



Colin & Erina Thompson
Cowra NSW



The Dairy

- 320 milkers
- 3 x milking per day
- Annual production: 4.5 million litres
- 7 Full time staff





Farm Size



- | | |
|---------------------|--------|
| • Total area: | 372 ha |
| • Irrigation area: | 160 ha |
| • Dryland Cropping: | 150 ha |







































Ammonia (CPE)	6.9	4.5	0.92
ADF Protein (ADICP)		6.9	1.40
NDF Protein (NDICP)		8.4	1.72
NDR Protein (NDRCP)			
Rumen Degr. Protein		82.6	16.8
Rumen Deg. CP (Strep.G)			

FIBER	%NDFom	NDFom %DM	% NDF	% DM
ADF			88.5	32.2
aNDF		34.6		36.4
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			20.2	7.34
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	43.1	14.9	41.0	14.9
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	46.6	16.1	44.3	16.1
NDF Digestibility (240 hr)	51.2	17.7	48.6	17.7
uNDF (30 hr)	56.9	19.7	59.0	21.5
uNDF (120 hr)	53.4	18.5	55.7	20.3
uNDF (240 hr)	48.8	16.9	51.4	18.7

CARBOHYDRATES	% Starch	% NFC	% DM
Silage Acids		30.2	9.1
Ethanol Soluble CHO (Sugar)		9.6	2.9
Water Soluble CHO (Sugar)			3.8
Starch		5.1	1.5
Soluble Fiber		59.4	18.0
Starch Dig. (7 hr, 4 mm)			
Fatty Acids, Total			3.67
Fatty Acids (%Fat)			97.0
Crude Fat			3.78

Molybdenum (PPM)

QUALITATIVE

Total VFA (%DM)	9.13
Lactic Acid (%DM)	7.22
Lactic as % of Total VFA	79
Acetic Acid (%DM)	1.91
Butyric Acid (%DM)	
1, 2 Propanediol (%DM)	

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

ENERGY & INDEX CALCULATIONS

pH	4.19
TDN (%DM)	62.6
Net Energy Lactation (mj/kg)	5.88
Net Energy Maintenance (mj/kg)	5.70
Net Energy Gain (mj/kg)	3.28
ME (mj/kg DM)	9.8
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4)	4.77
NDF Dig. Rate (Kd, %HR, uNDF)	4.6
Starch Dig. Rate (Kd, %HR, Mertens)	
Relative Feed Value (RFV)	163
Relative Forage Quality (RFQ)	168
Milk per Ton (kg/tonne)	14/3
Dig. Organic Matter Index (kg/tonne)	264
Non Fiber Carbohydrates (%DM)	30.20
Non Structural Carbohydrates (%DM)	4.4
DCAD (meq/100gdm)	
CNCPS / CPM Lignin Factor	7.8
Summative Index % (Mass Balance)	100.3
Additional sample information, source and lab pictures	



Values in bold were analyzed by wet chemistry methods.

Definitions and explanation of report terms



Dry Matter				42.0
PROTEINS	% SP	% CP	% DM	
Crude Protein				24.5
Adjusted Protein				
Soluble Protein		70.6		17.3
Ammonia (CPE)	4.6	3.2		0.79
ADF Protein (ADICP)		4.6		1.13
NDF Protein (NDICP)		5.2		1.29
NDR Protein (NDRCP)				
Rumen Degr. Protein		85.3		20.9
Rumen Deg. CP (Strep.G)				
FIBER	%NDFom	NDFom %DM	% NDF	% DM
ADF			88.3	28.0
aNDF		31.1		31.7
NDR (NDF w/o sulfite)				
peNDF				
Crude Fiber				
Lignin			18.8	5.95
NDF Digestibility (12 hr)				
NDF Digestibility (24 hr)				
NDF Digestibility (30 hr)	47.3	14.7	46.4	14.7
NDF Digestibility (48 hr)				
NDF Digestibility (120 hr)	51.5	16.0	50.5	16.0
NDF Digestibility (240 hr)	53.8	16.7	52.7	16.7
uNDF (30 hr)	52.7	16.4	53.6	17.0
uNDF (120 hr)	48.5	15.1	49.5	15.7
uNDF (240 hr)	46.3	14.4	47.3	15.0
CARBOHYDRATES	% Starch	% NFC	% DM	
Silage Acids		26.1		8.0
Ethanol Soluble CHO (Sugar)		10.8		3.3
Water Soluble CHO (Sugar)				4.8
Starch		3.5		1.1
Soluble Fiber		64.2		10.6

Manganese (PPM)
 Zinc (PPM)
 Copper (PPM)
 Nitrate Ion (%DM)
 Selenium (PPM)
 Molybdenum (PPM)

QUALITATIVE

Total VFA (%DM) 7.96
 Lactic Acid (%DM) 6.64
 Lactic as % of Total VFA 83
 Acetic Acid (%DM) 1.32
 Butyric Acid (%DM)
 1, 2 Propanediol (%DM)

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

ENERGY & INDEX CALCULATIONS

pH 4.47
 TDN (%DM) 66.3
 Net Energy Lactation (mj/kg) 6.27
 Net Energy Maintenance (mj/kg) 6.22
 Net Energy Gain (mj/kg) 3.75
 ME (mj/kg DM) 10.3
 NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin*2.4) 5.46
 NDF Dig. Rate (Kd, %HR, uNDF) 5.1
 Starch Dig. Rate (Kd, %HR, Mertens)
 Relative Feed Value (RFV) 197
 Relative Forage Quality (RFQ) 224
 Milk per Ton (kg/tonne) 1634
 Dig. Organic Matter Index (kg/tonne) 305
 Non Fiber Carbohydrates (%DM) 30.50
 Non Structural Carbohydrates (%DM) 4.4
 DCAD (meq/100gdm)

Feed Planner

Feeds	Milkers	Dry Cows & Heifers	Transition	Heifers 5-15 mths	Calves	Total Tonnes
No. of Head	320	125	35	120	120	
Cereal Silage	0	8.5	0	2	0	
Lucerne Hay	0	0	0	0	0.7	475.4
Lucerne Silage	6.5	0	0	2	0	30.7
Corn Silage	7.5	0	4	0	0	846.8
Oaten Hay	0	2	3.4	0	0.7	927.1
Straw	0.4	1.8	2.6	0	0	165.3
Total Forage	14.4	12.3	10	4	1.4	162.1
Grain	7	0	0	1	2.5	
Lupins	0	0	0	0	1	883.7
Canola	4.1	0	0.4	0.8	1.4	18.3
Cottonseed	0.5	0	0	0	0	568.7
Premix	1	0.5	0	0.3	0.2	58.4
Springer Mix	0	0	2.6	0	0	161.5
						33.2
Total	12.6	0.5	3	2.1	5.1	
Concentrate	27	12.8	13	6.1	6.5	
Total						

Milk Production



