

DAIRY SECTOR PERCENTILE ANALYSIS

The following tables and graphs are based on an analysis of the total national sample of dairy farms monitored as part of the MAF monitoring programme. The analysis compares the bottom 10 percent of farms to the top 10 percent, based on their farm profit before tax per hectare for both 2008/09 and 2009/10.

PERCENTILE ANALYSIS

»» TABLE 1: PERCENTILE ASSESSMENT OF FINANCIAL DATA FROM MONITORED DAIRY FARMS, 2008/09

		AVERAGE OF				AVERAGE OF		
	BOTTOM 10% (\$)	BOTTOM 25% (\$)	BOTTOM 25-50% (\$)	MEAN (\$)	MEDIAN (\$)	TOP 50-75% (\$)	TOP 25% (\$)	TOP 10% (\$)
REVENUE								
Milksolids	946 905	849 163	813 062	780 172	633 802	669 846	788 615	642 204
Cattle sales	59 790	56 088	65 662	61 030	48 396	58 886	63 485	51 602
Other revenue	4 917	10 656	12 339	10 320	1 457	3 774	14 513	3 592
Cattle purchases	8 265	14 956	12 779	10 121	1 775	7 157	5 590	4 059
Net cash income	1 003 119	901 580	880 029	842 334	682 358	726 340	861 388	693 339
Farm working expenses	811 022	716 531	606 118	572 417	468 821	441 898	525 121	420 296
Cash operating surplus	192 098	185 049	273 911	269 917	215 152	284 441	336 267	273 042
Rent	40 069	22 112	14 751	14 997	0	16 937	6 189	3 310
Interest	372 390	303 090	251 376	208 001	150 525	145 513	132 025	85 494
Stock value adjustment	57 482	60 251	14 213	10 966	2 490	-8 274	-22 327	-25 099
Depreciation	56 358	51 311	43 843	41 820	30 000	36 393	35 735	23 799
Farm profit before tax	-334 201	-251 714	-50 271	-5 867	22 853	93 872	184 644	185 538
Taxation	10 526	16 526	16 508	29 436	15 000	34 510	50 202	36 916
Farm profit after tax	-344 727	-268 240	-66 780	-35 304	-7 394	59 363	134 443	148 622
Add back depreciation	56 358	51 311	43 843	41 820	30 000	36 393	35 735	23 799
Reverse stock value adjustment	57 482	60 251	14 213	10 966	2 490	-8 274	-22 327	-25 099
Off-farm income	14 427	10 927	8 356	9 561	0	9 312	9 648	7 836
Discretionary cash	-216 461	-145 752	-369	27 043	42 119	96 795	157 498	155 158
Capital purchases	430 276	252 375	36 156	90 604	15 000	42 298	31 585	36 605
Development	207 726	94 812	56 336	58 010	0	30 583	50 309	11 273
Principal	9 778	9 946	12 929	19 745	3 398	27 642	28 464	30 897
Drawings	50 143	59 321	63 132	62 656	61 325	65 383	62 786	55 104
New borrowing	528 316	293 456	79 760	121 361	0	65 000	47 228	16 000
Cash surplus/deficit	-412 147	-289 100	-100 265	-98 471	-69 669	-8 726	4 208	38 000
Farm surplus for reinvestment	-281 031	-215 999	-71 857	-45 173	-29 103	22 099	85 064	92 217
Net farm profit before tax per hectare	-1 800	-1 286	-256	83	139	524	1 351	1 773
Proportion of farms with negative farm profit after tax	100%	100%	92%	55%	55%	12%	4%	0%
Proportion of farms with negative farm surplus for reinvestment	100%	94%	92%	66%	66%	46%	18%	10%

Photo: Bob Zuur.

