DairyBase By DairyNZ

Report Description Handbook

Updated March 2024

Report Description Handbook

Table of Contents

Physical Data Summary

The Physical Data Summary shows the basic physical data describing the farm business. This information underpins all DairyBase reports.

DairyBase by DairyNZ

Physical Data Summary

Training - Farm A
Dairy Season ended: 2020 **Printed:** 27 July 2021

This information was collected in the level-1 questionnaire. It is used to generate adjustments and KPI's in both Financial and Physical Detail reports. Please check that it is correct.

C01	**Dairy Co Supplied:**	Fonterra			
C02	**Production System:**	3 Feed imported to extend lactation 11-20%			
C03	**Business Type:**	Owner operator	C04	**Balance Month:**	May
C05	**Calving Season:**	Spring only	C06	**Milking Interval:**	Twice a day
C07	**Winter Milk:**	No	C08	**Organic:**	
C09	**Region:**	Lower North Island	C10	**District:**	Manawatu
C13	**% Milking Area Irrigated:**	Not Irrigated	C12	**Season's rainfall (mm):**	794 NIWA
C15	**Farm Dairy Type:**	R50	C11	**NIWA 10 Yr Av Rainfall (mm):**	903

	Stock	
C17	**Predominant dairy breed:**	Crossbred
C18	**Peak Cows Milked:**	760
C19	**Stocking rate (Cows/ha):**	3.0
C20	**Replacement Calves Reared:**	175

	Labour	
C22	**Full Time paid labour equivalents:**	2.5
C23	**Full Time unpaid labour equivalents:**	0.2
C24	**FTE unpaid management:**	0.7
C25	**Total FTEs:**	3.4
C26	**Milking Cups per FTE:**	14.7

	Land Area (ha)	
C27	**Total Dairying area:**	265.0
C28	**less Ungrazeable area:**	10.0
C29	**Effective Dairying area:**	255.0
C32	**Support block effective area:**	80.0
C30	**Defined Young Stock area:**	6.9
C33	**Non-dairy effective area:**	0.0

	Production	**Total**	**Per ha**	**Per cow**	**Composition**
C34	**Milk Litres:**	3,504,178	13,742	4,611	
C35	**Fat kg:**	164,882	647	217	4.7%
C36	**Protein kg:**	132,440	519	174	3.8%
C37a	**Financial year - Milksolids kg:**	297,322	1,166	391	8.5%
C37b	**Production year - Milksolids kg:**	297,322	1,166	391	

C40	**Number in Benchmark Group:**	155
C41	**Benchmark Group Selected by:**	Farm business type (1- Owner operator) | Island (North Island)

Data entered by: **Financial:** 0 **Extended Physical:** 0

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General Farm Data

C01 Dairy Co Supplied:

The name of the dairy company that milk is supplied to. Note: there could be more than one for an individual farm.

C02 Production System:

The type of production system as defined by, the amount of imported feed, and/or off farm dry cow grazing. Note: this is irrespective of young stock grazing.

System 1 *- All grass self-contained i.e., no feed imported*

No supplement fed to the herd except supplement harvested off the Effective Dairying area
No cows grazing off the Effective Dairying area

System 2 *- Feed imported either supplement or grazing off for dry cows*

Approx. 4-14% feed imported
Large variation in % as in high rainfall areas and cold climates such as Southland
Most of the cows wintered off

System 3 *- Feed imported to extend lactation (typically autumn feed) and for dry cows*

Approx. 10-20% of total feed is imported
Westland – feed to extend lactation may be imported in spring rather than autumn

System 4 *- Feed imported and used at both ends of lactation and for dry cows*

Approx. 20-30% of total feed is imported.

System 5 *- Imported feed used all year (for lactation and dry cows)*

At least 25% of total feed is imported.

Note: Farms feeding 1-2 kilos of meal or grain per day for most of season will best fit in System 3.

C03 Business Type:

Describes the ownership structure of the business:

1. **Owner operator**: owns (or leases from external party) both cows and land.
2. **Sharemilker '50-50'**: owns herd but not land. This includes sharemilkers with more than 1 contract i.e. may have a manager or contract milker on second job.
3. **Owner with '50-50' sharemilker**: owner with land but no cows i.e. employ a 50:50 sharemilker or equivalent
4. **Owner with variable order/contract milker**: Owner with contract or variable order sharemilker. Order/contract milker e.g. owner receives less than 100% of milk revenue and/or pays less than 100% of expenses.
5. **Variable order sharemilker**: Variable Order Sharemilker
6. **Contract Milker**: A contract milker, they typically don't own the herd or the land.
7. **Diverse:** Any other ownership type, typically a combination e.g. Owner-Operator on one farm and Sharemilking on another.

C04 Balance Month:

The closing month of the financial year e.g. 3 = 31 March, 5 = 31 May etc.

C05 Calving Season:

The calving season for the herd.

1. Spring only
2. Autumn only
3. Spring and Autumn
4. Other, including year-round and extended lactation.

C06 Milking Interval:

Describes milking frequency:

1. **Twice a day:** Twice a day milking for majority of milking season
2. **Once a day full season:** Once a day milking for majority of milking season
3. **Once a day (16-30 weeks):** OAD for between 16 and 30 weeks of milking season
4. **Other (3 times in 48 hours etc):** e.g. 3 times in 48 hours for majority of milking season

C07 Winter Milk:

Is the herd milked during the winter months of June and July? Yes or No.

C08 Organic:

Is the farm certified organic?

1. No
2. In Conversion
3. Fully Certified

C09 Region:

8 regions across the country:

1. Northland
2. Waikato
3. Bay of Plenty
4. Taranaki
5. Lower North Island
6. West Coast - Top of the South
7. Canterbury
8. Otago-Southland

Note: if farming across different regions, select the region that best represents the business.

C10 District:

This is the Government TLA (Territorial Local Authority) district as shown on the rates notice e.g. Rodney, Matamata-Piako, Selwyn, etc…

There are 73 districts in total.

Note: if farming across different districts this will be the district that best represents the business**.**

C11 NIWA 10 Yr Av Rainfall (mm):

A 10-year rolling annual average rainfall for the district (C10) based on NIWA data. The data represents the 1 June to 31 May period.

C12 Season's rainfall (mm):

Rainfall recorded on the farm for the current season.

This can be entered for an individual farm where it is recorded regularly otherwise the current full season's total rainfall supplied by NIWA will be displayed if it is available.

NIWA's previous season's rainfall data will be available in July.

C13 % Effective Dairying area Irrigated:

What proportion of the Effective Dairying area (C29) is irrigated?

1. No irrigation
2. Some irrigation – but less than 30% of the Effective Dairying area is irrigated
3. More than 30% of the Effective Dairying area is irrigated.

C14

Not currently used

C15 Farm Dairy Type:

The farm dairy type followed by the number of sets of cups. E.g. H18

H = Herringbone
R = Rotary
O = Other

This information is collected as part of a Physical Detail analysis and will not appear if only Level One Physical and Financial information has been entered.

Stock

C17 Predominant Dairy Breed:

The main (predominant) breed of the herd.

1. Friesian
2. Crossbred *(fewer than 70% of 1 specific breed)*
3. Jersey
4. Ayrshire
5. Other dairy *(e.g. Brown Swiss, Guernsey, Milking Shorthorn etc.)*

C18 Peak Cows Milked:

The highest number of cows milked at any time during the season.

C19 Stocking Rate (Cows/ha):

C18 / C29

The number of Peak Cows Milked (C18) divided by Effective Dairying area (C29)

C20 Replacement Calves Reared:

The total number of heifer calves reared as herd replacements for the year.

This information is collected as part of a Physical Detail analysis and will not appear if only Level One Physical and Financial information has been entered.

Labour

C22 Full Time paid labour Equivalents:

1 FTE = 2,400 hours of work a year.

All paid farm employees' hours as a proportion of the working year (2,400 hours).

Includes labour for calf rearing, relief milking and casual workers as well as paid farm managers.

Excludes any specific contract work such as cultivation or fencing etc which is attributed to another category.

This also includes labour paid under a share of milk cheque, and so not included in wages (i.e. Sharemilkers and their staff)

C23 Full Time unpaid labour Equivalents:

1 FTE = 2,400 hours of work a year.

All unpaid (usually family labour) farm labour hours as a proportion of the working year (2,400 hours).

Include unpaid labour for calf rearing and relief milking.

A maximum of 0.5 FTEs will be added to unpaid labour from unpaid management due to different treatments to calculator labour adjustment. See C24 below.

C24 FTE unpaid Management:

1 FTE = 2,400 hours of work a year.

The Full Time Equivalent (FTE) of all unpaid (usually family) farm management.

The number of FTEs displayed for unpaid management could be up to a maximum of 1.0. Management FTEs over 1.0 will be added to unpaid labour (C23) up to a maximum of 0.5 FTEs.

Note: it is possible to have less than 1.0 FTE unpaid management.

C25 Total FTEs:

C22+ C23 + C24

Total paid and unpaid labour hours as a proportion of the working year (2,400 hours).

C26 Milking Cups per FTE:

C15 / C25

Total number of milking cups in all sheds divided by Total FTEs (C25).

This information is collected as part of a Physical Detail analysis and will not appear if only Level One Physical and Financial information has been entered.

Land Area (ha)

C27 Total Dairy area:

Total surveyed dairy farm area (freehold and leasehold) excluding support block.

C28 Ungrazable area:

The area on the Total Farm (C27) that cannot be grazed.

This includes waste areas, waterways, races, fences, drains, buildings, and forestry.

C29 Effective Dairy area:

C27 – C28

Total Dairy area (C27) less Ungrazable area (C28).
Essentially this is the area available for grazing and/or cropping, excluding support block.

C30 Defined Young Stock area:

The portion of the Effective Dairy area (C29) assessed as being used by young stock over 3 months of age e.g. based on a 25% replacement rate.
For young stock raised from 3 to 10 months; 4% of Effective area
For young stock raised from 11 to 22 months, 11% of Effective area
For young stock raised from 3 to 22 months, 15% of Effective area
This information is collected as part of a Physical Detail analysis and will not appear if only Level One Physical and Financial information has been entered.

