



# CUMBERLAND VALLEY ANALYTICAL SERVICES

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

**Farm:** FORMULA FORAGE AUSTRALIA  
**Desc:** 5566/15 SILAGE  
**Submitter:** NIR BILLABLE ACCOUNT, MALCOLM  
**Account:** ACE LABORATORY SERVICES

**Copies to:**

**Lab ID:** 18363 070  
**Sampled:** 07/07/2015  
**Arrived:** 07/09/2015  
**Completed:** 07/10/2015  
**Reported:** 07/15/2015

## 5566/15 SILAGE

### SAMPLE INFORMATION

Lab ID:	18363 070	Version:	2.0
Crop Year:		Series:	
Feed Type:	SMALL GRAIN SILAGE	Cutting#:	
Package:	BASIC NIR		

### NIR ANALYSIS RESULTS

Moisture	54.9
Dry Matter	45.1

### PROTEINS

	% SP	% CP	% DM
Crude Protein			25.9
Adjusted Protein			
Soluble Protein		65.1	16.9
Ammonia	7.6	4.9	1.28
ADF Protein (ADICP)		4.9	1.26
NDF Protein (NDICP)		7.4	1.91
NDR Protein (NDRCP)			
Rumen Degr. Protein		82.6	21.4
Rumen Deg. CP (Strep.G)			

### FIBER

	%NDFom	NDFom	% NDF	% DM
	%DM	%DM		
ADF			85.8	28.6
aNDF		32.1		33.4
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			17.54	5.85
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	44.0	14.1	42.2	14.1
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	50.5	16.2	48.5	16.2
NDF Digestibility (240 hr)	55.2	17.7	52.8	17.6
uNDF (30 hr)	56.0	18.0	57.8	19.3
uNDF (120 hr)	49.5	15.9	51.5	17.2
uNDF (240 hr)	44.8	14.4	47.2	15.7

### CARBOHYDRATES

	% Starch	% NFC	% DM
Silage Acids		29.9	8.1
Ethanol Soluble CHO (Sugar)		12.3	3.4
Water Soluble CHO (Sugar)			
Starch		2.0	0.5
Soluble Fiber		59.2	16.1
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			1.43
Fatty Acids (%Fat)			46.3
Crude Fat			3.09

### MINERALS

Ash (%DM)	12.4
Calcium (%DM)	1.31
Phosphorus (%DM)	0.35
Magnesium (%DM)	0.21
Potassium (%DM)	3.88
Sulfur (%DM)	0.32
Sodium (%DM)	
Chloride (%DM)	
Iron (PPM)	
Manganese (PPM)	
Zinc (PPM)	
Copper (PPM)	
Nitrate Ion (%DM)	
Selenium (PPM)	
Molybdenum (PPM)	

### QUALITATIVE

Total VFA (%DM)	8.14
Lactic Acid (%DM)	5.94
Lactic as % of Total VFA	72
Acetic Acid (%DM)	2.20
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	
Titrateable Acidity (meq/100gm)	3.33

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

### ENERGY & INDEX CALCULATIONS

pH	4.92
TDN (%DM)	63.4
Net Energy Lactation (mj/kg)	5.94
Net Energy Maintenance (mj/kg)	5.81
Net Energy Gain (mj/kg)	3.38
ME (mj/kg DM)	9.70
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.04
NDF Dig. Rate (Kd, %HR, uNDF)	3.75
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	186
Relative Feed Quality (RFQ)	84
Milk per Ton (kg/tonne)	1503
Dig. Organic Matter Index (kg/tonne)	309
Non Fiber Carbohydrates (%DM)	25.3
Non Structural Carbohydrates (%DM)	3.8
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	6.6
Summative Index %	101.8
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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