»» TABLE 2: PERCENTILE ASSESSMENT OF PRODUCTION DATA FROM MONITORED FARMS, 2008/09

	AVERAGE OF					AVERAGE OF		
	BOTTOM 10% (\$)	BOTTOM 25% (\$)	BOTTOM 25-50% (\$)	MEAN (\$)	MEDIAN (\$)	TOP 50-75% (\$)	TOP 25% (\$)	TOP 10% (\$)
PHYSICAL PERFORMANCE DATA								
Milking area (ha)	215	210	203	187	150	188	146	104
Opening cow numbers	534	492	457	436	363	386	409	329
Closing cow numbers	557	515	464	440	374	382	399	318
Total opening stock numbers	670	626	588	557	464	491	523	421
Total closing stock numbers	715	662	598	563	479	487	505	404
Cows in milk (15 December)	504	467	437	406	350	335	387	313
Total milksolids production (kg)	185 647	166 781	157 097	148 413	123 194	124 632	145 143	114 036
Milksolids per hectare (kg/ha)	925	862	832	852	835	710	1006	1059
Milksolids production per cow	390	361	351	346	349	314	359	351
Stocking rate (cows/ha)	2.5	2.4	2.4	2.4	2.4	1.9	2.8	3.0
Opening assets	8 069 881	7 673 643	8 194 999	7 281 529	6 261 121	6 113 930	7 143 542	5 541 373
Opening debt	4 149 820	3 625 133	3 180 790	2 608 193	1 883 532	1 975 687	1 651 162	1 302 921
Equity (%)	49%	53%	61%	64%	70%	68%	77%	76%
Farm working expenses per kilogram of milksolids	4.37	4.30	3.86	3.86	3.81	3.55	3.62	3.69
Debt servicing per kilogram of milksolids	2.22	1.95	1.69	1.50	1.22	1.30	0.95	0.78
Drawings per kilogram of milksolids	0.27	0.36	0.40	0.42	0.50	0.52	0.43	0.48



»» TABLE 3: PERCENTILE ASSESSMENT OF FINANCIAL DATA FROM MONITORED DAIRY FARMS, 2009/10

	AVERAGE OF					AVERAGE OF		
	BOTTOM 10% (\$)	BOTTOM 25% (\$)	BOTTOM 25-50% (\$)	MEAN (\$)	MEDIAN (\$)	TOP 50-75% (\$)	TOP 25% (\$)	TOP 10% (\$)
REVENUE								
Milksolids	657 675	716 132	931 650	805 338	642 326	794 383	779 189	766 858
Cattle sales	43 157	49 362	63 838	55 280	48 118	55 129	52 041	41 045
Other revenue	5 260	5 868	10 868	7 262	1 000	2 674	2 156	2 064
Cattle purchases	5 187	5 269	6 140	4 744	0	4 288	3 145	3 042
Net cash income	705 057	767 750	1 002 833	864 810	676 958	849 806	838 853	806 925
Farm working expenses	487 826	519 583	604 346	515 122	427 966	486 913	449 645	413 367
Cash operating surplus	217 231	248 167	398 487	349 689	277 705	362 893	389 208	393 557
Rent	21 083	13 520	16 623	15 069	0	17 473	12 661	6 715
Interest	276 910	260 308	275 361	206 916	145 918	178 914	113 081	102 887
Stock value adjustment	31 750	23 922	4 689	6 239	2 031	-7 812	4 156	-2 193
Depreciation	49 157	48 386	42 958	41 097	30 000	33 973	39 072	35 831
Farm profit before tax	-161 669	-97 970	52 082	78 674	72 573	140 345	220 237	250 317
Taxation	4 540	8 036	19 536	25 492	13 247	29 966	44 429	55 921
Farm profit after tax	-166 208	-106 006	33 266	53 362	49 712	110 379	175 809	194 396
Add back depreciation	49 157	48 386	42 958	41 097	30 000	33 973	39 072	35 831
Reverse stock value adjustment	31 750	23 922	4 689	6 239	2 031	-7 812	4 156	-2 193
Off-Farm Income	2 690	7 887	9 487	8 561	0	9 025	7 845	8 021
Discretionary cash	-82 612	-25 811	90 233	109 068	101 823	145 565	226 286	236 011
Capital purchases	26 666	68 793	22 417	35 085	4 850	17 195	31 936	22 962
Development	8 538	7 135	18 473	15 573	0	20 010	16 673	1 750
Principal	6 030	8 214	21 861	21 151	2 798	28 618	25 913	26 387
Drawings	50 911	53 060	64 881	59 732	59 620	61 864	59 122	47 775
New borrowing	56 655	70 489	38 580	60 414	0	95 420	37 166	1 850
Cash surplus/deficit	-112 434	-80 957	17 716	24 026	17 929	31 842	127 504	140 856
Farm surplus for reinvestment	-136 213	-86 758	15 866	40 776	29 423	74 676	159 319	180 215
Net farm profit before tax per hectare	-1 161	- 644	238	505	465	736	1 688	2 297
Proportion of farms with negative farm profit after tax	100%	100%	16%	31%	31%	0%	0%	0%
Proportion of farms with negative farm surplus for reinvestment	95%	82%	52%	38%	38%	8%	2%	5%