C32 Support Block effective area:

Support Block effective area (freehold and leasehold) used to support the Effective Dairying area.
Note: does not include the area used for significant non-dairy operations.

C33 Non-dairy effective area:

Any effective area (freehold and leasehold) not used for the dairy cows within the business.
Includes: Effective area used for grazing non-dairying livestock, grazing dairy stock on a contract basis, forestry, horticulture, viticulture, and cash cropping. Small non-dairy operations will be included in dairy where enterprise accounting is not used.

Production

This block is divided into 4 groups of data

- Total kg -Total for the farm
- Per ha -Total divided by Effective Dairying area (C29)
- Per cow - Total divided by Peak Cows Milked (C18)
- Composition - Kg of milksolids (fat, protein, total MS) divided by Milk Litres.

This shows the milk composition proportion per litre of milk supplied

C34 Milk litres:

Total volume of milk supplied to dairy company.

C35 Fat Kg:

Total milk fat supplied to dairy company.

C36 Protein Kg:

Total milk protein supplied to dairy company

C37a Financial year - Milksolids Kg:

Total milksolids supplied to dairy company for the financial reporting period.
This figure is used to calculate per Kg Milksolid KPIs in all financial reports.

C37b Production year - Milksolids Kg:

Total milksolids supplied to dairy company for the production season May-June.
This figure is used in the Physical Detail A report.

Benchmarks

C40 Number in Benchmark Group:
The number of farms represented in the selected benchmark group.
Note: the minimum number is 20 farms for a 'Farm Average' benchmark type but will be 1 for 'Modelled Data' and 'Authorised Individual Farm' benchmarks.

C41 Benchmark Group Selected by:
The parameters used to select the benchmark group. Typically this may include a combination of the following:

Business Type
Production System
Region and/or District

Key Performance Indicators

Page Layout

The 'Key Performance Indicators 'page is a summary page, designed to give an overview of the farm business. It is divided into 4 distinct groups of data and shows a time series over 3 years.

1. Farm Physical KPI's from Page 1
2. Profitability measures
3. Liquidity or cash position (not comparable against other farms)
4. Total wealth (not comparable against other farms)

Note: KPI stands for Key Performance Indicators. This report will only be available for a full financial analysis, not for a Profitability analysis.

Key Performance Indicators

DairyBase by DairyNZ

Training - Farm A

Dairy Season ended: 2020 **Printed:** 27 July 2021

Benchmark Group Selected by: Farm business type (1- Owner operator) | Island (North Island)

	Number in Benchmark Group:	155		161		156	
	FARM PHYSICAL KPI's	2019/2020		2018/2019		2017/2018	
		Farm	Benchmark	Farm	Benchmark	Farm	Benchmark
K01	Cows/ha	3.0	2.8	3.0	2.7	3.0	2.8
K02	Kg Milksolids/ha	1,166	1,078	1,150	1,070	1,143	1,082
K03	Kg Milksolids/cow	391	389	387	391	386	383
K04	Cows/FTE	224	140	223	135	216	135
K05	Kg MS/FTE	87,448	54,536	86,264	52,691	83,265	51,574

	PROFITABILITY	2019/2020		2018/2019		2017/2018	
	Dairy	Farm	Benchmark	Farm	Benchmark	Farm	Benchmark
K06	Gross Farm Revenue/ha	8,735	8,337	8,204	7,562	8,271	7,949
K07	Operating Expenses/ha	4,965	5,794	5,010	5,645	4,689	5,712
K08	Operating Profit (EFS)/ha	3,770	2,543	3,194	1,917	3,582	2,237
K09	Gross Farm Revenue/kg MS	7.49	7.73	7.13	7.06	7.24	7.35
K10	Operating Expenses/kg MS	4.26	5.38	4.36	5.27	4.10	5.28
K11	Operating Profit (EFS)/kg MS	3.23	2.36	2.78	1.79	3.13	2.07
K12	FWE/kg MS	3.09	4.40	3.17	4.37	3.51	4.38
K13	Operating Profit Margin %	43.2%	30.5%	38.9%	25.4%	43.3%	28.1%
K14	Asset Turnover %	18.6%	16.6%	17.1%	15.5%	16.8%	14.6%
K15	Operating Return on Dairy Assets %	8.7%	4.9%	7.3%	3.7%	7.2%	4.0%
	Total Business						
K16	Interest & Rent/Total Revenue	6.8%	15.2%	7.5%	17.3%	15.6%	17.5%
K17	Interest & Rent/kg MS	0.51	1.22	0.54	1.28	1.15	1.33
K18	Total Return on Assets %	3.8%	-0.3%	3.1%	-1.0%	2.2%	0.0%
K19	Return on Equity % (excluding change in capital value)	10.3%	5.6%	9.0%	2.9%	7.1%	3.2%
K20	Total Return on Equity %	3.6%	-4.5%	2.9%	-5.9%	-0.2%	-3.7%

	LIQUIDITY	2019/2020	2018/2019	2017/2018
K21	Net Cash Income	2,170,644	2,073,488	2,139,512
K22	Farm Working Expenses	918,573	930,914	1,021,630
K23	Cash Operating Surplus	1,252,071	1,142,574	1,117,882
K24	Discretionary Cash	904,214	882,818	620,107
K25	Cash Surplus/Deficit	-47,275	157,200	-41,894

	TOTAL WEALTH	2019/2020	2018/2019	2017/2018
K26	Closing Dairy Assets $	12,103,735	11,985,016	12,228,687
K27	Closing Total Assets $	12,443,735	12,225,016	12,468,687
K28	Closing Total Liabilities $	3,674,833	3,628,000	4,140,200
K29	Closing Total Equity $	8,768,902	8,597,016	8,328,487
K30	Growth in Equity $	171,886	268,529	-268,519
K31	Growth from Profit	551,704	570,471	200,228
K32	Growth from Capital	-379,818	-301,942	-468,747

		2019/2020		2018/2019		2017/2018	
		Farm	Benchmark	Farm	Benchmark	Farm	Benchmark
K33	Growth in Equity %	2.0%	-3.3%	3.2%	-8.0%	-3.1%	-3.4%
K34	Debt to Assets %	29.5%	51.6%	29.7%	51.1%	33.2%	47.6%
K35	Opening Liabilities/kg MS	12.20	25.63	14.12	23.55	14.35	25.41
K36	Closing Liabilities/kg MS	12.36	24.95	12.37	25.07	14.21	26.54

Comments: Assets include Land and Building values calculated using revalued capital values.

Farm Physical KPIs

K01 Cows/ha:

C18 / C29

Peak Cows Milked (C18) divided by Effective Dairying area (C29).

K02 Kg Milksolids/ha:

C37a / C29

Milksolids Kg (C37a) divided by Effective Dairying area (C29)

K03 Kg Milksolids/cow:

C37a / C18

Milksolids Kg (C37a) divided by Peak Cows Milked (C18)

K04 Cows/FTE:

C18 / C25

Peak Cows Milked (C18) divided by Total FTEs (C25)

K05 KgMS/FTE:

C37a / C25

Total Milksolids Kg produced (C37a) divided by Total FTEs (C25).

Profitability

1 Dairy

K06 Gross Farm Revenue/ha:

E22 / C29

Dairy Gross Farm Revenue (GFR) (E22) - cash and non-cash from net milk, net livestock (adjusted) and other dairy farm related revenue divided by Effective Dairying area (C29).

K07 Operating Expenses/ha:

E29 / C29

Dairy Operating Expenses (E29) - cash and non-cash divided by Effective Dairying area (C29).

K08 Operating Profit (EFS)/ha:

K06 –K07

Dairy Gross Farm Revenue per ha (K06) less Total Dairy Operating Expenses per ha (K07).

K09 Gross Farm Revenue/KgMS:

E22 / C37a

Dairy GFR (E22) divided by Milksolids Kg (C37a).

K10 Operating Expenses/KgMS:

E29 / C37a

Dairy Operating Expenses (E29) - cash and non-cash divided by Milksolids Kg (C37a).

K11 Operating Profit (EFS)/kg MS:

K09 – K10

Dairy Gross Farm Revenue per KgMS (K09) less Total Dairy Operating Expenses per KgMS (K10).

K12 FWE/KgMS:

K22 / C37a

Farm Working Expenses (K22) divided by Milksolids Kg (C37a).

K13 Operating Profit Margin %:

*E30 / E22 * 100*

Dairy Operating Profit (E30) as a percentage of Dairy Gross Farm Revenue (E22).
This measures how well a farm generates profit from its revenue.

K14 Asset Turnover %:

*E22 / (K27–Y1) * 100*

Dairy Gross Farm Revenue (E22) as a percentage of Opening Dairy Assets.
Opening assets are shown on the report as Closing assets (K27) from the previous year (Y-1).
The rate of asset turnover measures how well a farm generates dairy revenue from its assets.

K15 Operating Return on Dairy Assets %:

*(E30 + E16 – E31) / (K26–Y1) * 100*

(Dairy Operating Profit (E30) plus owned adjustment (E16) less rent (E31)) as a percentage of Opening Dairy Assets.
Opening Dairy Assets are Closing Dairy Assets (K26) from the previous year (Y-1).
The RoDA measures the profit generated from the dairy assets employed.

2 Total Business

K16 Interest and Rent/Total Revenue:

*(E32 + E31) / (F08 + E36) * 100*

Interest (E32) and Rent (excluding Support block rent) (E32) paid as a percentage of Total Revenue: Total GFR + Net off-farm income.

K17 Interest and Rent/KgMS:

(E31 + E32) / C37a

Interest (E32) and Rent (excluding Support block lease) (E31) paid divided by Milksolids Kg (C37a).

K18 Total Return on Assets %:

*(F50 + E16 – E31 + (Change in Capital Value)) /K27–Y1) * 100*

Total Operating Profit (F50) plus owned adjustment (E16) less rent (E31) plus change in capital value divided by Opening Total Assets.
The TRoA is the profit generated by the assets employed plus capital gains and losses.
It measures the overall financial performance of the business.

