WALSH FOCUS FARM

Justin & Libby Walsh

OPEN DAY #2, 25th July 2019

The Focus Farm Project is an initiative of Dairy NSW and is funded by Dairy Australia and Dairy NSW.

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Program

10.30am Welcome/Introduction

- Housekeeping
- Open Day aims
- Focus Farm Model
- Introduce the Focus Farm Team
- Key Farm Details
- Focus Farm aims/goals
- What has occurred this year – discussions & outcomes
- Current daily position (DOP)

11.15am Farm Tour (carpooling)

- View herd, pasture management etc

12.45– 1.15pm Lunch

- Historical Farm Performance (18/19 and 'Dream') and Budgets (19/20)
- 2018/19 DairyBase Data

Keeping you informed about the Focus Farm Project

- DNSW e-newsletter (Snapshot)
- DNSW hard copy newsletter (MilkFlow)
- DNSW Facebook page

Summary & Questions

2.30 Thank you's

Contents

The Focus Farm Project

Focus farms have been a part of the NSW dairy industry in various forms over the years. Under the current model and partnership between Dairy Australia and Dairy NSW the Walsh's are the third Focus Farm in four years. The project focuses on a farming family or enterprise and aims to improve operating surplus through better understanding of operational costs, maximising home-grown feed and reducing fixed costs. This is achieved by monitoring farm activities and expenditure.

The Focus Farm is not a "Best Practice" or "Demonstration" farm.

The Walsh Focus Farm is facilitated by experienced farm management consultant, John Mulvany, OMJ Consulting and will run until the end of August 2020.

Walsh Farm – Waljasper Holsteins

Justin and Libby have been running the farm for nearly 3.5 years following succession planning with Justin's parents, Colin and Sue. They lease the farm from Colin & Sue, having also bought a portion of the milking platform themselves and the herd. They have complete operational control of the business and are responsible for all operating costs and capital works costs. There are also 3 separate lease blocks; Hannigan's Lane (pasture/cropping), Burrier heifer block and Far Meadow heifer block.

The farm is predominantly a dry-land farm, however there is a small amount of irrigation on the Bottom Farm (10 ha centre pivot, 6 ha traveller).

Justin works fulltime in the business and has one permanent staff member, Matt. Libby, Colin and Sue help on the farm on a casual basis.

The Focus Farm Team

The Focus Farm has behind it a Support Group. This group is made up of 9 dairy farmers and 6 service providers. The role of the Support Group is to assist the Walsh's in achieving their business goals. They meet every 6-8 weeks on farm for about 4 hrs. This involves a review of actions since the previous meeting, a discussion of long-term strategies, upcoming operations and potential challenges and ways in which these may be addressed as well as a farm tour. Agreement on future directions are generally made on consensus of the group.

Farmers	Service Providers
Sam Graham	Anthony Bennett
James Greenacre	Greg Duncan
Doug McIntosh	Lucy Duncan
Stewart Menzies	Phil Duncan
Phil Tate	Ewin Lewis
Matt Warnes	Tim Williams
Rob Wilson	Chris Eyles
Tim Chittick	Josie McIntosh
Mel Chittick	
Karen Tate	

Farm Physicals

Total Area	214 ha
Effective Milking Area	134 ha (an extra 10ha brought onto milking platform in 18/19)
Cow Numbers	260 cows (peak this season); predominantly a Friesian herd with some stud cows but also some Jersey crosses. Annual stocking rate 1.9 cows/milking ha
Calving Pattern	Split calving (to match pasture growth curve) 60% Autumn (Calving 1st Feb to mid-May) 40% Spring (Calving 1st Aug – mid Nov) Plan to tighten up both calving periods.
Heifer blocks	Burrier Heifer Block – 57 ha Far Meadow Heifer Block – 80 ha Hannigan's Lane – 14.2 ha All blocks leased **NB – Effective total area = ~90 ha (lots of bush)
Feeding (18/19 FY)	1.9tDM conc./cow (wheat/barley/canola meal mix) + additive 0.3 t DM/cow purchased fodder fed (Oaten & Vetch Hay, Maize and Grass silage)
Feed Base	Kikuyu/ryegrass based pastures
Plant & Equipment	Dairy – upgraded – 90 degree, 24 aside swingover, 10,000L vat Duncan MK4 seeder, Vicon fert spreader, Hustler feed cart, Major Cyclone topper, Berti mulcher, 4 tractors, Skiold disc mill & feed system
Fertiliser	Urea & DAP. Nitrogen applied at 175kgN/milking ha (18/19)

Farm Goals

"To build a highly profitable and resilient business."

This will be achieved via;

- Improved understanding of operational costs
- Reducing fixed costs, where possible
- Growing more home-grown feed and utilizing it fully
- Milking a more 'efficient' cow
- Developing and reviewing an annual budget
- Continued analysis of farm financial & physical performance (DairyBase)

Challenges and actions so far

Below is a summary of some of the activity that has resulted as part of the Support Group meetings this year…

On the whole it is has been a very 'up and down' year with regards to seasons. Drought has been a factor in a lot of decision making and there has been an update to the fodder inventory at each meeting and feed budgeting done. This has enabled some level of comfort in knowing that feed supply has been secured leading into the following seasons.

In an effort to generate as much home-grown feed as possible there have been some calculated risks taken in applying nitrogen over pastures in dry conditions. The cost of purchased feed compared to the cost of nitrogen and the calculated response rates have meant that in the current high feed price environment, it has been a worthwhile exercise, even without irrigation.

Renovation of the autumn pastures with suppression of the whole farm, as opposed to just part of it as it has been done in the past was also a major decision. Experience from Support Group members who have done this successfully on their own farms was drawn on. The Autumn Pasture Renovation and Time of First Grazing spreadsheet later in this handout gives further detail on how this was undertaken. Consensus was that the suppression rate used was probably on the lighter end of what would be preferred, but the outcome achieved was well worthwhile.

Agistment of young stock has been another major topic for discussion. Lease blocks separate to the milking platform are used for young stock/dries. The capacity of these blocks to provide enough feed for the required number of animals is tight…. numbers have been crunched on the required replacements, with the business currently running surplus to requirement. There has been lots of discussion on whether the excess heifers present an opportunity or a cost to the business and what strategies could be implemented to deal with this. This potentially means finding more land for agistment and selling the excess and/or limiting the number of replacements to what is required.

New opportunities are also arising. Another 10 Ha of land area that was previously not being used has been brought into the milking platform which will add to the home-grown pasture base. Discussions and approvals are also well underway for an underpass to go under the railway crossing. This will open up the farm for much easier paddock rotation management as well as avoid having to take cows on a public road, once it all comes together. A new farm layout has been developed that includes the underpass and construction of the project will hopefully begin soon. Funding for the project will potentially come from a Farm Innovation Loan.

Farm Performance Summary (2016/17 - 2018/19)

The Walsh's have a very good understanding of the drivers of resilient and profitable dairy businesses operating in a pasture based system. They have undertaken analysis of their business performance for the last 3 years with their data in DairyBase. This has given them the ability to see areas of improvement and also areas that they need to focus on to increase profitability. The figures MUST be contexted with the seasons and farm resources they have to work with.