»» TABLE 4: PERCENTILE ASSESSMENT OF PRODUCTION DATA FROM MONITORED FARMS, 2009/10

	AVERAGE OF					AVERAGE OF		
	BOTTOM 10% (\$)	BOTTOM 25% (\$)	BOTTOM 25-50% (\$)	MEAN (\$)	MEDIAN (\$)	TOP 50-75% (\$)	TOP 25% (\$)	TOP 10% (\$)
PHYSICAL PERFORMANCE DATA								
Milking area (ha)	156	184	238	186	150	186	136	104
Opening cow numbers	370	411	519	440	371	438	392	363
Closing cow numbers	389	423	525	445	374	440	392	363
Total opening stock numbers	472	522	672	562	470	552	501	457
Total closing stock numbers	487	536	675	566	479	550	505	453
Cows in milk (15 December)	342	388	483	414	350	410	376	344
Total milksolids production (kg)	138 145	147 088	185 131	157 502	128 809	153 726	144 061	133 864
Milksolids per hectare (kg/ha)	1001	894	792	899	896	841	1071	1202
Milksolids production per cow	394	377	352	364	361	353	374	377
Stocking rate (cows/ha)	2.4	2.3	2.2	2.4	2.4	2.3	2.9	3.2
Opening assets	6 011 775	6 659 612	8 271 412	7 131 482	5 951 443	7 351 679	6 243 226	5 424 936
Opening debt	3 181 302	3 213 947	3 587 587	2 701 572	1 949 988	2 247 742	1 757 010	1 829 243
Equity (%)	47%	52%	57%	62%	67%	69%	72%	66%
Farm working expenses per kilogram of milksolids	3.53	3.53	3.26	3.27	3.32	3.17	3.12	3.09
Debt servicing per kilogram of milksolids	2.16	1.86	1.58	1.41	1.13	1.28	0.87	0.82
Drawings per kilogram of milksolids	0.37	0.36	0.35	0.38	0.46	0.40	0.41	0.36



BREAKEVEN ANALYSIS

»» TABLE 5: BREAKEVEN ANALYSIS OF PRODUCTION DATA FROM MONITORED DAIRY FARMS (DOLLARS PER KILOGRAM OF MILKSOLIDS)

	2008/09		2009/10	
	MEAN	MEDIAN	MEAN	MEDIAN
Farm working expenses	3.86	3.81	3.27	3.32
Debt servicing	1.50	1.22	1.41	1.13
Drawings	0.42	0.50	0.38	0.46
Total	5.78	5.53	5.06	4.91
Bottom 10%	6.86		6.06	
Top 10%	4.95		4.26	

The above table shows the “breakeven” point (covering farm working expenses, debt servicing and personal drawings) for the mean and median farm for both 2008/09 and 2009/10. For both years, breakeven is well above the payout level. This also ignores any capital depreciation, which is worth 28 cents per kilogram of milksolids in 2008/09 and 26 cents per kilogram of milksolids in 2009/10.