K19 Return on Equity % (excluding change in capital value):

*(F50 + E16+ E47 – E31 – E32) / (K29–Y1) * 100*

(Total Operating Profit (F50) plus owned adjustment (E16) plus net off-farm income (E47) less rent (E31) less interest (E32)) as a percentage of Opening Equity.

Opening Equity is Closing Equity (K29) from the previous year (Y-1).

The RoE measures the return on the funds of the owner but does not include the change in capital value.

K20 Total Return on Equity %:

*(F50 + E16 +E47 – E31 –E32 +Change in Capital Value) / (K29–Y1) * 100*

(Total Operating Profit (F50) plus owned adjustment (E16) plus net off- farm income (E47) less rent (E31) less interest (E32) plus change in capital value as a percentage of Opening Equity.

Opening Equity is Closing Equity (K29) from the previous year (Y-1).

The TRoE measures the return on the funds of the owner including the change in capital value.

Liquidity

K21 Net Cash Income:

Same figure as E04

Net Cash income from milk sales; net (sales-purchases) dairy livestock sales and other dairy farm related revenue.

This is net cash income from dairy operations only and does not include the value of the change in dairy livestock numbers.

K22 Farm Working Expenses:

Same figure as E11

Total dairy farm cash expenditure, including labour, stock, feed, other working expenses, and overheads.

K23 Cash Operating Surplus:

K21 – K22

Net Cash Income (K21) less Farm Working Expenses (K22).

It is the cash available from dairying after paying for farm working expenses.

K24 Discretionary Cash:

Same figure as E36

Cash Operating Surplus (K23) less rent (E31), interest (E32) and tax (E33) plus net non-dairy cash income (E34) and net off-farm income (E35).

This is the cash available from dairy, non-dairy and off-farm operations to meet capital purchases, debt repayments, drawings, and extraordinary expenses (discretionary items).

K25 Cash Surplus/Deficit:

Same figure as E43

Total discretionary cash (K24) plus introduced funds (E42) less net Capital Transactions (E37), less net debt (E38), less net drawings (E39, less extraordinary expenses (E40) plus income equalisation (E41).

This is cash surplus from dairy, non-dairy and off-farm operations over the year.

Total Wealth

K26 Closing Dairy Assets $:

The value of all dairy related assets at close of the financial year.

- Closing land and buildings (includes all improvements used for dairying e.g. fences, races, dairy shed and the house value) valued at current market value by applying an adjustment based on Quotable Value sales to the latest Rateable Capital Value. Alternatively an assessed market value can be entered for open and close.
- plus plant, machinery, and vehicles at book value,
- plus dairy livestock valued at NAMV,
- plus any dairy related farm investments e.g. dairy company shares and shares in dairying related companies e.g. fertiliser, meat, animal breeding and trading companies) at market value.

Note: Closing Dairy Assets does not include current assets e.g. bank, savings accounts, sundry debtors.

K27 Closing Total Assets $:

The total value of all business assets at close

- Closing Dairy Assets (K26)
- plus any non-dairy farmland and buildings
- plus the book value of any plant, machinery and vehicles not included in Dairy Assets,
- plus all non-dairy livestock valued at NAMV,
- plus the market value of any off-farm assets and investments e.g. off-farm houses, commercial buildings, boats, aeroplanes

Note: Closing Total Assets does not include current assets e.g. bank, savings accounts, sundry debtors.

K28 Closing Total Liabilities $:

Closing long-term liabilities + (current liabilities – current assets).

- Debt to family is included in liabilities if there is an expectation that it will be repaid.
- A long-term liability is one where the term for repayment is longer than 1 year.
- This also includes hire purchases for more than 1 year.

K29 Closing Total Equity $:

K27 – K28

Closing Assets (K27) – Closing Liabilities (K28).

This is sometimes referred to as Net Worth as it is the value of the owner's share of the assets.

K30 Growth in Equity $:

K29 – K29-Y1

Closing Equity – Opening Equity

- The change in owner's equity during the year
- Opening Equity is shown on the reports as Closing Equity (K29) from the previous year (Y-1).

K31 Growth from Profit:

Same figure as E54

The portion of the change in equity that has come from trading in the season, as opposed to the portion from capital appreciation.

K32 Growth from Capital:

K30 – K31

Growth in Equity (K30) less Growth from Profit (K31).
It includes capital gain and introduced funds.

K33 Growth in Equity %:

*K30 / K29-Y1 * 100*

(Closing Equity – Opening Equity) as a percentage of Opening Equity.
Note: Opening Equity is shown on the report as Closing Equity (K29) from the previous year (Y-1).

K34 Debt to Assets %:

*K28 / K27 * 100*

Closing Total Liabilities (K28) as a percentage of Closing Total Assets (K27).
This measures the proportion of the business value that is borrowed by the owners.

K35 Opening Liabilities/KgMS:

K28-Y1 / C37a

Opening Total Liabilities (K28-Y1) divided by Milksolids Kg (C37a).
Note: Opening Total Liabilities is shown on the report as Closing Total Liabilities (K28) from the previous year (Y-1)

K36 Closing Liabilities/KgMS:

K28-Y1 / C37a

Closing Total Liabilities (K28) divided by Milksolids Kg (C37a).

Cash Flow and Profitability Calculation

Page Layout

The 'Cash Flow and Profitability' page is designed to show how the Operating Profit (OP) is calculated, the flow of funds to cash surplus/deficit and the calculations of business profit before tax and equity growth from profit for the season ended YYYY as shown at the top of the report page.
There are 3 major blocks of data.

1. Cash revenue and expenditure
2. Non-cash adjustments for OP.
3. Total (cash and non-cash) revenue and expenditure

All figures shown are in total dollars with the exception of the first column on the cash side which is $ / Milksolids Kg (C37).

This diagram shows how the operating profit (E30) is calculated from the cash surplus.

Cash Flow and Profitability

DairyBase by DairyNZ

Training - Farm A
Dairy Season ended: 2020 **Printed:** 27 July 2021

Number in Benchmark Group: 155
Benchmark Group Selected by: Farm business type (1- Owner operator) | Island (North Island)

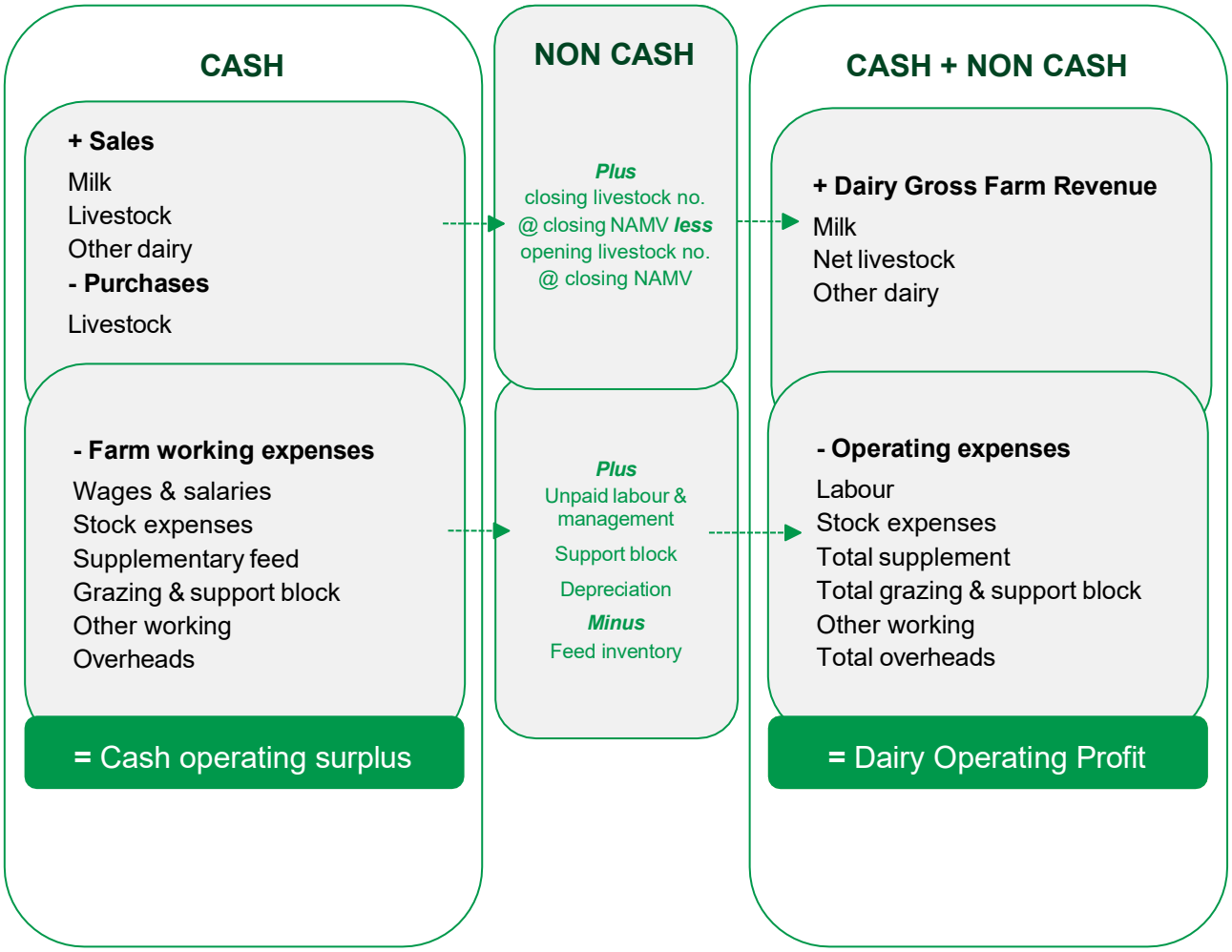
	CASH	$/KG MS	$		NON CASH ADJUSTMENTS	$		CASH + NON CASH	$
	DAIRY SALES							**DAIRY GFR**	
E01	Net Milk	6.84	2,034,059				E19	Net Milk	2,034,059
E02	Net Livestock	0.43	127,800	E13	+ Value of Change in Dairy Livestock	56,660	E20	Net Livestock	184,460
E03	Other Dairy	0.03	8,785				E21	Other Dairy	8,785
E04	**NET CASH INCOME**	7.30	2,170,644				E22	**DAIRY GFR**	2,227,304