Physicals	2016/17	2017/18	2018/19
Milking Area	124	124	134
Cows	230	250	260
Annual Stocking Rate (cows/milking area)	1.9	2.0	1.9
Milk Solids (kgMS) - Total - Per cow	 110,031 478	 121,996 488	 121,016 465
Purchased Concentrates Fed (tDM/cow)	2.3	2.3	1.9
Other Purchased Fodder (tDM/cow)	0.4	1.0	0.3
Total Homegrown Feed Consumed (tDM/cow)	2.8	2.3	3.2
T DM/ha consumed	5.3	4.6	6.1
Financials			
Milk Price ($/kgMS net)	7.28	7.23	7.91
Concentrates Purchased ($/tDM)	314	465	551
Farm Working Expenses ($/kgMS)	5.80	6.36	6.62
COP – including inventory changes ($/kgMS)	7.46	6.42	7.19
EBIT ($/kgMS)	1.01	1.38	2.08
ROA (%) ROE (%)/	0.9 2.6	2.3 9	3.1 11.5
Milk Price(cents/kgMS)/Grain Price($/T)	2.31	1.55	1.44
SEASON RATING (Annual average)	3/10	1/10	6/10

Daily Operating Position (DOP) – 24/07/2019

DOP- DAILY OPERATING POSITION

"Get enough days right and the year looks after itself"

Daily details:	22/07/2019	comment		
Av. Cow LWT (kg)	580	bring on spring		
# cows milked	202	including 4 bulls		
#cows in vat	195			
Total daily litres	4898			
Litres/cow/d	25.12			
Fat%	3.59			
Protein%	3.47			
kgMS/cow/d	1.77	Total concentrate an addtv	**464**	$/tonne
Total Milking area (ha)	134		**46.4**	c/kg
Milking area NOT in rotation	10	Milk Price to conc price ratio	**1.95**	
Area in rotation (ha)	124			
Total daily allocation (ha)	3.5			
Current stocking density (cows/ha)	57.7			
Rotation length (days)	35			

Supplementary feeding	Name	$/t (as fed) (exGST + freight)	c/kg	kg/cow/d	$ fed/cow/d
Conc 1:	Wheat	469	46.9	2.315	1.09
Conc 2:	Barley	429	42.9	4.629	1.99
Conc 3:	Canola	483	48.3	0.111	0.05
Additive:					0.000
Additive:	DairyPAL	7630	76.3	0.025	0.191
Additive:	Lime	205	0.205	0.148	0.00303
Additive:	Bicarb	710	0.71	0.122	0.08662
Additive:	Magox	687	0.687	0.024	0.016488
Total Kg of concentrate +addtve	**7.4**				
Silage 2:	Rygrass				0.00
Silage 3:					
Hay 1:					
Silage 2:					
Total Supplementary feed cost/cow					3.42
Total kg/cow (as fed)				7.3	
Total addive cost/cow/day	0.297				

MARGIN OVER SUPPLEMENTARY FEED COST			
		c/L	Net L/cow
Monthly milk price ($/kgMS)	9.05		
Income ($)/cow	16.05	0.64	
Supplementary feed cost ($)/cow	3.42		5.4
MOSFC ($)/cow	**12.63**		**19.8**
Total Feed cost/kgms	**2.62**		

PASTURE CONSUMPTION & EAT RATE				
Energy required				
Maintenance (12% LWT)	70			
Milk (5.2MJ per Litre milk)	131			
Total Energy required	200			
Supplementary Feed	kg/cow	MJME	DM	Energy (MJ/cow)
Wheat	2.315	13	0.9	27
Barley	4.6287	12	0.9	50
Canola	0.111	12	0.9	1
Ryegrass silage				0
				0
				0
				0
Total Energy Imported (MJ/cow)			**78**	
SO Pasture Consumption:				
Requirement	200			
Supplement	78	**39**		
Deficit	122			
Energy available in pasture	10			
Pasture consumption(kgDM)/cow/d	12.2			
Eat Rate				
Number of cows x kgDM pasture	2463	kgDM/day		
Current milking area	124	ha		
Eat rate (kgDM/ha/d)	19.9	kgDM/ha/d		
(Current approx. growth rate)	25	kgDM/ha/d		

R1's (<12months)	R2's (12-24months
101	124

Fodder	Bales	FW (kgs)	DM (t)	DM%
ryegrass silage	0	900	0	0.45
ryegrass/oats silage	0	900	0	0.45
kykuyu/paspalum silage	319	750	107.6625	0.45
vetch hay	2	750	1.275	0.85
pasture hay	9	650	5.265	0.9
oats hay	0	650	0	0.9
Paspalum hay	0	600	0	0.8
		Total Tonnes	114	

Tonnes of dry matter per cow

0.57

CURRENT HERD PROFILE
3 Spring 2019 (1.5%)
117 Autumn 2019 (58%)
68 Spring 2018 (33.5%)
14 Autumn 2018 (7%)
Total 202 DIM = 195

Historical Daily Operating Position (DOP)

	9/08/2018	20/09/2018	16/10/2018	21/11/2018	20/12/2018	22/01/2019	14/02/2019	13/03/2019	11/04/2019	31/05/2019	1/07/2019
Milkers	207	209	220	235	225	212	209	225	239	258	222
Milkers in vat	200	198	212	226	221	205	200	211	225	250	215
kgMS/cow/day	1.5	1.65	1.8	1.66	1.7	1.49	1.4	1.39	1.55	1.6	1.69
L/cow/day	22.12	24	25.5	24	25.3	21.7	20.2	19.15	20.76	20.22	22.08
F%	3.3	3.7	3.8	3.8	3.68	3.74	3.81	4.08	4.07	4.46	4.22
P%	3.3	3.17	3.25	3.1	3.05	3.11	3.12	3.16	3.41	3.47	3.44
Milk Price ($/kgMS)	7.62	7.05	6.95	7.43*	8.00*	8.10*	8.00*	8.20*	8.50*	8.67*	8.67*
Income/cow	11.43	11.63	12.51	12.33	13.64	12.04	11.20	11.37	13.2	13.9	14.67
Supp. Feed Cost/cow	4.49	3.27	2.47	2.73	2.78	3.05	2.91	4.38	4.11	6.06	4.71
MOSFC/cow	**6.94**	**8.36**	**10.04**	**9.60**	**10.86**	**8.99**	**8.29**	**6.99**	**9.09**	**7.85**	**9.96**
Total feed cost/kgMS (incl. Pasture)				2.49	2.57	2.94	2.96	3.47	3.14	3.88	3.33
Nett L/cow	13.4	17	20.5	18.8	20.2	16.2	15	11.8	14.3	11.4	15

*includes drought levy of 3.3c/L

The DOP table above summarises the position on farm at each Support Group meeting. These numbers can generate some good discussion. The Margin Over Supplementary Feed Cost indicates the amount of money that is left per cow to service all the other cost on the business that day once all the supplementary feed costs have been accounted for. The Walsh's are aiming for a MOSFC of $10/cow.

Lactalis Income Estimate

LACTALIS AUSTRALIA

NSW Income Estimate - Forecast 2019/20

Supplier Code (Select)	5517
Supplier Name	JUSTIN & ELIZABETH WALSH
Commitment (Select)	4
Manual Volume Input (Select)	No
Zone	South Coast
Tenure	5
Sustainable Growth (select)	None