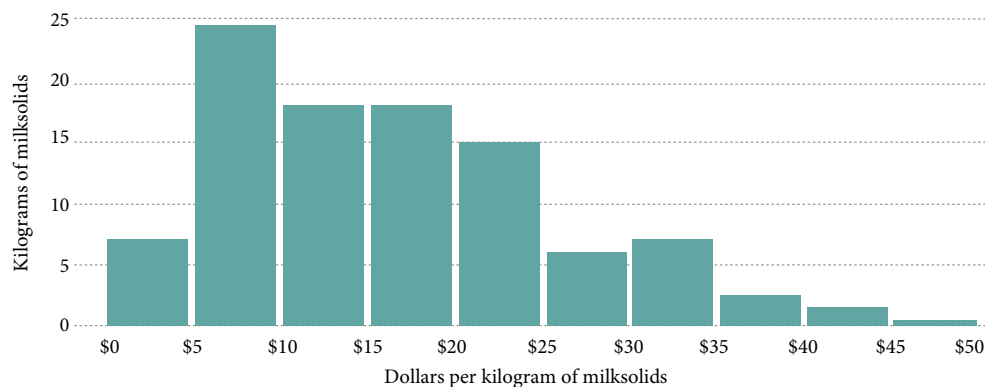
»» TABLE 6: COMPARISON BETWEEN LOW AND HIGH DECILE FARMS 2008/09

	AVERAGE OF BOTTOM 10%	AVERAGE OF TOP 10%
Milksolid per hectare (kg/ha)	925	1059
Milksolids per cow (kg/cow)	390	351
Stocking rate (cow/ha)	2.5	3.0
Farm working expenses per cow (\$)	1608	1343
Interest costs per cow (\$)	738	273
Farm profit before tax per ha (\$)	-1800	1773

While the lower decile farms have a higher per cow production, a lower stocking rate results in a lower per hectare production. They also have higher farm working expenses and debt servicing, leading to a much lower farm profit before tax. It may well be that many of the lower decile farms are in a developing stage and therefore facing higher costs and lower production.

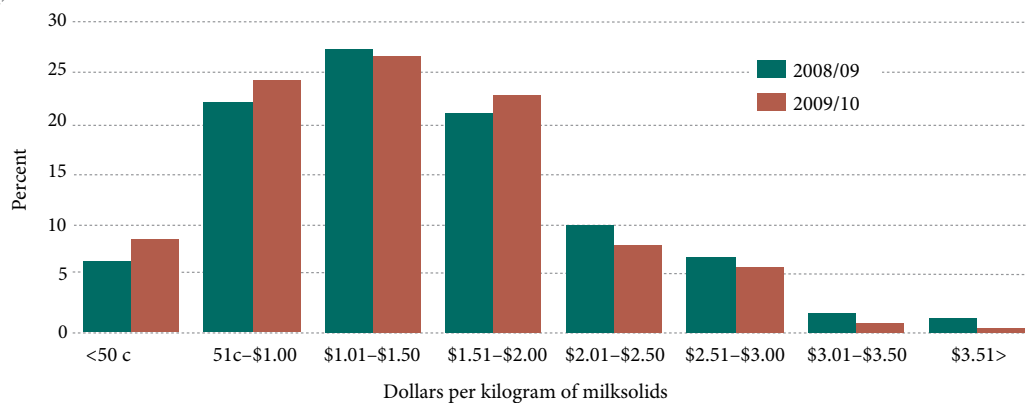
DEBT AND DEBT SERVICING

»» FIGURE 1: DISTRIBUTION OF TOTAL DEBT BY DOLLARS PER KILOGRAM OF MILKSOLIDS



The above graph shows the distribution of debt for the 200 monitored farms, with a mean debt level of \$17.57 per kilogram of milksolids. This is less than the approximately \$21 per kilogram of milksolids as reported by the Reserve Bank. The difference arises in that the farms monitored by MAF are largely owner-operated farms, which do not include corporate farms, equity partnerships, and recent conversions.