	CASH FWE	$/Kg MS	$		NON CASH ADJUSTMENTS	$		OPERATING EXPENSES	$
E05	Wages	0.59	176,300	E14	+ Labour Adj	72,267	E23	Labour Expenses	248,567
E06	Stock Expenses	0.64	189,481				E24	Stock Expenses	189,481
E07	Supplementary Feed	0.82	243,120	E15	- Feed Inventory Adj	490	E25	Total Supplement Expenses	242,630
E08	Grazing and Support block	0.11	33,000	E16	+ Owned Supp block Adj	78,300	E26	Total Grazing and Support block	111,300
E09	Other Working Expenses	0.68	201,253				E27	Other Working Expenses	201,253
E10	Overheads	0.25	75,419	E17	+ Depreciation	197,421	E28	Total Overheads	272,840
E11	**FARM WORKING EXPENSES**	3.09	918,573				E29	**OPERATING EXPENSES**	1,266,071
E12	**CASH OPERATING SURPLUS**	4.21	1,252,071	E18	**NET ADJUSTMENTS**	-290,838	E30	**DAIRY OPERATING PROFIT (EFS)**	961,233

	TOTAL BUSINESS		
E31	- Rent (excl run-off)	0.00	0
E32	- Interest	0.51	151,113
E33	- Tax	0.66	196,744
E34	+ Net non Dairy Cash Income	0.00	0
E35	+ Net off-farm income	0.00	0
E36	**DISCRETIONARY CASH**	3.04	904,214
	Applied to:		
E37	- Net Capital Transactions	2.48	738,808
E38	- Net Debt	0.00	442
E39	- Net Drawings	0.71	212,239
E40	- Extraordinary Expenses	0.00	0
E41	+ Income Equalisation	0.00	0
E42	+ Introduced Funds	0.00	0
E43	**CASH SURPLUS/DEFICIT**	-0.16	-47,275

	TOTAL BUSINESS	
E44	+ Labour Adjustment	72,267
E45	+ Owned Run Off Adjustment	78,300
E46	+ Non-Dairy Operating Profit	0
E47	+ Net Off Farm Income	0
E48	- Extraordinary Expenses	0
E49	- Rent (excl run-off)	0
E50	- Interest	151,113
E51	**Business Profit Before Tax**	960,687
E52	- Drawings	212,239
E53	- Tax	196,744
E54	**EQUITY GROWTH FROM PROFIT**	551,704

Comments: 0


CASH
+ Sales
Milk
Livestock
Other dairy
- Purchases
Livestock
- Farm working expenses
Wages & salaries
Stock expenses
Supplementary feed
Grazing & support block
Other working
Overheads
= Cash operating surplus
NON CASH
Plus
closing livestock no.
@ closing NAMV less
opening livestock no.
@ closing NAMV
Plus
Unpaid labour & management
Support block
Depreciation
Minus
Feed inventory
CASH + NON CASH
+ Dairy Gross Farm Revenue
Milk
Net livestock
Other dairy
- Operating expenses
Labour
Stock expenses
Total supplement
Total grazing & support block
Other working
Total overheads
= Dairy Operating Profit

Cash

1 Net Cash Income

E01 Net Milk:

Gross milk revenue for the financial period less any DairyNZ industry levies and net of any grades etc. This includes colostrum and other specialty milks.
Also includes any winter milk payments, deferred payments and any insurance claims for milk lost.
Same figure as F01

E02 Net Livestock:

Total revenue from dairy livestock sold (through the works, sale yards, and private or for pet food) less cost of transport and dairy livestock purchases.
Includes bobby calf sales and slink skin sales.
Same figure as F02

E03 Other Dairy:

Dairy farm revenue, other than from milk and livestock sales.
This might include items such as:

- rebates if they cannot be netted off a specific expenditure category (e.g. trading company rebates) rent for farm houses/cottages and other revenue.
- Revenue from lease land is included if there is no lease expenditure to offset.
- Also includes revenue from other use of dairy farm assets e.g. small amounts of contracting and prize money for dairy livestock shown.

Same figure as F04

E04 Net Cash Income:

E01 + E02 + E03
Net Cash income from milk sales, dairy livestock and miscellaneous dairy farm related revenue.
Note: excludes the value of the change in dairy livestock numbers.

2 Farm Working Expenses (FWE)

E05 Wages:

Wages and salaries paid to farm employees.
Includes labour for calf rearing, relief milking, casual workers, rations and is less wage subsidies.
Excludes any salaries or directors fees paid to the farm family and any payments made to children from the business (these are added to drawings) and any specific contract work such as cultivation or fencing etc that can be added to the specific item.
Same figure as F09

E06 Stock Expenses:

Total expenditure relating to stock (not sales or purchases or feed).
It includes expenditure on animal health, breeding and herd testing (net of SPS rebates), farm dairy and farm electricity less irrigation electricity.
Same figure as F17

E07 Supplementary Feed

F18 + F20

Total cash expenditure relating to feed purchased, crops and supplements made and calf rearing.

The revenue from any surplus supplements sold is netted off the expenditure for crops and supplements made.

Note: this item excludes the change in feed inventory value.

E08 Grazing and Support Block

F22 + F23 + F24

Total cash expenditure relating to stock grazed off farm and rent paid for the lease of land.

Any revenue received for grazing or leases is netted off expenses.

Note: it excludes any adjustment for the assessed cost of owning land.

E09 Other Working Expenses

This is the sum of fertiliser, nitrogen, irrigation, regrassing, weed and pest, vehicles, fuel, R&M, and freight and general working expenditure.

Same figure as F38

E10 Overheads

This is the sum of all cash overhead expenses including administration, insurance, ACC self employed levy and rates.

E11 Farm Working Expenses

Sum E05 to E10

Total dairy farm cash expenditure, including labour, stock, feed, other working expenses and overheads.

3 Cash Operating Surplus

E12 Cash Operating Surplus

E04 – E11

Net Cash Income (E04) less Farm Working Expenses (E11).

It is the cash available after paying for farm working expenses.

Non Cash Adjustments

E13 Value of Change in Dairy livestock Numbers:

This is the value of the change in livestock numbers for the year at closing NAMV (National Average Market Value).

I.e. closing numbers of dairy livestock less opening numbers of dairy livestock valued at closing NAMV values.

Same figure as F03

E14 Labour Adjustment

F10 + F11

The value of unpaid family labour (F10) plus unpaid family management (F11).

Refer to F10 and F11 for the labour adjustment calculations.

E15 Feed Inventory Adjustment

(Closing Supplement tonnes DM – Opening Supplement tonnes DM) x $(estimated market value)

Closing supplementary feed (DM tonnes) less Opening supplementary feed (DM tonnes) valued at Kg DM.

A financial adjustment for the change in supplementary feed held on hand at the start of each season.

Refer to DairyBase website for latest values.

Same figure as F19

E16 Owned Support Block Adjustment

*Dairy owned effective hectares (C32) * rental value/ha*

If a farm business owns a support block an Owned Support Block adjustment is made to reflect the cost of owning this land so that comparisons can be made with farms which may lease a support block or pay for grazing.

If a value has been specified for the market rental then this value will be used instead.

This per hectare value is assessed annually.

Refer to DairyBase website for latest values.

Same figure as F25

E17 Depreciation

Total farm portion of depreciation on all dairy farm assets (except livestock), including depreciation recovered and loss on sale of assets i.e. buildings, improvements, plant and machinery, vehicles.

Excludes depreciation on non-farm assets, these are entered in Non-Dairy operating Expenses.

Same figure as F43

E18 Net Adjustments

E14 - E15 + E16 + E17 – E13

The net sum of all non-cash adjustments including, labour, feed inventory, owned support block and depreciation less the change in dairy livestock values.

Cash and Non Cash

1 Dairy GFR

E19 Net Milk:

Same figure as E01 and F01

E20 Net Livestock (adjusted):

E02 + E13

Same figure as (F02 + F03)

E21 Other Dairy:

Same figure as E03 and F04

E22 Dairy GFR:

E19 + E20 + E21

Dairy farm revenue from milk, livestock (including value of change in livestock numbers) and miscellaneous dairy farm related revenue.

Same figure as F05

2 Operating Expenses

E23 Labour Expenses

E05 + E14

Total cost of labour inputs on the farm.
It includes wages paid, employee ACC levy, plus adjustments for the value of unpaid family labour and unpaid family management.
Same figure as F12

E24 Stock Expenses

Total expenditure relating to stock (exclude stock sales/purchases or supplementary feed). It includes expenditure on animal health, breeding and herd testing, farm dairy and farm electricity less irrigation electricity.
Same figure as E06 and F17

E25 Total Supplement Expenses

E07 - E15

Total expenditure relating to feed purchased, crops and supplements made and calf rearing. It includes adjustments for supplements sold and the value of change in feed inventory.
Same figure as F21

E26 Total Grazing and Support Block

E08 + E16

Total expenditure relating to stock grazed off farm, rent paid for the lease of land and an adjustment for the assessed cost of owning land.
Same figure as F26

E27 Other Working Expenses

This is the sum of fertiliser, nitrogen, irrigation, regrassing, weed and pest, vehicles, fuel, R&M, and freight and general working expenditure.
Same figure as E09 and F38

E28 Total Overheads

E10 + E17

This is the sum of all overhead expenses including administration, insurance, ACC self employed levy, rates and depreciation.
Same figure as F44

E29 Operating Expenses

Sum E23 to E28

Total dairy farm (cash and non-cash) expenditure, including labour, stock, feed, other working expenses and overheads.
Same figure as F45

3 Dairy Operating Profit

E30 Dairy Operating Profit (EFS)

E22 – E29

Dairy GFR (E22) less Total Dairy Operating Expenses (E29).
Dairy Operating Profit is a measure of dairy farm profitability.
The calculation is the dairy operating return after an allowance for the value of change in dairy livestock numbers, non-paid labour and management, supplementary feed inventory change, owned support block adjustment and depreciation.