Scenario: 4 Year Contract

	TOTAL	Wgt AVG	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Volume	1,729,554		144,431	123,779	124,274	169,096	164,968	170,237	141,294	104,643	131,703	150,133	163,982	141,014
Base Volume (2019)	1,729,554		144,431	123,779	124,274	169,096	164,968	170,237	141,294	104,643	131,703	150,133	163,982	141,014
Fat %		3.78%	3.46%	3.48%	3.65%	3.62%	3.70%	3.68%	3.70%	3.83%	3.98%	3.92%	4.02%	4.32%
Protein %		3.22%	3.26%	3.20%	3.19%	3.23%	3.14%	3.07%	3.04%	3.11%	3.18%	3.34%	3.40%	3.42%
Fat Kg	65,377		4,997	4,308	4,536	6,121	6,104	6,265	5,228	4,008	5,242	5,885	6,592	6,092
Protein Kg	55,652		4,708	3,961	3,964	5,462	5,180	5,226	4,295	3,254	4,188	5,014	5,575	4,823
Solids Kg	121,029		9,706	8,268	8,500	11,583	11,284	11,491	9,523	7,262	9,430	10,900	12,167	10,914
Base Price			48.10	48.10	46.10	46.10	46.10	47.10	47.10	47.10	50.55	50.55	50.55	48.10
Base $$	829,510		69,471	59,538	57,290	77,953	76,050	80,182	66,549	49,287	66,576	75,892	82,893	67,828
Composition Adjustment														
Butterfat Adjustment $$	-578		-2,227	-1,796	-845	-1,380	-748	-926	-641	163	1,227	933	1,868	3,796
Protein Adjustment $$	16,758		1,914	1,025	926	1,821	547	-463	-769	87	873	2,985	4,075	3,738
Total Composition Adjustment $$	16,179		-313	-771	81	441	-202	-1,390	-1,410	249	2,100	3,917	5,942	7,534
Bonuses														
Volume Incentive $$	35,336		2,883	2,446	2,493	3,409	3,293	3,343	2,764	2,103	2,724	3,183	3,549	3,147
Quality $$	25,371		2,075	1,763	1,721	2,352	2,275	2,364	1,954	1,486	2,060	2,394	2,665	2,261
Commitment Rate			2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Commitment $$	43,239		3,611	3,094	3,107	4,227	4,124	4,256	3,532	2,616	3,293	3,753	4,100	3,525
Tenure $$	17,296		1,444	1,238	1,243	1,691	1,650	1,702	1,413	1,046	1,317	1,501	1,640	1,410
Zone Incentive$$	34,591		2,889	2,476	2,485	3,382	3,299	3,405	2,826	2,093	2,634	3,003	3,280	2,820
Sustainable Growth $$	0				0			0			0			0
			0	0	0	0	0	0	0	0	0	0	0	0
Total Bonuses $$	155,832		12,901	11,017	11,049	15,061	14,641	15,070	12,489	9,345	12,028	13,834	15,233	13,164
Market Support $$	69,182		5,777	4,951	4,971	6,764	6,599	6,809	5,652	4,186	5,268	6,005	6,559	5,641
TOTAL MILK INCOME	1,070,704		87,837	74,735	73,391	100,219	97,089	100,672	83,281	63,067	85,972	99,649	110,627	94,166
cpl	61.91		60.82	60.38	59.06	59.27	58.85	59.14	58.94	60.27	65.28	66.37	67.46	66.78
$/kg MS	8.85		9.05	9.04	8.63	8.65	8.60	8.76	8.75	8.68	9.12	9.14	9.09	8.63
DA Levy Total $	-5,881		-482	-408	-415	-569	-548	-556	-459	-349	-452	-530	-590	-522
GST (10%)	107,070		8,784	7,473	7,339	10,022	9,709	10,067	8,328	6,307	8,597	9,965	11,063	9,417
Total After Levies & GST	1,171,893		96,139	81,800	80,315	109,672	106,250	110,183	91,149	69,024	94,117	109,084	121,100	103,061

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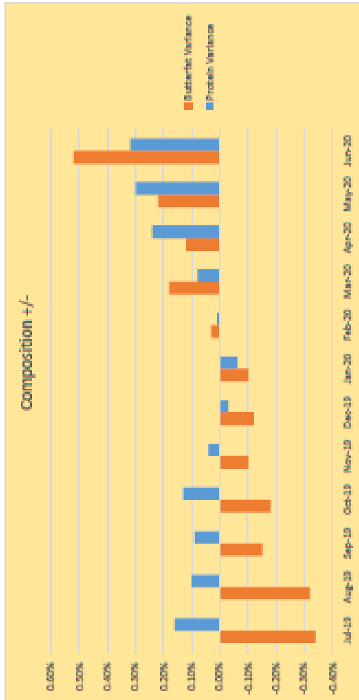


The 19/20 Cash Flow budget on the following page is based on the above income estimate for milk price and 18/19 DairyBase figures for most fixed costs with adjustments made for feed prices and volumes based on predictions for the upcoming year.

Walsh Budget – 2019/20

OMJ CONSULTING Annual Farm Budget and Financial Indicator

"Serving Agriculture for Thirty years"
Phone: 0409935578
email: OMJ@dcsi.net.au

Property Description

2018/2019 JUSTIN AND LIBBY BUDGET WITH THEIR STOCK SALES AND THEIR BALANCE SHEET

NAME:	**JUSTIN AND LIBBY WALSH**		Prepared by:	John Mulvany and Justin Walsh			
		Descriptions:	**Milking area**		**Support area**		
DATE:	**22-Jul-19**	**TOTAL AREA 274 HA**	**Irrigated**	10	**Irrigated**	0	
		LAND OWNED 37 HA	**Dryland**	124	**Dryland**	90	
		LAND LEASED 237 HA	**Total**	**134**	**Total**	**90**	

EXPENSES

Herd Costs		PER COW	
AB and Herd Test	22,400	80	
Animal Health	23,148	82.67	
2YO	0	0	
Yearlings	35,000	125	
Calf Rearing(to 1yo)	35,000	125	
Total Herd Costs	**115,548**		
Shed Costs			
Shed Power	14,230	50.82	
Dairy Supplies	9,321	33.29	
Total Shed Costs	**23,551**		
Feed Costs		$/T FRESH	
Fertiliser DAP,PKS,LIME PG	21,633		
Cereal Grain	220,567	425	
Canola	38,288	475	
Silage:m/p	0	350	
Cereal Hay	11,200	400	
Vetch Hay	14,000	500	
Irrigation	0		
Pasture silage and hay	25,472	0	
Agistment			
Nitrogen	33,880	121	$/COW
Pasture renovation	40,436		
Fuel and Oil	9,801		
Additives incl 2 T lead feed	28,000	100	$/COW
Other feed costs	0		
Total Feed Costs	**443,277**	**35%**	
GROSS MARGIN	**675,481**		
Overhead Costs			
Rates and water	23,221		
Farm Vehicles	5,770		
Farm Ins	8,820		
Repairs and Maint Farm	18,949		
Repairs and Maint Plant	14,400		
Other O'head e.g. Admin	14,342		
Total Overhead Costs	**85,502**		
Labour Costs			
Gross Wages	70,000		
Contractors	0		
Workcover	6,300		
Superannuation	7,000		
Training Courses	245		
Protective Clothing	775		
Staff Amenities	0		
Total Labour Costs	**84,320**		
FARM WORKING EXPENSES	**752,197**		
FARM OPERATING CASH SURPLUS	**505,659**	**FOCS**	
% OF FARM INCOME ON PRODUCTION COSTS	**59.8**		

Capital Costs	$
Plant	
Farm Improvement	40,000
Shares	0
Total Capital Costs	**40,000**
Personal Costs	
DRAWINGS	80,000
PAYG	0
Total Personal Costs	**80,000**
Finance Costs	
FARM LOAN $500K INT	26,460
DAIRY UPGRADE	33,706
FEED OUT CART	11,256
RURAL CO LOAN	8,550
LEASE MILKING	72,000
LEASE NON MILKING	0
BANK CHARGES	1200
Total Finance Costs	**153,172**
TOTAL EXPENDITURE	**1,025,369**

PHYSICAL FEATURES

TOTAL KG BF	70405	
TOTAL KG PR	59974	
TOTAL LITRES	1862560	
AVERAGE STOCKING RATE (AYC)	1.72	
AVERAGE COW NUMBERS(AYC)	230	
MAX HERD SIZE:	280	
AV F + PR /COW	466	
Total Production F +Pr	130,379	
MILKING AREA (HA):	134	
STOCKING RATE COWS/MILKING HA	2.09	cows/ha
MILK PRICE TOTAL SOLIDS EQUIV $/KGMS	**$8.85**	
BUTTERFAT PER COW:	251	KG
FAT + PROTEIN PER HA:	973	KG
LITRES PER COW	6652	
CENTS PER LITRE	62.0	
BUTTERFAT EQUIV PRICE	16.39	$/KG