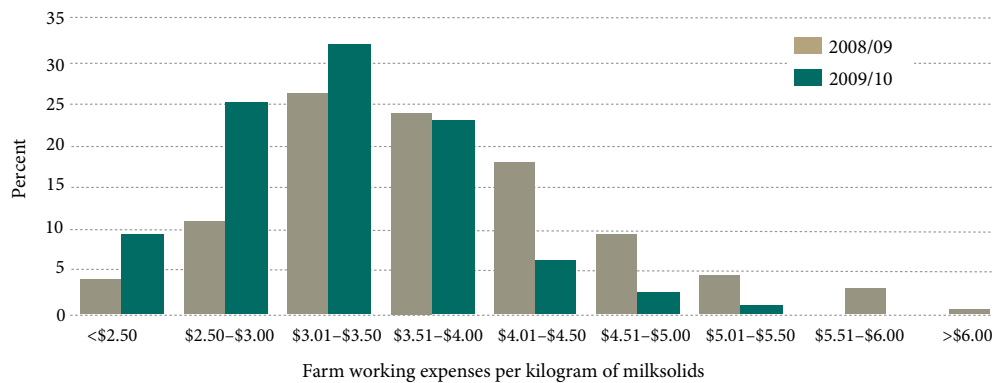
»» FIGURE 2: DEBT SERVICING DISTRIBUTION



This graph shows the debt servicing distribution for the 200 monitored farms for the 2008/09 season and budget for 2009/10. While total debt levels have increased, the drop in interest rates is starting to take effect, with average debt servicing of \$1.50 per kilogram of milksolids in 2008/09, reducing to \$1.41 per kilogram of milksolids in 2009/10.

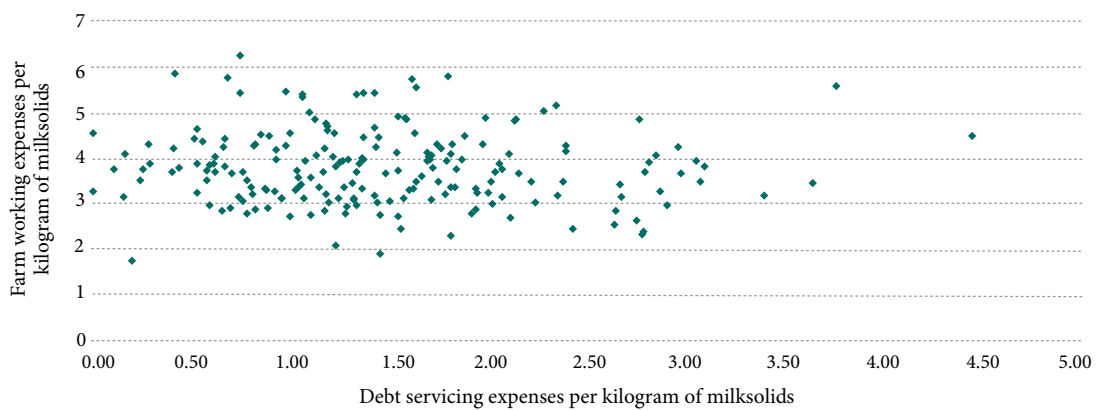
FARM WORKING EXPENSES

»» FIGURE 3: FARM WORKING EXPENSES DISTRIBUTION



This graph shows a significant shift to lower farm working expenses as farmers budget to reduce costs. Average farm working expenses dropped by 15 percent, from \$3.86 per kilogram of milksolids in 2008/09, to \$3.27 per kilogram of milksolids in 2009/10. The significant areas of reduced expenditure are repairs and maintenance (down 22 percent), feed (down 17 percent), and fertiliser (down 13 percent).

»» FIGURE 4: DEBT SERVICING EXPENSES VERSUS FARM WORKING EXPENSES



This scatter graph from the 200 monitored farms shows no relationship between debt servicing and farm working expenses. If a farm has high farm working expenses, it does not necessarily follow that they also have high debt servicing.

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