matter 45.8

### PROTEINS

	% SP	% CP	% DM
Crude Protein			23.0
Adjusted Protein			
Soluble Protein		69.1	15.9
Ammonia (CPE)	6.4	4.4	1.02
ADF Protein (ADICP)		6.6	1.53
NDF Protein (NDICP)		8.8	2.02
NDR Protein (NDRCP)			
Rumen Degr. Protein		84.6	19.5
Rumen Deg. CP (Strep.G)			

### FIBER

	%NDFom	NDFom	% NDF	% DM
	%DM	%DM		
ADF			93.9	33.6
aNDF		33.2		35.7
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			19.3	6.91
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	46.7	15.5	43.6	15.6
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	53.9	17.9	50.1	17.9
NDF Digestibility (240 hr)	56.6	18.8	52.8	18.9
uNDF (30 hr)	53.3	17.7	56.4	20.2
uNDF (120 hr)	46.1	15.3	49.9	17.8
uNDF (240 hr)	43.4	14.4	47.2	16.9

### CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		32.5	8.8
Ethanol Soluble CHO (Sugar)		9.1	2.4
Water Soluble CHO (Sugar)			
Starch		3.0	0.8
Soluble Fiber		65.1	17.6
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.48
Fatty Acids (%Fat)			44.3
Crude Fat			3.34

### MINERALS

Ash (%DM)	13.0
Calcium (%DM)	1.32
Phosphorus (%DM)	0.32
Magnesium (%DM)	0.21
Potassium (%DM)	3.54
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)	8.76
Lactic Acid (%DM)	6.82
Lactic as % of Total VFA	78
Acetic Acid (%DM)	1.94
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Titrateable Acidity (meq/100gm)	3.90

Soil Contamination Probability      Probable moderate contamination  
Nitrate Probability                      Probable high nitrate level  
NIR Statistical Confidence              Good prediction potential

### ENERGY & INDEX CALCULATIONS

pH	4.68
TDN (%DM)	61.0
Net Energy Lactation (mj/kg)	5.71
Net Energy Maintenance (mj/kg)	5.49
Net Energy Gain (mj/kg)	3.09
ME (mj/kg DM)	9.30
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	5.01
NDF Dig. Rate (Kd, %HR, uNDF)	3.88
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	163
Relative Feed Quality (RFQ)	171
Milk per Ton (kg/tonne)	1406
Dig. Organic Matter Index (kg/tonne)	307
Non Fiber Carbohydrates (%DM)	24.9
Non Structural Carbohydrates (%DM)	3.2
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	7.0
Summative Index % (Mass Balance)	101.1
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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14515 Industry Drive, Hagerstown, MD 21742  
www.foragelab.com | mail@foragelab.com