INCOME

		$
Milk Income		1,153,856
Heifers sales		20,650
Culls and Calves JLW		61,350
Stock purchases		-18,000
Culls CSW		0
Rebates/Interest/refunds		40,000
Total Farm Income		**1,257,856**
Non Farm Income		80,000
TOTAL INCOME		**1,337,856**
	OPENING BALANCE	**0**
CASH	**SURPLUS/DEFICIT**	**$312,487**
WORLD	**FARM ONLY**	**232,487**
	CLOSING BALANCE	**$312,487**
TAX	**ACCRUAL BASED TAXABLE**	**333,438**
WORLD	**PROFIT**	

FINANCIAL INDICATORS

	$ per Litre	$ per kg ms	$ per cow	$ per ha
Income	0.718	10.3	4778	9984
Herd Costs	0.062	0.9	413	862.3
Shed Costs	0.013	0.2	84	175.75
Feed Costs	0.238	3.4	1583	3308
Overhead Costs	0.046	0.7	305	638.07
Labour(Paid)	0.045	0.6	301	629.25
Finance Costs	0.082	1.2	547	1143.1
Gross Margin	0.363	5.2	2412	5041
Operating Surp.	0.271	3.9	1806	3774
Budget surplus	0.168	2.4	1116	2332
Total Labour P+	0.100	1.43	668	

Farm Income on Finance Repayment:	**12.2%**	**$/L**
Farm Working expenses per kg milk solids	**$5.77**	**0.40**
Imported Energy	**37.1%**	
Cost of production excluding inventory chr	**6.96**	**$/KGMS**
Cost of production including inventory chr	**6.96**	**$/KGMS**

FEED

	Tonne / cow
Cereal Grain	1.8535
Canola	0.28788
Silage:m/p	0
TOTAL	2.1
AV Conc. Price ($/T)	432
Purchased Feed % Of Total	**43.0**
Cereal Hay	0.1
Vetch Hay	0.1
Pasture silage	-0.843
Calf Pellets	0
Purch. Fodder	0
Pasture and crops direct $/TDM	**103.5**
PASTURE CONSUMPTION	
(Tonnes D.M./HA)	**7.2**
(Tonnes D.M./COW)	**3.5**

PEOPLE PRODUCTIVITY: LABOUR			
PAID HRS	3300	26	$/HR
IMPUTED HRS	3360	31	$/HR
TOTAL HRS	6660		
MS/HR	19.6		
50 HOUR LABOUR UNITS	2.6		
MS PER 50 HOUR LABOUR UNIT	50899		

OPENING VALUES

EQUITY SUMMARY	$
Total Assets	2,366,984
Total Liabilities	795,344
Net Worth	1571640
% Equity	66.40%

RETURN ON CAPITAL-BUSINESS EFFICIENCY WORLD	
ADJUSTMENTS:L'STOCK/FODDER	0.0
OPERATOR ALLOWANCE	102648.0
DEPRECIATION	52500.0
$ EBIT	**350,511**
% RETURN ASSETS OWNED	**11.8**
$ EBIT PER KG MS	**2.69**

RETURN ON EQUITY (ROE)	
EQUITY NET WORTH	1,571,640
ROE(EBIT LESS INTEREST)	**302,790**
% ROE(ROE/EQUITY%)	**19.27**

PRODUCTION NET OF PURCHASED FEEDS	
TOTAL NET SOLIDS FARM KG	95119
NET SOLIDS PER COW KG	340
NET SOLIDS PER HA KG	710

SENSITIVITY OF BUDGET

CHANGES in INCOME and PRODUCTION

Price	Av KG/Cow **456**	**466**	**476**
8.25	211,159	234,259	257,359
8.55	249,433	273,373	297,313
8.85	287,707	312,487	337,267
9.15	325,981	351,601	377,221
9.45	364,255	390,715	417,175

USE/AV. PRICE OF CONCENTRATES

$/tonne	tonnes / cow **1.9**	**2.1**	**2.4**
342	390370	366450	342529
372	374483	348462	322442
402	358595	330475	302354
432	342708	312487	282266
462	326820	294499	262179
492	310932	276512	242091
522	295045	258524	222004

ARE WE THERE YET???

No... so it's the perfect Focus Farm

	18/19	"The Dream"
Physicals		
Cows	260	280
Total Solids	121,016kg	151,200kg
Production per cow		
Milk Solids	465	540
Litres	6,652	7,200
Fat %	3.78	4.1
Protein %	3.22	3.4
Pasture		
tDM/ha	6.9	7.6
tDM/cow	3.6	3.4
Concentrate (tDM/cow)	1.9	2.3
Purchased Fodder (tDM/cow)	0.3	0.35
Financials		
Cost of Production ($/kgMS)	7.19	5.66
Farm Operating Surplus		
(Income - Farm Working Expenses)		
$/kgMS	2.65	3.08
$/cow	1234	1,666
EBIT		
$/kgMS	2.08	2.06
Per Cow	969	1,111

The 18/19 year is closer to "The Dream" than 16/17 was.

YTD Payment Summary – Calculating Net Milk Price:

Printed: 10-Jul-19 17:01

Lactalis Australia Pty Ltd
ABN 56 072 928 879
Birnie Avenue
Lidcombe NSW 2141
Telephone: 07 38400247 Facsimile:

YTD Payment Summary
Statement for : July , 2018 - June , 2019

LACTALIS AUSTRALIA

E.A. WALSH & J.F. WALSH (355171)
ABN 25105224774
WALJASPER
10 TURNERS LANE
JASPERS BRUSH NSW 2535

Description	Cents /Litre	Quantity (Litres)	MilkFat (Kgs)	Protein (Kgs)	Milk Solids (Kgs)	$ Payment
NSW Base Volume	45.88	1,729,554	65,359.86	55,656.33	121,016.19	793,505.01
Total Supply		**1,729,554**	**65,359.86**	**55,656.33**	(C) **121,016.19**	**793,505.01**
Bonuses/Penalties						
Commitment Bonus						16,573.39
Logistics Proximity						25,943.34
Market Support						53,994.06
Fat Adjustment						657.93-
Protein Adjustment						16,788.86
Qual. Bon./Penalty						24,292.05
Growth Incentive						2,612.73
Volume Incentive						30,101.94
Gross Payment (before GST)	**55.69**					(A) **963,153.45**
Price per KG Milk Solids: $ 7.96 Kg/MS						
GST on Milk						96,315.35
Gross Payment (Incl. GST)	**61.26**					**1,059,468.80**
All Milk Levy						(B) 5,880.85-
Net Payment	**60.92**					**1,053,587.95**

Weighted Average Milkfat: 3.78% / **Standard:** 3.80% / **Total Yield:** 65,359.86 Kgs
Weighted Average Protein: 3.22% / **Standard:** 3.10% / **Total Yield:** 55,656.33 Kgs

CALCULATING YOUR TRUE (NET) MILK PRICE (ex GST + Levies) = (A−B)/C
= ($963,153.45 − $5,880.85)/121,016.19 kgMS
= $957,272.60/121,016 kgMS
= $7.91/kgMS

2019 Soil Tests

The soil tests are briefly summarised in the following table – in Justin's words "no surprises". The results are in line with paddock usage. Tim has provided his interpretation, which will be a handout for a future meeting. It would be good if Phil Duncan and Tim could both discuss their different interpretations as they do have different philosophies.