Same figure as F48

Total Business (Cash)

Discretionary Cash

E31 Rent (excl run-off)

Rent or lease paid for milking land, buildings, vehicles and plant, and livestock (including bailment rent).
Note: Rent paid for the lease of support block land is excluded (refer to E08 and E26 Grazing and Support Block).
Short term (less than 1 month) plant rent/hire is included in the expense account associated with its use.

E32 Interest

Total interest charges including mortgages, overdrafts and hire purchases to third parties.
Includes interest payable to banks, IRD and stock firms.
Excludes interest on internal loans between different entities on a farm.

E33 Tax

Includes all actual net tax paid during the year i.e. provisional and terminal tax.
Note: any tax refunds are netted off.

E34 Net Non-Dairy Cash Income

Total cash income generated from farm assets that are not dairy related less total non-dairy farm expenses.
These might include revenue from wool, velvet, firewood, metal royalties, orchard products, viticulture, or forestry harvest.
Includes large one off revenue items such as one-off forestry harvests.

E35Net Off-farm Cash Income

Off-farm cash income less off-farm cash expenses.
This might include interest and dividends received from off-farm assets and rental income from off-farm properties.

E36 Discretionary Cash

E12 - E31 - E32 - E33 + E34 + E35
Cash Operating Surplus (E12) less rent (E31), interest (E32) and tax (E33) plus net non-dairy cash income (E34),) and net off-farm income (E35).
This represents the cash available to meet capital purchases, debt repayments, drawings, and extraordinary expenses (discretionary items).

Cash Surplus/Deficit

E37 Net Capital Transactions
Total funds applied to the purchase of fixed assets less the income from the sale of fixed assets plus the purchases of investments less the sale of investments.

E38 Net Debt
The difference between term liabilities at close less term liabilities at open. i.e. it is the debt repaid less the increase in borrowings.

E39 Net Drawings
This includes all owners' household cash expenditure e.g. living expenses, overseas holidays, purchases for recreational use, donations, life insurance and private portion of farm cash expenditure.
Also includes wages/salaries paid to children.
Does not include private portion of farm depreciation as it is non cash.
Any off-farm wages and salaries earned are netted off drawings.

E40 Extraordinary Expenses
Large one off expenditure items (such as fertiliser and R&M) caused by severe weather events resulting in civil defence status.
Any payments received related to extraordinary events will be netted off.
Payments may be received in a different season than the event occurred.

E41 Income Equalisation
The net income equalisation payments made during the year, i.e. income equalisation balance at close less the income equalisation balance at open.

E42 Introduced Funds
An injection of cash from sources that are not required to be paid back e.g. inheritance or any other non-taxable off-farm income.
This is net of any capital withdrawn for investments outside of the business.

E43 Cash Surplus/Deficit
E37 - E38- E39 - E40 + E41 + E42
Total Discretionary cash (E36) plus income equalisation (E41) plus introduced funds (E42) less capital transactions (E37), net debt (E38), net drawings (E39) and extraordinary expenses (E40).
The cash surplus from farming operations over the year.

Total Business (Non-Cash)

Equity Growth from Profit

E44 Labour Adjustment
Same figure as E14

E45 Owned Support Block Adjustment
Same figure as E16

E46 Non-dairy Operating Profit
F06 + F07 – F46
Same figure as F49

E47 Net Off-farm Income
E35 (Cash off-farm income) + Net Non-Cash off-farm income

E48 Extraordinary Expenses
Same figure as E40

E49 Rent (excl) Support Block
Same figure as E31

E50 Interest
Same figure as E32

E51 Business Profit before Tax
E30 + E44 + E45 + E46 + E47 - E48 - E49 – E50
The total profit generated by all assets owned.
Business profit before tax must meet personal living expenses, taxation commitments, capital repayments and the purchase of capital items, such as plant and machinery.

E52 Drawings
Same figure as E39

E53 Tax
Same figure as E33

E54 Equity Growth from Profit
E51 – E52 – E53
Business profit before tax (E51) less drawings (E52) and tax (E53)
This is the growth in equity attributed to farming operation as opposed to capital gain or introduced capital (funds).
Same figure as K31

Financial Detail

Page Layout

The 'Financial Detail' page is designed to show income and expenditure for the dairy season ended YYYY as shown at the top of the report page. The first column shows total $ and the second column shows the percentage of Gross Farm Revenue (%GFR) for each attribute.

The income and expenditure items are also displayed as :

1. $ per KgMS ($/C37)
2. $ per Ha ($/C29)
3. $ per Cow ($/C18)

This page can also be printed showing any one of the 3 categories above or total $ for a 3 year period.

DairyBase by DairyNZ

Financial Detail

Training - Farm A
Dairy Season ended: 2020 **Printed:** 27 July 2021

Number in Benchmark Group: 155
Benchmark Group Selected by: Farm business type (1- Owner operator) | Island (North Island)

	GROSS FARM REVENUE (GFR)	Total $		$ Per kg MS		$ Per Ha		$ Per Cow	
		Farm	% of GFR	Farm	Benchmark	Farm	Benchmark	Farm	Benchmark
F01	Net Milk Sales	2,034,059	91.3%	6.84	7.12	7,977	7,677	2,676	2,773
F02	Net Dairy Livestock Sales	127,800	5.7%	0.43	0.53	501	576	168	208
F03	Value of Change in Dairy Livestock	56,660	2.5%	0.19	0.03	222	29	75	10
F04	Other Dairy Revenue	8,785	0.4%	0.03	0.05	34	56	12	20
F05	**Dairy Gross Farm Revenue**	2,227,304	100.0%	7.49	7.73	8,735	8,337	2,931	3,012
F06	Non-Dairy Cash Income	0	0.0%	0.00	0.16	0	175	0	63
F07	Value of Change in Non-dairy Livestock	0	0.0%	0.00	0.00	0	5	0	2
F08	**Total Gross Farm Revenue**	2,227,304	**100.0%**	7.49	7.90	**8,735**	**8,517**	**2,931**	**3,077**
	OPERATING EXPENSES								
	Labour Expenses								
F09	Wages	176,300	7.9%	0.59	0.66	691	711	232	257
F10	Labour Adjustment - Unpaid	8,800	0.4%	0.03	0.10	35	110	12	40
F11	Labour Adjustment - Management	63,467	2.8%	0.21	0.34	249	366	84	132
F12	Total Labour Expenses	248,567	11.2%	0.84	1.10	975	1,188	327	429
	Stock Expenses								
F13	Animal Health	92,789	4.2%	0.31	0.26	364	276	122	100
F14	Breeding & Herd Improvement	32,564	1.5%	0.11	0.17	128	181	43	65
F15	Farm Dairy	29,143	1.3%	0.10	0.06	114	69	38	25
F16	Electricity (Farm Dairy, Water Supply)	34,985	1.6%	0.12	0.12	137	125	46	45
F17	Total Stock Expenses	189,481	8.5%	0.64	0.60	743	651	249	235
	Feed Expenses								
	Supplement Expenses.								
F18	Net Made, Purchased, Cropped	235,000	10.6%	0.79	1.16	922	1254	309	453
F19	Less Feed Inventory Adjustment	490	0.0%	0.00	-0.03	2	-36	1	-13
F20	Calf Feed	8,120	0.4%	0.03	0.03	32	58	11	21
F21	Total Supplement Expenses	242,630	10.9%	0.82	1.25	951	1348	319	487
	Grazing & Support block Expenses.								
F22	Young & Dry Stock Grazing	33,000	1.5%	0.11	0.24	129	263	43	95
F23	Winter Cow Grazing	0	0.0%	0.00	0.02	0	16	0	6
F24	Support block Lease	0	0.0%	0.00	0.06	0	61	0	22
F25	Owned Support block Adjustment	78,300	3.5%	0.26	0.09	307	98	103	35
F26	Total Grazing & Support block Expenses	111,300	5.0%	0.37	0.41	436	438	146	158
F27	Total Feed Expenses	353,930	15.9%	1.19	1.66	1,388	1,786	466	645
	Other Working Expenses								
F28	Fertiliser	88,756	4.0%	0.30	0.37	348	402	117	145
F29	Nitrogen	0	0.0%	0.00	0.05	0	52	0	19
F30	Irrigation	0	0.0%	0.00	0.01	0	8	0	3
F31	Regrassing	5,234	0.2%	0.02	0.08	21	87	7	31
F32	Weed & Pest	14,255	0.6%	0.05	0.03	56	36	19	13
F33	Vehicles	10,356	0.5%	0.03	0.15	41	158	14	57
F34	Fuel	30,745	1.4%	0.10	0.05	121	58	40	21
F35	R & M - land & buildings	26,607	1.2%	0.09	0.29	104	314	35	113
F36	R & M - plant and equipment	12,833	0.6%	0.04	0.11	50	120	17	43
F37	Freight and General	12,467	0.6%	0.04	0.07	49	76	16	28
F38	Total Other Working Expenses	201,253	9.0%	0.68	1.22	789	1313	265	474
	Overheads								
F39	Administration	24,562	1.1%	0.08	0.13	96	139	32	50
F40	Insurance	19,256	0.9%	0.06	0.09	76	92	25	33
F41	ACC	15,444	0.7%	0.05	0.02	61	22	20	8
F42	Rates	16,157	0.7%	0.05	0.15	63	157	21	57
F43	Depreciation	197,421	8.9%	0.66	0.41	774	445	260	161
F44	Total Overheads	272,840	12.2%	0.92	0.79	1,070	856	359	309
F45	**Total Dairy Operating Expenses**	1,266,071	56.8%	4.26	5.38	4,965	5,794	1,666	2,093
F46	Non-Dairy Operating Expenses	0	0.0%	0.00	0.14	0	149	0	54
F47	**Total Operating Expenses**	1,266,071	56.8%	4.26	5.51	4,965	5,944	1,666	2,147
	OPERATING PROFIT								
F48	**Dairy Operating Profit**	961,233	43.2%	3.23	2.36	3,770	2,543	1,265	919
F49	Non-Dairy Operating Profit	0	0.0%	0.00	0.03	0	31	0	11
F50	**Total Operating Profit**	961,233	43.2%	3.23	2.39	3,770	2,574	1,265	930

Gross Farm Revenue (GFR)

F01 Net Milk Sales:
Same figure as E01

F02 Net Dairy Livestock Sales:
Same figure as E02

F03 Value of Change in Dairy Livestock:
Same figure as E13

F04 Other Dairy Revenue:
Same figure as E03

F05 Dairy Gross Farm Revenue:
F01 + F02 + F03 + F04
Same figure as E22

F06 Non-Dairy Cash Income:
Total cash income generated from farm assets that are not dairy related e.g. non-dairy net livestock sales, cash revenue from other livestock products e.g. wool, velvet, firewood, metal royalties, orchard products, viticulture, and sustainable forestry harvest.
Includes large one off revenue items such as one-off forestry harvests.
Non-dairy operations that are not enterprise accounted will be included in Dairy.