	P (Col)	K (AA)	S KCl	pH $H_2O/CaCl_2$	Comments
Top Night (FMZ 2)	360	1.00	27	4.9/5.4	High in all nutrients. Only nitrogen required
FMZ 1	300	0.81	36	4.8/5.2	High in all nutrients. Only nitrogen required
FMZ 4 (under pivot)	560	0.67	220	7.6/8.1	Water content impact on nutrients. High sodium and chloride. Requires flushing with gypsum
FMZ 5 (swamp bottom)	280	0.40	480	4.3/4.5	High aluminium, high sodium. Structural and pH problems – lime applied.
FMZ 6 (higher hay paddock bottom farm)	220	0.43	19	4.7/5.1	No aluminium or structural issues. Only moderate/low potassium levels. Needs PKS

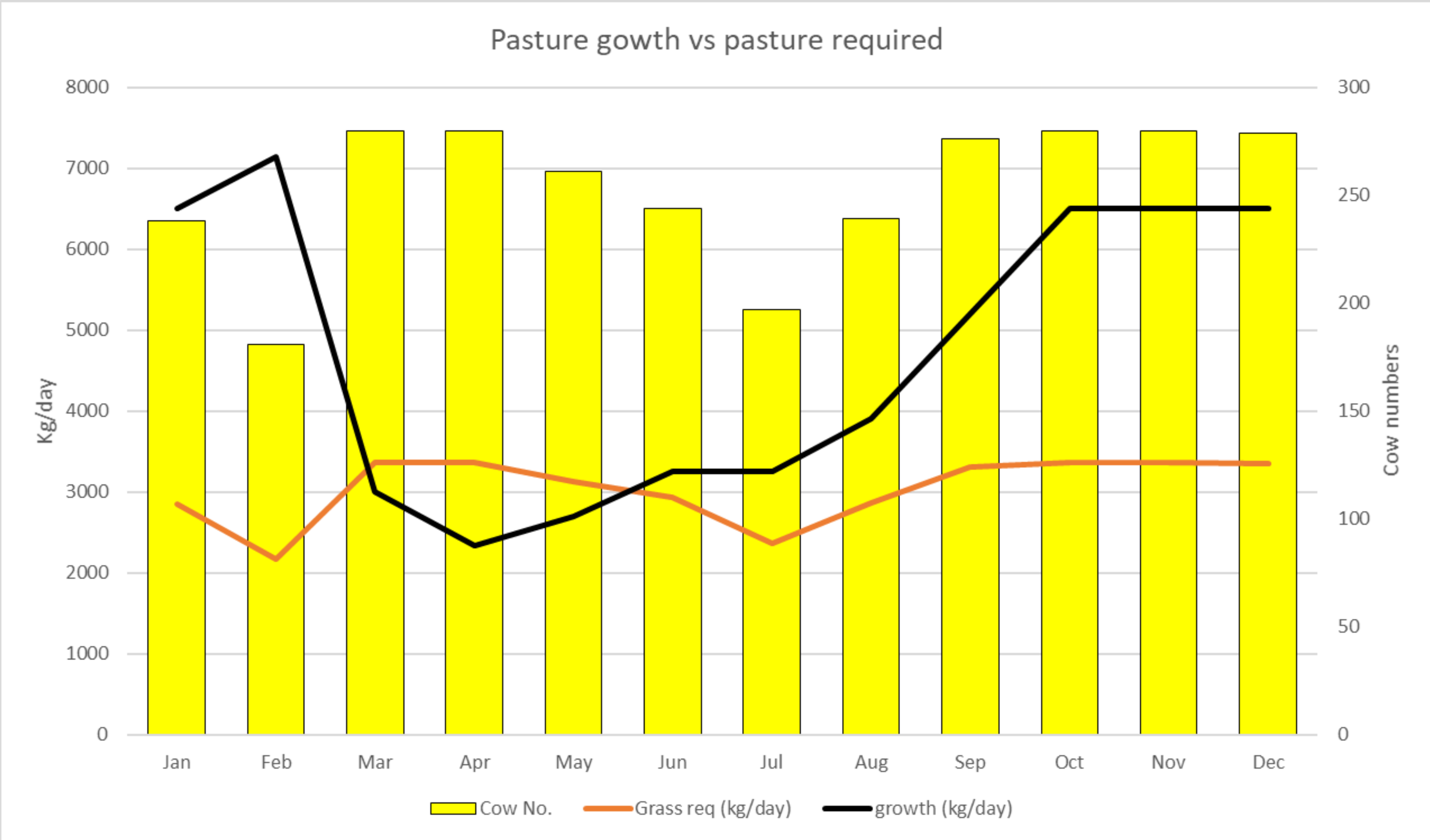
Autumn 2019 – Pasture Renovation and Time of First Grazing

Paddock	Name	Date	Area (ha)	Spray	Seed	Fertilizer	1st graze (6w)
BF	below bank	11/03/2019	6	3L/ha glysophate	75kg/ha Grazza 55 oats	100kg/ha DAP	22/04/2019
BF - I	Wooden bridge	11/03/2019	4	3L/ha glysophate	75kg/ha Grazza 55 oats	100kg/ha DAP	22/04/2019
TF - I	Corner	12/03/2019	3	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	23/04/2019
TF - H	2nd last	12/03/2019	3.23	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	23/04/2019
TF - G	Lenahans	12/03/2019	3	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	23/04/2019
TF - F	John/Dot	12/03/2019	2.46	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	23/04/2019
BF - M	Right long	13/03/2019	9.76	350ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	24/04/2019
BF - K	Sludge 2	17/03/2019	3.86	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	28/04/2019
TF - E	Corn Picker	18/03/2019	2.96	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	29/04/2019
BF - J	Sludge 1	18/03/2019	4.26	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	29/04/2019
TF - A	Beside bull	23/03/2019	2.97	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	4/05/2019
TF - B	little hill	23/03/2019	1.5	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	4/05/2019
BF - L	Left long	24/03/2019	9.72	350ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	5/05/2019
BF - C	Bank +	26/03/2019	6.22	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Wheat + 30 kg/ha Aston Ryegrass	100kg/ha DAP	7/05/2019
BF - F	New	29/03/2019	2.63	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Wheat + 30 kg/ha Aston Ryegrass	100kg/ha DAP	10/05/2019
BF - B	long	29/03/2019	7.1	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	10/05/2019
BF - A	Top Group 1/2	1/04/2019	2	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/05/2019
BF - P	Below Peters	1/04/2019	2.47	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/05/2019
BF - O	Laneways	1/04/2019	3.82	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/05/2019
TF - K	5 sided	10/04/2019	1.6	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	22/05/2019
TF - L	New Gully	11/04/2019	2.12	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	23/05/2019
TF - N	Gully	13/04/2019	4.47	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	25/05/2019
TF - O	Square	15/04/2019	2.85	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	27/05/2019
TF - C	Hill	15/04/2019	2.05	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	27/05/2019
TF - D	Corner	15/04/2019	1.95	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	27/05/2019
BF - N	Irrigator (under)	17/04/2019	12.5	3L/ha glysophate + 350ml/ha Cobalt advance	35kg/ha Shogun Ryegrass	100kg/ha DAP	29/05/2019
BF - H	Square	29/04/2019	4.12	3L/ha glysophate + 350ml/ha Cobalt advance	35kg/ha Shogun Ryegrass	100kg/ha DAP	10/06/2019
TF - J	Big flat	1/05/2019	3.65	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	12/06/2019
BF - A	Top Group 2/2	2/05/2019	3.79	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/06/2019
BF - D	Pig	2/05/2019	3.17	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/06/2019
BF - R	Front Peters	3/05/2019	3.1	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	14/06/2019
BF - G	Drain +	15/05/2019	4.08	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	26/06/2019
BF - N	irrigator (outside)	2/07/2019	4.09	250ml/glysophate + 350ml/ha Cobalt advance	40 kg/ha Grazza 55 oat + 30kg/ha Asotn Ryegrass	100kg/ha DAP	13/08/2019

Oats (ha)	Oats/Ryegrass (ha)	Ryegrass (ha)	Wheat/Ryegrass (ha)
10	99.03	16.62	8.85
Top Farm (ha)	**Bottom Farm (ha)**		
37.81	96.69		

Total planted (ha)	134.5
Remaining (ha)	5

Pasture growth v. Pasture required



Rotation Right Tool – Top Farm

Rotation Right Tool - Guideline to determining area of pasture/crop to be offered to the herd in order to maintain a desired rotation length																									0.32		
Note: Tool set for One Feed per day				kg var per feed		1or0	Name:												Developed by Phil Shannon- 'Rotation Right-19-PS.xls' Mod. 2011								
Area in Current Rotation		37.8	Hectares	1		1	**15**			Underfeeding risk			**Desired Rotation Length (Days)**									Overfeeding risk			**60**		
	Cow number	220.0	Est. Feed / Ha	1000			**15**			**17**			**20**			**24**			**30**			**40**			**60**		
Area to be offered each grazing (d) - Hectares							2.52			2.21			1.89			1.58			1.26			0.95			0.63		
1.5124		No of grazings per day		1			11.5	11.5		10.0	10.0		8.6	8.6		7.2	7.2		5.7	5.7		4.3	4.3		2.9	2.9	
Paddock Name and Type		Paddock Area Details (e)		Paddock Rating '10' = Average			Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock	
Identification	Type	Area (ha)	Area in rot'n	1000	10																						
A - Beside bull	Rye/Kyk	2.97	2.97	1000	10	10	1.2	**1**	13.5	1.3	**1**	13.5	1.6	**2**	6.8	1.9	**2**	6.8	2.4	**2**	6.8	3.1	**3**	4.5	4.7	**5**	2.7
B - Little Hill	Rye/Kyk	1.50	1.50	1000	10	10	0.6	**1**	6.8	0.7	**1**	6.8	0.8	**1**	6.8	1.0	**1**	6.8	1.2	**1**	6.8	1.6	**2**	3.4	2.4	**2**	3.4
C - Hill	Rye/Kyk	2.05	2.05	1000	10	10	0.8	**1**	9.3	0.9	**1**	9.3	1.1	**1**	9.3	1.3	**1**	9.3	1.6	**2**	4.7	2.2	**2**	4.7	3.3	**3**	3.1
D - Corner	Rye/Kyk	1.95	1.95	1000	10	10	0.8	**1**	8.9	0.9	**1**	8.9	1.0	**1**	8.9	1.2	**1**	8.9	1.5	**2**	4.4	2.1	**2**	4.4	3.1	**3**	3.0
E - Corn Picker	Rye/Kyk	2.96	2.96	1000	10	10	1.2	**1**	13.5	1.3	**1**	13.5	1.6	**2**	6.7	1.9	**2**	6.7	2.3	**2**	6.7	3.1	**3**	4.5	4.7	**5**	2.7
F - John/Dot	Rye/Kyk	2.46	2.46	1000	10	10	1.0	**1**	11.2	1.1	**1**	11.2	1.3	**1**	11.2	1.6	**2**	5.6	2.0	**2**	5.6	2.6	**3**	3.7	3.9	**4**	2.8
G - Lenahans	Rye/Kyk	2.99	2.99	1000	10	10	1.2	**1**	13.6	1.4	**1**	13.6	1.6	**2**	6.8	1.9	**2**	6.8	2.4	**2**	6.8	3.2	**3**	4.5	4.7	**5**	2.7
H - 2nd last	Rye/Kyk	3.23	3.23	1000	10	10	1.3	**1**	14.7	1.5	**1**	14.7	1.7	**2**	7.3	2.1	**2**	7.3	2.6	**3**	4.9	3.4	**3**	4.9	5.1	**5**	2.9
I - Corner	Rye/Kyk	3.01	3.01	1000	10	10	1.2	**1**	13.7	1.4	**1**	13.7	1.6	**2**	6.8	1.9	**2**	6.8	2.4	**2**	6.8	3.2	**3**	4.6	4.8	**5**	2.7
J - Big Flat	Rye/Kyk	3.65	3.65	1000	10	10	1.4	**1**	16.6	1.7	**2**	8.3	1.9	**2**	8.3	2.3	**2**	8.3	2.9	**3**	5.5	3.9	**4**	4.1	5.8	**6**	2.8
K - 5 side	Rye/Kyk	1.60	1.60	1000	10	10	0.6	**1**	7.3	0.7	**1**	7.3	0.8	**1**	7.3	1.0	**1**	7.3	1.3	**1**	7.3	1.7	**2**	3.6	2.5	**3**	2.4
L - New Gully	Kyk	2.12	2.12	1000	10	10	0.8	**1**	9.6	1.0	**1**	9.6	1.1	**1**	9.6	1.3	**1**	9.6	1.7	**2**	4.8	2.2	**2**	4.8	3.4	**3**	3.2
N - Gully	Rye/Kyk	4.47	4.47	1000	10	10	1.8	**2**	10.2	2.0	**2**	10.2	2.4	**2**	10.2	2.8	**3**	6.8	3.5	**4**	5.1	4.7	**5**	4.1	7.1	**7**	2.9
O - Square/new	Rye/Kyk	2.85	2.85	1000	10	10	1.1	**1**	13.0	1	**1**	13.0	1.5	**2**	6.5	1.8	**2**	6.5	2.3	**2**	6.5	3.0	**3**	4.3	4.5	**5**	2.6
							0.0	**0**	#####	0.0	**0**	#####	0.0	**0**	#####	0.0	**0**	#####	0.0	**0**	#####	0.0	**0**	#####	0.0	**0**	#####

Rotation Right Tool – Bottom Farm

Rotation Right Tool - Guideline to determining area of pasture/crop to be offered to the herd in order to maintain a desired rotation length 0.69

Note: Tool set for One Feed per day				kg var per feed		1or 0	Name:												Developed by Phil Shannon- 'Rotation Right-19-PS.xls' Mod. 2011								
Area in Current Rotation		82.6	Hectares	1		1	15			Underfeeding risk			Desired Rotation Length (Days)									Overfeeding risk			60		
	Cow number	230.0	Est. Feed / Ha	2061			15			17			20			24			30			40			60		
Area to be offered each grazing (d) - Hectares							5.50			4.82			4.13			3.44			2.75			2.06			1.38		
3.3024		No of grazings per day		1			49.3	49.3		43.1	43.1		37.0	37.0		30.8	30.8		24.7	24.7		18.5	18.5		12.3	12.3	
Paddock Name and Type		Paddock Area Details (e)		Paddock Rating '10' = Average			Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock		Estimated Feeds Rounded	Number of feeds from paddock	
Identification	Type	Area (ha)	Area in rot'n	2000	10																						
A - Top Group	Rye/Kyk	5.79	5.79	2000	10	10	1.0	1	50.3	1.2	1	50.3	1.4	1	50.3	1.6	2	25.2	2.0	2	25.2	2.7	3	16.8	4.1	4	12.6
B - Long	Rye/Kyk	7.10	7.10	2000	10	10	1.3	1	61.7	1.4	1	61.7	1.7	2	30.9	2.0	2	30.9	2.5	3	20.6	3.3	3	20.6	5.0	5	12.3
C - Bank +	Rye/Kyk	6.22	6.22	2000	10	10	1.1	1	54.1	1.3	1	54.1	1.5	1	54.1	1.8	2	27.0	2.2	2	27.0	2.9	3	18.0	4.4	4	13.5
D - Pig	Rye/Pas	3.17	3.17	2000	10	10	0.6	1	27.6	0.6	1	27.6	0.7	1	27.6	0.9	1	27.6	1.1	1	27.6	1.5	1	27.6	2.2	2	13.8
F - New	Rye/Pas	2.63	2.63	2000	10	10	0.5	0	#####	0.5	1	22.9	0.6	1	22.9	0.7	1	22.9	0.9	1	22.9	1.2	1	22.9	1.9	2	11.4
G - Drain +	Rye/Pas	4.08	4.08	2000	10	10	0.7	1	35.5	0.8	1	35.5	1.0	1	35.5	1.2	1	35.5	1.4	1	35.5	1.9	2	17.7	2.9	3	11.8
H - Square	Rye/Pas	4.12	4.12	2000	10	10	0.7	1	35.8	0.8	1	35.8	1.0	1	35.8	1.2	1	35.8	1.5	1	35.8	1.9	2	17.9	2.9	3	11.9
I - W/Bridge	Rye/Pas	4.33	0.00	2000	10	10	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####
J - Sludge 1	Rye/Pas	4.26	4.26	2000	10	10	0.8	1	37.0	1	1	37.0	1.0	1	37.0	1.2	1	37.0	1.5	2	18.5	2.0	2	18.5	3.0	3	12.3
K - Sludge 2	Rye/Pas	3.86	3.86	2000	10	10	0.7	1	33.6	0.8	1	33.6	0.9	1	33.6	1.1	1	33.6	1.4	1	33.6	1.8	2	16.8	2.7	3	11.2
L - Left Long	Rye/Pas	9.72	9.72	2000	10	10	1.7	2	42.3	2.0	2	42.3	2.3	2	42.3	2.7	3	28.2	3.4	3	28.2	4.6	5	16.9	6.9	7	12.1
M - Right Long	Rye/Pas	9.72	9.72	2000	10	10	1.7	2	42.3	2.0	2	42.3	2.3	2	42.3	2.7	3	28.2	3.4	3	28.2	4.6	5	16.9	6.9	7	12.1
N - T/Irrigator	Rye/Kyk	16.59	12.50	2400	12	12	2.6	3	43.5	3.0	3	43.5	3.5	4	32.6	4.2	4	32.6	5.3	5	26.1	7.1	7	18.6	10.6	11	11.9
O- Lane ways	Rye/Pas	3.82	3.82	2000	10	10	0.7	1	33.2	0.8	1	33.2	0.9	1	33.2	1.1	1	33.2	1.3	1	33.2	1.8	2	16.6	2.7	3	11.1
P - Peters	Rye/Kyk	2.47	2.47	2000	10	10	0.4	0	#####	0.5	0	#####	0.6	1	21.5	0.7	1	21.5	0.9	1	21.5	1.2	1	21.5	1.7	2	10.7
Q - Below bank	Rye/Pas	6.00	0.00	2000	10	10	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####	0.0	0	#####
R - Front Peters	Rye/kyk	3.10	3.10	2000	10	10	0.5	1	27.0	0.6	1	27.0	0.7	1	27.0	0.9	1	27.0	1.1	1	27.0	1.5	1	27.0	2.2	2	13.5