F07 Value of Change in Non-Dairy Livestock:
This is the value of the change in non-dairy livestock numbers for the year at closing NAMV (National Average Market Value) i.e. closing numbers of non-dairy livestock less opening numbers of non-dairy livestock valued at closing NAMV values.
Non-dairy livestock include beef cattle, sheep and deer.
Note that 'other livestock' such as horses, pigs and ostriches are not re-valued and are included at book value.

F08 Total Gross Farm Revenue:
F05 + F06 + F07
All Cash and non-cash revenue generated from dairy and other farm assets.

Operating Expenses

1 Labour Expenses

F09 Wages
Wages and salaries paid to farm employees.
Includes labour for calf rearing, relief milking, casual workers, rations and less subsidies.
Excludes any salaries or directors fees paid to the farm family, any payments made to children from the business and any specific contract work such as cultivation or fencing etc which can be added to the specific item.
Same figure as E05

F10 Labour Adjustment – Unpaid

Unpaid family labour:

1 FTE = 2,400 hours @ $Standard market rate

See DairyBase website for latest values.

Multiply the number of non-paid FTEs (C23) by $ annual value

F11 Labour Adjustment – Management

*C18 * Equation below * C24*

Family management is based on the number of Peak Cows Milked (C18)

Less than 100 Cows	*$Base rate*
100 to 400 Cows	*$Base rate + $ per cow rate over 100*
400 to 1,000 Cows	*$Base rate + $ per cow rate over 400*
1000 to 1199 Cows	*$Base rate + $ per cow rate over 1000*
>1200 Cows	*$Base rate*

Refer to DairyBase website for latest values

Multiply the number of Peak Cows Milked (C18) by the appropriate equation above, proportioned to the number of management FTEs (C24), if under 1.0.

F12 Total Labour Expenses

F09 + F10 + F11

Total cost of labour employed on the farm.

It includes wages paid, employee ACC levy, Kiwisaver payments, plus adjustments for the value of unpaid family labour and unpaid family management.

Same figure as E23

2 Stock Expenses

F13 Animal Health

All animal health prevention and treatment expenditure. Include costs such as vet fees and supplies, bloat treatment, drenches, vaccines and minerals.

Note: molasses is included in feed purchased (F18).

F14 Breeding & Herd Improvement

All breeding and herd testing expenditure.

This includes bull hire, stock identification and recording, artificial insemination, pregnancy testing, and herd production tests, less any rebates.

F15 Farm Dairy

Includes all items related to the cost of running the dairy shed, excluding electricity.

Include the cost of items such as detergents, rubber ware, oil for milking machines, filter socks and other consumables etc.

F16 Electricity (Farm Dairy, Water Supply)

All farm electricity including farm dairy and water supply plus the farm portion of domestic electricity.

Excludes electricity for irrigation (F31).

F17 Total Stock Expenses

F13 + F14 + F15 + F16

Total expenditure relating to stock (not sales or purchases or feed).

It includes expenditure on animal health, breeding and herd testing, farm dairy and farm electricity excluding irrigation electricity.

Same figure as E06 and E24

3 Feed Expenditure

3a Supplementary Expenses

F18 Net Made, Purchased, Cropped

The net expenses relating to cropping (e.g. cultivation and sowing) and making of supplements including contracting, cartage of supplements and stacking.

Also includes any Supplements purchased.

Figure is net of any revenue from feed sold.

F19 Less Feed Inventory Adjustment

(Closing Supplement tonnes DM – Opening Supplement tonnes DM) x $(estimated market value)

Closing supplementary feed (DM tonnes) less Opening supplementary feed (DM tonnes) valued at KgDM.

A financial adjustment for the change in supplementary feed held on hand at the start of each season.

Refer to DairyBase website for latest values.

Same figure as E15

F20 Calf Feed

Feed costs associated with calf rearing.

Include milk powder and muesli meal.

Labour is excluded as it is covered in the labour expenses category.

Calfeterias, other feeding equipment and calf covers are included in R & M – Plant and Machinery.

Sawdust/shavings are included in R & M – Land and Buildings.

F21 Total Supplement Expenses

F18 - F19 +F21

Total expenditure relating to feed purchased, crops and supplements made and calf rearing. It includes adjustments for supplements sold and the value of change in feed inventory.

Same figure as E25

3b Grazing and Support Block Expenses

F22 Young & Dry Stock Grazing

The cost of young stock and dry stock (include bull) grazing off-farm.

Note: any revenues for dry stock grazing will be netted off.

F23 Winter Cow Grazing

The cost of grazing dry cows off the farm.

Include in-calf cows grazed off during the summer.
Note: any revenues for winter grazing will be netted off.

F24 Support Block Lease

Rent paid for the lease of support block land used for the dairy operation (net of any lease revenue).
Land leased for non-dairy purposes is included in Non-Dairy Operating Expenses (F47).

F25 Owned Support block Adjustment

If a support block is owned an adjustment is made to reflect the cost of owning this land so that comparisons can be made with farms which may lease or pay for grazing. I.e. if the land was to be leased what would be the market value of the lease?
(dairy owned Total hectares (C32) * market rental value/ha.
If the market rental value is unknown then the default adjustment is calculated by (dairy owned Total hectares (C32 (C30)) * $xxx per hectare for the region. This per hectare value is assessed annually.
Refer to DairyBase website for latest values.
Same figure as E16

F26 Total Grazing and Support Block Expenses

F22 + F23 + F24 + F25
Total expenditure relating to stock grazed off farm, rent paid for the lease of support block land and an adjustment for the assessed cost of owning support block land.
Same figure as E26

F27 Total Feed Expenses

F21 + F26
Total net expenditure relating to feed.
It includes all supplementary feed expenses (made, purchased and sold plus adjustment for change in feed inventory) (F21) plus all grazing and expenses, including an adjustment for owned land (F26).

4 Other Working Expenses

F28 Fertiliser

All fertiliser and lime expenditure and related costs, except where Nitrogen has been itemised.
This is the applied cost so include cartage, spreading and soil test costs.
Fertiliser rebates are netted off expenditure.
Also include organic and liquid fertilisers, and trace elements applied to pasture but not administered directly to livestock.

F29 Nitrogen

Nitrogen expenditure if this has been itemised in the accounts.
If not shown here, then will be included in fertiliser (F28).

F30 Irrigation

Total electricity and fuel costs associated with running irrigation equipment.
Also includes irrigation water rates.

F31 Regrassing

The cost of pasture renewal or establishment.
Include grass seed, spray, cultivation, direct seed drilling and any related contracting costs.
Exclude fuel and vehicle costs.

F32 Weed & Pest

All weed and pest control expenditure, including chemicals, sprays and related hourly and contracting costs.

F33 Vehicles

All farm vehicle expenses and farm portion of car expenses, excluding fuel.
Include registration, WOF, vehicle repairs and maintenance, road user charges for diesel vehicles and the short-term lease (less than 1 year) of any vehicles.

F34 Fuel

All farm fuel costs, including farm portion of private car fuel.
This will include petrol, diesel, oil and grease.
Exclude fuel for irrigation and oil for dairy shed.

F35 Repairs and Maintenance – land & buildings

Total farm repairs and maintenance costs relating to land and buildings, including deferred maintenance e.g. fence material plus contract costs of fencing, other contracting such as bulldozing, and drain cleaning, soil conservation, water supply materials and track materials.
Exclude extraordinary expenditure (E41).

F36 Repairs and Maintenance – plant & equipment

Total farm repairs and maintenance costs relating to plant and equipment, including deferred maintenance e.g. tools and hardware, plant and machinery including milk plant maintenance and irrigation R&M.
Exclude vehicle repairs and maintenance (F33).

F37 Freight and General

All freight costs unassigned to specific expenditure and general farm working expenses that do not fit into any of the other categories e.g. protective clothing, dog and horse feed.

F38 Total Other Working Expenses

F28 + F29 + F30 + F31 + F32 + F33 + F34 + F35 + F36 + F37
This is the sum of fertiliser, nitrogen, irrigation, regrassing, weed and pest, vehicles, fuel, R&M, and freight and general working expenditure.
Same figure as E09 and E27

5 Overheads

F39 Administration

Total farm administration costs excluding private portions.

These typically include accountancy, consultancy and legal fees, farm orientated travel, communication expenses, advertising, resource consent fees (other than major development projects), stationery and subscriptions to societies, clubs, papers and magazines.

F40 Insurance

Total farm insurance, excluding private portion of dwelling insurance.

Also include the insurance premium paid to secure an agreed exchange rate in the future (currency hedging).

Note: insurance claims are not revenue and should be where possible netted off the appropriate expenditure item.

F41 ACC

All self employed and employers ACC levies paid.

F42 Rates

Rates paid on all owned milking and dairy land.

Include all district and regional government rates and general water rates.

Exclude irrigation rates (F30)

F43 Depreciation

Total farm portion of depreciation on all dairy farm assets (except livestock), including depreciation recovered and loss on sale of assets i.e. buildings, improvements, plant and machinery, vehicles.

Excludes depreciation on non-farm assets, these are entered in Non-Dairy Operating Expenses.

Same figure as E17

F44 Total Overheads

F39 +F40 + F41 + F42 + F43

This is the sum of all overhead expenses including administration, insurance, ACC self-employed levy, rates and depreciation.

Same figure as E28

F45 Total Dairy Operating Expenses

F12 + F17 + F28 + F39 + F45

Total dairy farm expenditure (cash and non-cash), including labour, stock, feed, other working expenses and overheads.

Same figure as E29

F46 Non-Dairy Operating Expenses

Total non-dairy farm expenses (cash and non-cash).

These typically include shearing, velveting, cash cropping, silviculture, viticulture and orchards expenses etc and any depreciation for non-dairy farm assets.

F47 Total Operating Expenses

F45 + F46

Total farm expenditure including dairy (F46) and non-dairy (F47) expenditure.

Operating Profit

F48 Dairy Operating Profit

F05 - F45

Dairy GFR (F05) less Total Dairy Operating Expenses (F45).

EFS is a measure of dairy farm profitability.

It is the dairy operating return after an allowance for the value of change in dairy livestock numbers, non-paid labour and management, supplementary feed inventory, and owned adjustment and depreciation.

Same figure as E30

F49 Non-Dairy Operating Profit

(F06 + F07) - F46

Non-Dairy GFR (F06 + F07) less Non- Dairy Operating Expenses (F46).

It is the non-dairy return after an allowance for change in non-dairy livestock numbers, and depreciation.

Same figure as E46

F50 Total Operating Profit *(including non-dairy)*

F48 + F49

Dairy Operating Profit (F48) plus Non-Dairy Operating Profit (F49).

Total operating profit is a measure of farm profitability from both dairy and non-dairy operations.

Physical Detail A

DairyBase by DairyNZ

Physical Detail A

Training - Farm A

Dairy Season ended: 2020 **Printed:** 27 July 2021

Number in Benchmark Group: 155

Benchmark Group Selected by: Farm business type (1- Owner operator) | Island (North Island)

			2019/2020		2018/2019	2017/2018
	Physical Description	**Units**	**Farm**	**Benchmark**	**Farm**	**Farm**
P01	Milking area	ha	255.0	146.7	255.0	255.0
P02	Support block effective area	ha	80.0	28.8	80.0	80.0
P03	Percent of farm at different height to dairy		0%	27%	0%	0%
P04	Peak cows milked		760	406	757	755
P05	Stocking rate	cows/ha	3.0	2.8	3.0	3.0
P06	Cow breed		Crossbred	Crossbred	Crossbred	Crossbred
P07	Cow liveweight	kg	480	471	480	480
P08	Liveweight/ha	kg/ha	1,431	1,303	1,425	1,421
P09	BW/reliability		102 / 52 LIC		85 / 48 LIC	82 / 46 LIC
P10	PW/reliability		110 / 48 LIC		96 / 65 LIC	94 / 64 LIC
P11	Season's rainfall	mm	794 NIWA	1062	695 NIWA	839 NIWA
P12	NIWA 10 Year average rainfall	mm	903	1,180	920	970
P13	Production system		3		3	4
P14	Calving season		Spring only	Spring only	Spring only	Spring only
	Production Summary (1 Jun - 31 May)					
P15	Milksolids per cow	kg/cow	391	390	387	386
P16	Milksolids (kg/cow) as % of cow liveweight	%	82%	83%	81%	80%
P17	Milksolids per hectare	kg/ha	1,166	1,078	1,150	1,143
P18	Days in milk per cow (Spring and/or Autumn herd)	days	231	236	257	255
P19	Average milksolids production per cow per day	kg/cow/day	1.7	1.6	1.5	1.5
	Spring Herd Production					
P20	Daily milksolids production for 10 days at peak	kg/cow/day	1.70	1.94	1.83	1.85
P21	Milksolids to 31 Dec as % of total milksolids	%	51.3%	63.9%	53.2%	52.8%
P22	Monthly production drop from peak to 31 Dec	%	7.4%	8.7%	9.0%	9.5%
	Autumn Herd Production					
P23	Daily milksolids production for 10 days at peak	kg/cow/day				
P24	Milksolids to 31 Aug as % of total milksolids	%				
P25	Monthly production drop from peak to 31 Aug	%				
	Feed Eaten (KPIs are based on 11.0 MJME/kg DM Pasture)					
P26	Pasture and crop harvested	t DM/ha	11.5	11.5	12.3	12.0
P27	- Pasture and crop exported	t DM/ha	0.2	0.3	0.0	0.0
P28	= Pasture & crop grown and eaten within season	t DM/ha	11.3	11.1	12.2	12.0
P29	+ Imported supplements eaten (externally sourced)	t DM/ha	1.8	2.3	1.8	2.0
P30	+ Imported supplements eaten (internally sourced)	t DM/ha	1.5	0.4	0.0	0.0
P31	+ Off-farm grazing eaten: dry cow winter grazing	t DM/ha	0.9	0.3	1.1	1.2
P32	+ Off-farm grazing eaten: replacement stock	t DM/ha	2.1	1.5	0.0	0.0
P33	= Total feed eaten	t DM/ha	17.6	15.7	15.1	15.1
P34	Imported supplement eaten	kg DM/cow	1,091	979	591	678
P35	Imported supplement and grazing off eaten	kg DM/cow	1,404	1,100	972	1,069
P36	Average utilisation of imported supplements	%	76%	81%	79%	81%
	Crops Grazed & Harvested					
P37	Farm area in grazed winter crop	ha	0.0	1.0	0.0	0.0
P38	Farm area in grazed summer crop	ha	0.0	4.6	0.0	0.0
P39	Farm area in harvest crop	ha	4.0	5.4	0.0	0.0
P40	Percent of farm harvested for hay & silage	%	6%	17%	6%	6%
	People					
P41	Cows/Labour unit	cows/FTE	224	140	223	216
P42	Milksolids/Labour unit	kg/FTE	87,448	54,552	86,264	83,265

Physical Description

P01 Effective Dairying (Milking) area (ha):

- It is the pasture and/or cropping area available for milking cows.
- This figure is used to calculate per ha KPIs.

Same figure as C29

P02 Support block effective area *(ha)*:

Effective support block area (freehold and leasehold) used to support the Effective Dairying (Milking) area. Note: does not include area used for significant non-dairy operations.

Same figure as C32

P03 Percent of farm at different height to dairy:

The percentage of the effective farm area that is considered to be at a different elevation to the farm dairy.

P04 Peak Cows Milked:

The highest number of cows milked at any time during the season.

Same figure as C18

P05 Stocking Rate:

P04 / P01

The number of Peak Cows Milked (P06) divided by Effective Dairying (Milking) area (P01).

Same figure as C19

P06 Cow breed

The predominant breed of the herd.

Same figure as C17

P07 Cow Liveweight

Average cow liveweight (Kg) of the herd as at 1 December.

If this is not recorded then it may be estimated using the following data:

- **Jersey:** 370-390 kg
- **75% Jersey J12F4:** 400-440 kg
- **75% Friesian F12J4:** 440-470 kg
- **Average Crossbred:** 445 kg
- **Friesian:** 470-500 kg
- **Holstein Friesian:** 510-610 kg

P08 Liveweight/ha

*P07 * P05*

Average Cow Liveweight (P07) multiplied by stocking rate (P05).

P09 BW/reliability:

Breeding Worth as shown on herd records at the start of the season.

P10 PW/reliability:
Production Worth as shown on herd records at the start of the season.

P11 Season's Rainfall:
Rainfall recorded on the farm for the current season (mm).
This can be entered for an individual farm where it is recorded regularly otherwise the current full season's total rainfall supplied by NIWA will be displayed if it is available.
NIWA's previous season's rainfall data will be available in July.
Same figure as C12

P12 NIWA 10 Yr Av Rainfall (mm):
A 10 year rolling annual average rainfall for the district (C10) based on NIWA data.
The data represents the 1 June to 31 May period.
Same figure as C11

P13 Production system:
Indicates the level of imported feed and/or off-farm dry cow grazing for the system.
Same figure as C2.

P14 Calving season:
Shows the calving season for the farm.
Same figure as C5.

Milksolids (ms) Production to factory

P15 Milksolids per cow
C37b / P04
Milksolids Kg (C37b) divided by Peak Cows Milked. (P04)

P16 Milksolids (kg/cow) as % of cow liveweight
P15 / P07
Milksolids Kg per cow (P15) divided by the average liveweight of cows (P07).

P17 Milksolids per hectare
C37b / P01
Milksolids Kg (C37b) divided by Effective Dairying (Milking) area (P01).
Same figure as K02

P18 Days in milk per cow (Spring and/or Autumn herd)
Days in milk per cow is derived by calculating total cow milking days for the herd and dividing by the number of cows calved for the period (spring or autumn).
Where split calving occurs this figure is a weighted average over Spring and Autumn.

P19 Average milksolids production per cow per day
P15 / P23
Average milksolids per cow (P15) for the production season divided by days in milk per cow (P18).

Spring Herd Production

P20 Daily milksolids production for 10 days at peak
Highest average daily milksolids produced (including milksolids fed to calves) divided by the average number of cows milked for the 10-day period.
The 10-day peak is the 10-day dairy company period in which the cows reach their peak daily milksolids production (including calf milk). E.g. If the peak is reached during the first 10-day period of October then the average daily milksolids production during that 10-day period is used.
The recorded date of peak production would be 10 October i.e. last day of period.

P21 Milksolids to 31 Dec as % of total milksolids
Total milksolids (including milk for non-replacements) from 1 June to 31 December divided by total milksolids supplied during the season.

P22 Monthly production drop from peak to 31 Dec
(1 - (MS/Cow/Day at 31 Dec / MS/Cow/Day at Peak) / No of days from Peak to 31 Dec)) * 30 days
The per cow drop in production from peak to 31 December as a proportion of peak production, expressed as an average drop per month.
Note: both the Peak and 31 Dec production are calculated as the average for the 10-day period.

Autumn Herd Production

P23 Daily milksolids production for 10 days at peak
Highest average daily milksolids produced (including milksolids fed to calves) divided by the average number of cows milked for the 10-day period.
The 10-day peak is the 10-day dairy company period in which the cows reach their peak daily milksolids production (including calf milk). E.g. If the peak is reached during the first 10-day period of June then the average daily milksolids production during that 10-day period is used.
The recorded date of peak production would be 10 June, i.e. last day of period.

P24 Milksolids to 31 Aug as % of total milksolids
Total milksolids (including milk for non-replacements) from 1 June to 31 August divided by total milksolids supplied during the season.