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COST OF PRODUCTION PER KGMS OR LITRE

IS IT THAT IMPORTANT? SURE IS!

APRIL 2019

Cost of Production (COP) is often used in discussions regarding the dairy industry. But the calculation is not well understood and, in reality, not many dairy farmers bother to calculate their own figure. This raises two questions, "What actually is COP?" and "How important is it really?"

When calculating Cost of Production both the following cost categories are included:

- **Cash costs** – the farm working expenses of herd, shed, feed, overheads and paid labour plus
- **Non-cash costs** - the commercial value for the farmer's labour, depreciation and changes in inventories.

Because non-cash costs are included, in one sense it is a theoretical figure. Also, as most farmers actually "draw" about half of their commercial labour value as drawings, in many cases the calculated COP does not **actually** occur.

However, it is a calculation that **absolutely reflects the true cost of production** on a farm. When it is so high that it does not leave an adequate margin between the farm income (milk price plus livestock sales) wealth creation via debt reduction or further investment, or good lifestyle will suffer until eventually someone in the business will question the value of dairy farming.

Cost of Production reflects the true cost of producing milk, as opposed to "cash costs" which only tell you how much you paid for cash inputs.

Once a Cost of Production has been calculated it must be examined very closely and appropriately interpreted.

The following comments regarding Cost of Production are made based on analysis of many sets of dairy farm data throughout Australia over 25 years.

- A low COP will provide resilience to milk price volatility.

- In general, the highest cost categories are feed and labour.

- Highly profitable dairy farms will tend to have a low cost of production relative to their farming system but not the lowest. This reflects the fact that the most profitable farms will tend to achieve higher levels of production profitably by additional expenditure. The very low-cost producer will not spend the additional amount and opt for a lower risk profile. This is the skill of the margin farmer who exploits opportunity but doesn't expose the business to excessive risk.

- An unacceptably high COP which exposes the business to very high risk and low profit per unit of output (which combined pose a very significant future threat) is an issue on many farms.

A high COP can be caused by some or all of the following which are obvious to many good farmers but still need listing:

- High input dairy farming systems (TMR, PMR) have a higher Cost of Production even under very good management. Estimated difference **$1.00 -$1.50/kg MS extra COP**.

- In general, as the proportion of marginal milk increases (milk from supplements which are mainly purchased) the average Cost of Production will increase. As stocking rates or per cow production increase supposedly to "dilute" costs, unless more pasture is grown and utilised then the proportion of higher cost purchased feed increases and COP increases.

- Cost control, or spending in the right places, is an absolute skill of some dairy farm operators. This is not just about being tight. It's about being tight in the right areas. **Estimated impact on COP is $0.40/kg MS**.

- In regard to purchased feed costs, the ability of some farmers to achieve a lower price per tonne for a whole range of feed inputs and additives is obvious. What's not so obvious is the impact of feeding to production and even over feeding. This means that instead of 90 kg milk solids response from a tonne of concentrate the last tonne might actually only generate 45 kg. It is a fact that in regard to inputs the position of optimum profit occurs at lower production than maximum production. The same cost with lower output means that COP will be higher per unit output. **Estimated impact on COP $0.50/kg MS.**

- High fertiliser and re-sowing levels which do not result in high pasture utilisation rates will increase COP. High pasture consumption figures are generally assisted by good farm subdivision with enough paddocks, good laneway access, and water supply. Cows have to be trained to graze very well by their managers! **Estimated impact on COP $0.40/kg MS.**

- Most areas will have a degree of seasonality of pasture growth. There will be times when it is more difficult to feed cows cheaply. If milk production (which means the pattern in which cows calve) does not reflect the seasonal pattern of pasture growth, then costs will be higher. This does NOT mean all herds have to have one calving period. **Estimated impact on COP $0.50/kg MS.**

- In theory, a high level of home grown feed is desirable to keep costs low. However, this needs to be extended further to a high level of direct grazed home-grown feed. If in fact most of the home-grown feed is harvested, stored, and eventually fed to cows then it is no longer particularly cheap feed. In cases where a high stocking rate on the milking platform is being sustained by multiple support areas that are cropped, then feed harvested and carted back to the milking area then feed costs will increase and hence overall COP. **Estimated impact on COP $0.30/kg MS.**

- If funding for improved infrastructure e.g. dairies and laneways, does not occur as herd size increases, then this lack of capital spending transfers to a higher operational labour expense. This is also true for a farm on which repairs and maintenance are not kept timely. In this case when the repairs do occur, they are likely to be at significantly higher cost. **Estimated impact $0.50/kg MS.**

- In regard to overheads the use of external professionals such as accountants, consultants etc., must always be carefully scrutinised. Their role is to teach principles in order to improve decision making, not make the decisions, a subtle but important difference. A great skill that highly profitable low-cost farmers have is to learn, master and manage many areas of their farming business. **Estimated impact on COP $0.15/kg MS.**

- In regard to the herd...It's critical to have the cow that suits the system, not the system that suits the cow!! If there are a significant number of carry over cows or if the average days in milk is higher than desirable, then there will be less milk for the same cost of feed. This is a reflection of both reproductive performance and level of replacements reared. **Estimated impact on COP $0.20/kg MS.**

- Finally, timing of activities such as weed spraying, crop sowing, fodder conservation etc., might have the same cost but very different outcomes in production.

When all of the above are considered, it is no surprise that COP can vary by $3.00/kg MS within a region where farms seem to be exposed to the same conditions.

Add to that the influence of the majority of dairy processors. In their "hunt" for milk and a focus on the short term they have disrupted the market and reduced the efficiency of the Australian Dairy Industry via such offerings as productivity incentives and temptations to produce "out of season" milk that can have major impacts on cost of production.

The lower cost, higher profit farm will have the right number of appropriate type of cows for the milking platform and facilities. There will be a seasonal pattern of milk supply with all activities being timely and a close focus on cost control. In particular, the operators will be acutely aware of the importance of marginal decision making in all aspects of expenditure.

The following table is an example of how cost of production can gradually change. It describes a farm situated in a high rainfall dryland area of Australia with low summer and winter pasture growth rates and suited to a single calving pattern. What happens when the level of operator decision making drops from optimum to verging on mediocre?

Table 1: One Farm Changing From Optimum Efficiency (All Scenarios at $5.50/kg MS)

Scenario	Return on Asset %	Profit $/kg MS	Cost of Production $/kg MS	% Imported Feed	Pasture Consumption T/cow	Labour efficiency Kg MS/ 50 hr labour unit
Optimum	10.5%	$1.65	$4.18	37.6%	3.7 T	67,250 (125 cows)
Split Calve	8.8%	$1.39	$4.43	37.6%	3.7 T	60,605 (113 cows)
Change to time of single calving March/April	7.5%	$1.17	$4.65	47.6%	3.2 T	64,491 (119 cows)
Overfeed supplements/ under use pasture	5.9%	$0.93	$4.89	51.5%	3.0 T	62,680 kg (117 cows)
Overfeed supplements/under use pasture/reduce labour efficiency	3.9%	$0.61	$5.21	51.5%	3.0 T	46,457 (87 cows)
Overhead haemorrhage, poor cost control, reduced labour eff., overfeed supplement, underuse pasture	1.3%	$0.20	$5.63	51.5%	3.0 T	46,457 (87 cows)

A farm that matches its production system to its internal constraints (soil type, topography, rainfall and facilities) and external operating environment (milk and supplement price volatility) and matches that with high quality decision making will help keep COP under control and reap the benefits through a healthy profit.

The above discussion stresses the fact that COP should be kept low, but are there situations where a high COP is not a matter for concern? There are two scenarios in which a COP may be high without it being a real worry:

- A dairy business with high levels of livestock sales due to large numbers of calves being reared and sold into a range of markets. COP is expressed per kg MS. In this case the costs associated with the livestock enterprise are included in COP, but the income is in livestock not milk solids. This means that COP/kg MS will calculate high when it's not a worry.

- A smaller farm of say 160 cows, with a couple working a collective high level of hours and employing no paid labour, might have a high COP due to the imputed labour value correctly apportioned to them. There may also be some duplication of labour (Do they work together sometimes when one person would be enough?). The imputed labour value does not have enough solids being produced to dilute the labour figure to achieve an acceptably low COP.

While Cost of Production may be dismissed as a theoretical figure it is a vitally important calculation for those farmers looking for that elusive profit. Analysing your own COP may provide some answers as to why that profit has been hard to achieve.

Now, to test your understanding of what I believe is a complex interaction of physical resources in a volatile environment (climate and economy)...

Consider the following 100ha milking platform dairy farm somewhere in dryland Australia with 100 ha support area only 6 km away.

Every dairy farmer has choices about the combination of resources. The table below provides a selection of choices and economic outcomes for this land resource.

Cow No.	Litres/cow	MS/cow	Farm Production Kg MS	$ EBIT/kg MS	Total EBIT $	Cost of Production $/kg MS
200	6,081	450	90,000 (1.2M L)	2.00	180,000	4.60
300	6,712	490	147,000 (2.0 M L)	1.60	235,200	5.00
400	7,123	530	212,000 (2.8 M L)	1.20	254,400	5.90

Think about the questions you would want to ask about each setting and interpret the table...

John Mulvany , OMJ Agricultural Consulting

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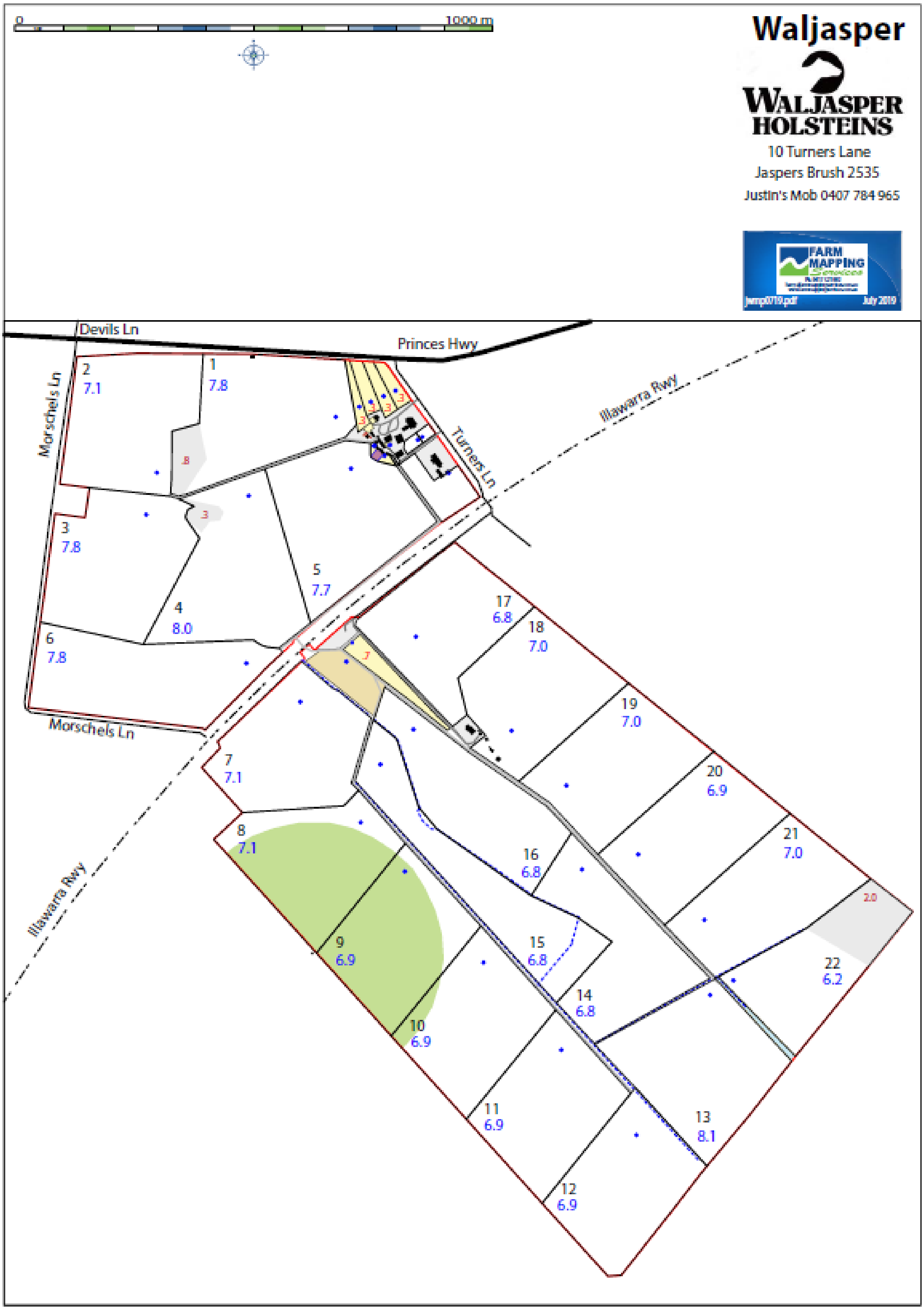
Milking Platform Farm Maps



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Justin's Mob 0407 784 965
FARM MAPPING Services
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Princes Hwy
Morschels Ln
Turners Ln
Illawarra Rwy
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