P25 Monthly production drop from peak to 31 August
(1 - (MS/Cow/Day at 31 Aug / MS/Cow/Day at Peak) / No of days from Peak to 31 Aug)) * 30 days
The per cow drop in production from peak to 31 August as a proportion of peak production, expressed as an average drop per month.
Note: both the Peak and 31 August production are calculated as the average for the 10-day period.

Feed Eaten

P26 Pasture and crop harvested *(t DM/ha)*
Pasture and crop harvested shown in tonnes per hectare, assuming a standard ME of 11.0.

P27 Pasture and crop exported *(t DM/ha)*

Pasture and crop grown on the milking platform and exported – includes to feed inventory, stock on the support block, fed out on support block or sold off farm.

P28 Pasture & crop grown and eaten within season *(t DM/ha)*
The total pasture and crop harvested minus any pasture and crop exported off the milking platform during the season.

P29 Imported supplements eaten (externally sourced)
Net tonnes DM of feed imported from external sources divided by milking area (P01).

P30 Imported supplements eaten (internally sourced)
Net tonnes DM of supplements made on the milking platform in previous season and fed this season, divided by milking area (P01).

P31 Off-farm grazing eaten: dry cow winter grazing
Average days dry cows grazed off * Average Kg DM offered per cow/day.* percent utilised

- This figure is divided by 1,000 to convert kilograms to tonnes DM.
- This is expressed per ha so the total tonnes are divided by milking area (P01).

P32 Off-farm grazing eaten: replacement stock
Net tonnes DM of feed required by replacement stock grazed off the milking platform over the length of their grazing. This is expressed per ha, so the total tonnes are divided by milking area (P01).

P33 Total Feed Eaten
Total feed eaten on the milking area in tonnes DM per hectare. Includes Pasture and crop, imported supplements and grazing off of milking cows and replacement stock.

P34 Imported supplements eaten
Total of Supplements Imported (tonnes DM) * utilisation percent (for each feed type), * 1000 / Peak Cow Numbers (P06)

P35 Imported supplement and grazing off eaten
Imported supplements (P34) + feed from grazing off per cow

P36 Average utilisation imported supplement
A weighted average of utilisation percent of feeds imported

Crops Grazed & Harvested

P37 Farm area in grazed winter crop
Winter crop area (ha) grazed by milking cows

P38 Farm area in grazed summer crop
Summer crop area (ha) grazed by milking cows

P39 Farm area in harvest crop
Area (ha) of milking area harvested for harvest crop

P40 Percent of farm harvested for hay & silage
Area harvested for hay and silage as a percentage of milking area

People

P39 Cows/Labour unit
P06 / C25
Peak Cows Milked (P06) divided by Full Time Equivalent labour units (C25).
Same figure as K04

P40 Milksolids/Labour unit
C37a/C25
Milksolids Kg (C37a) divided by Full Time Equivalent labour units (C25).
Same figure as K05

Physical Detail B

The physical Detail B report uses information that is optional and therefore may have areas with missing data. Industry targets are used instead of benchmarks.

DairyBase by DairyNZ

Physical Detail B

Training - Farm A

Dairy Season ended: 2020 **Printed:** 27 July 2021

No DairyBase benchmarks are available for this page, industry targets are provided where applicable.

			2019/2020		2018/2019	2017/2018
	Mastitis and Lameness	**Units**	**Target**	**Farm**	**Farm**	**Farm**
P43	Antibiotic treatments for lameness	%	<3%	3%	10%	10%
P44	Antibiotic treatments for mastitis	%	<8%*	11%	11%	11%
P45	Average bulk SCC ('000s)	1000s	<125*	211	122	123
	Calving and Mating (Based on InCalf Fertility Focus Report)					
	Reproduction (Spring Herd)		**Target**			
P46	6-week in-calf rate	%	78%	71%	67%	65%
P47	3-week submission rate	%	90%	88%	82%	79%
P48	Not-In-Calf rate	%	11%	16%	13%	14%
P49	% calved by week 6	%	88%	72%	85%	83%
P50	Non-cycling cows treated	%		10%	10%	11%
P51	Length of AB period	weeks		4	4	4
P52	Length of total mating	weeks		10	10	10
P53	% of cows calving in Spring (vs Autumn)	%		100%	100%	100%
P54	Spring planned start of calving date	date		25 Jul	26 Jul	27 Jul
	Reproduction (Autumn Herd)		**Target**			
P55	6-week in-calf rate	%				
P56	3-week submission rate	%				
P57	Not-In-Calf rate	%				
P58	% calved by week 6	%				
P59	Non-cycling cows treated	%		0%	0%	0%
P60	Length of AB period	weeks		0	0	0
P61	Length of total mating	weeks		0	0	0
P62	Autumn planned start of calving date	date				
	Soils & Fertiliser		**Benchmark**			
P63	Olsen P range			11 - 52	39	38
P64	pH range			5.8 - 6.5	6.2	6.2
P65	Nitrogen applied for year	kg/ha	115	135	127	128
P66	Phosphate applied for year	kg/ha	22	18	18	19
P67	Potassium applied for year	kg/ha	38	5	2	2
P68	Lime applied for year	kg/ha	219	314	451	431
	Irrigation		**Benchmark**			
P69	Irrigation water applied annually	mm	18	0	0	0
P70	Total water applied annually: irrigation + rainfall	mm	1,080	794	695	839
P71	Pasture and crop harvested per mm of water	kg DM/ha/mm	21	32	31	22
P72	Water used in dairy shed annually	litres/cow		0	0	0
P73	Total area irrigated	ha		0	0	0
P74	Percentage of milking platform irrigated	%	5%	0%	0%	0%

Comments: * Industry targets: Not-in-calf rate target is based on the length of total mating and relates to the current season. SCC and Clinical mastitis targets are based on top 10%.

0

Stock and Animal Health

P43 Antibiotic treatments for lameness
The number of recorded cases of antibiotic treatments for lameness during the season as a percentage of Peak Cows Milked (P04).

P44 Antibiotic treatments for mastitis
The number of recorded cases of antibiotic treatments for mastitis during the season as a percentage of Peak Cows Milked (P04).

P45 Average bulk SCC ('000s)
Average Bulk Somatic Cell Count for the season as recorded by the Dairy Company.

Calving and Mating

Reproduction (Spring Herd)

P46 6-week in-calf rate
Percent of the herd in-calf at 6-weeks.

P47 3-week submission rate
The number of cows mated once, 21 days from Planned Start of Mating (PSM) as a proportion of peak cows milked (P04). Note this is the number of cows not the number of matings.

P48 Not-In-Calf rate
Percentage of cows not pregnant after 100 days of mating.

P49 % calved by week 6
The number of cows calved (6 weeks) 42 days from PSC as a proportion of total cows and R2 heifers to clave.

P50 Non-cycling cows treated
The number of cows treated with CIDR's or similar treatment as a proportion of Peak Cows Milked (P04).

P51 Length of AB period
The number of weeks from planned start of mating (PSM) to the date when AB finished for the spring.

P52 Length of total mating
The number of weeks from Planned Start of Mating (PSM) to the date when the bull is removed.

P53 % of Cows Calving in Spring (vs Autumn)
Number of cows calving between 1 June and 31 Dec as % of total cows calved on farm.

P54 Spring planned start of calving date
Planned start of calving (PSC) date for mixed aged (MA) cows in the spring.

Reproduction (Autumn Herd)

P55 6-week in-calf rate
Percent of the herd in-calf at 6-weeks.

P56 3-week submission rate
The number of cows mated once, 21 days from Planned Start of Mating (PSM) as a proportion of peak cows milked (P04). Note this is the number of cows not the number of matings.

P57 Not-In-Calf rate
Percentage of cows not pregnant after 100 days of mating.

P58 % calved by week 6
The number of cows calved (6 weeks) 42 days from PSC as a proportion of total cows and R2 heifers to clave.

P59 Non-cycling cows treated
The number of cows treated with CIDR's or similar treatment as a proportion of Peak Cows Milked (P04).

P60 Length of AB period
The number of weeks from planned start of mating (PSM) to the date when AB finished for the Autumn.

P61 Length of total mating
The number of weeks from Planned Start of Mating (PSM) to the date when the bull is removed.

P62 Autumn planned start of calving date
Planned start of calving (PSC) date for mixed aged (MA) cows in the Autumn.

Soils & Fertiliser

P63 Olsen P range
The Olsen P range for the Effective Dairying area (min - max).
This is a measure of Phosphorus (P) available for the plant and is from soil test data measured at 75mm deep.

P64 pH range
The soil PH range for the Effective Dairying area (min - max).
This is a measure of soil acidity and is from soil test data measured at 75mm.

P65 Nitrogen Applied for year
Kilograms of Nitrogen (N) applied to the Effective Dairying area for the season.
This excludes natural application through cow urea. **Note**: this is the nitrogen component and not Urea.

P66 Phosphate applied for year

Kilograms of Phosphate (P) applied to the Effective Dairying area for the season (kg/ha).

P67 Potassium applied for year
Kilograms of Potassium (K) applied to the Effective Dairying area for the season (kg/ha).

P68 Lime applied for year
Kilograms of Lime applied to the Effective Dairying area for the season (kg/ha).

Irrigation

P69 Irrigation water applied annually
The annual millimetres of water applied to the effective milking platform.
Note: this does not include effluent sprayed onto pasture or natural rainfall.

P70 Total water applied annually: irrigation + rainfall
The annual millimetres of water applied to the effective milking platform from both irrigation and natural rain fall (mm irrigated/ha). **Note:** this does not include effluent sprayed onto pasture.

P71 Pasture and crop harvested per mm of water
Shows Pasture response to irrigation. Pasture Eaten in kg / water applied and rainfall during irrigation season.

P72 Water used in dairy shed annually
Shows the litre per cow of water used in the dairy shed during the season. Water volume is normally taken from in shed water metres to get an accurate reading.

P73 Total area irrigated
The area of milking land irrigated (ha), does not include effluent sprayed area.

P74 Percent of effective area irrigated %
The area of milking land irrigated as a proportion of the Effective Dairying area (P01). Does not include effluent sprayed area.