

**Summary Farm Performance - Dairy**  
**South Africa Production Systems Analysis**  
**Increasing Pasture Percentage of Diet**



	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>PHYSICAL PARAMETERS</b>					
Number of Cows in Herd	603	580	561	546	532
Total Effective Dairy Hectares	134.0	134.0	134.0	134.0	134.0
<b>Effective Milking Hectares</b>	<b>134.0</b>	<b>134.0</b>	<b>134.0</b>	<b>134.0</b>	<b>134.0</b>
<b>Cows per Milking Hectare</b>	<b>4.50</b>	<b>4.33</b>	<b>4.19</b>	<b>4.07</b>	<b>3.97</b>
<b>Litres per Cow</b>	<b>6,100</b>	<b>5,984</b>	<b>5,868</b>	<b>5,752</b>	<b>5,636</b>
Litres per Cow (ECM)	6,171	6,054	5,936	5,819	5,702
<b>Litres per Milking Hectare</b>	<b>27,450</b>	<b>25,901</b>	<b>24,567</b>	<b>23,437</b>	<b>22,376</b>
Litres per Milking Hectare (ECM)	27,770	26,203	24,853	23,710	22,637
<b>Litre Price</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>
Litre Price (ECM)	R 4.547	R 4.547	R 4.547	R 4.547	R 4.547
<b>Pasture Dry Matter Harvested (tDM/Ha)</b>	<b>11.34</b>	<b>11.79</b>	<b>12.23</b>	<b>12.69</b>	<b>13.12</b>
<b>KEY PERFORMANCE INDICATORS</b>					
<b>Operating Profit per Hectare</b>	<b>R 13,800</b>	<b>R 14,824</b>	<b>R 15,876</b>	<b>R 16,969</b>	<b>R 17,864</b>
<b>Operating Profit per Cow</b>	<b>R 3,067</b>	<b>R 3,425</b>	<b>R 3,792</b>	<b>R 4,165</b>	<b>R 4,500</b>
Operating Profit per Litre (ECM)	R 0.497	R 0.566	R 0.639	R 0.716	R 0.789
Total Assets per Ha at Start of Year (Avg Values)	R 300,832	R 297,971	R 295,531	R 293,715	R 291,787
<b>EQUITY % at Average Values</b>	<b>82.6 %</b>	<b>82.5 %</b>	<b>82.3 %</b>	<b>82.2 %</b>	<b>82.1 %</b>
<b>RETURN ON CAPITAL (ROC) at Average Values</b>	<b>6.01 %</b>	<b>6.41 %</b>	<b>6.82 %</b>	<b>7.23 %</b>	<b>7.59 %</b>
<b>Return on Assets (ROA) at Average Values</b>	<b>5.6 %</b>	<b>6.0 %</b>	<b>6.4 %</b>	<b>6.8 %</b>	<b>7.2 %</b>
ROA including Capital Gain at Average Values	5.6 %	6.0 %	6.4 %	6.8 %	7.2 %
<b>RETURN ON EQUITY (ROE) at Average Values</b>	<b>5.5 %</b>	<b>6.0 %</b>	<b>6.5 %</b>	<b>7.0 %</b>	<b>7.5 %</b>
ROE including Capital Gain at Average Values	5.5 %	6.0 %	6.5 %	7.0 %	7.5 %
<b>OPERATING PROFIT MARGIN</b>	<b>10.2 %</b>	<b>11.6 %</b>	<b>13.1 %</b>	<b>14.6 %</b>	<b>16.1 %</b>
<b>Cost of Production per Litre</b>	<b>R 4.097</b>	<b>R 4.028</b>	<b>R 3.954</b>	<b>R 3.876</b>	<b>R 3.802</b>
Cost of Production per Litre (ECM)	R 4.050	R 3.981	R 3.908	R 3.831	R 3.758
Financing Costs per Litre	R 0.156	R 0.166	R 0.175	R 0.183	R 0.192
Cost of Prod'n + Financing Cost per Litre	R 4.098	R 4.028	R 3.954	R 3.877	R 3.802
<b>Total Operating Expenses per Litre</b>	<b>R 4.417</b>	<b>R 4.355</b>	<b>R 4.289</b>	<b>R 4.219</b>	<b>R 4.150</b>
Total Operating Expenses per Litre (ECM)	R 4.366	R 4.304	R 4.239	R 4.171	R 4.102
Total Operating Expenses as % Gross Revenue	80.9 %	80.2 %	79.5 %	78.7 %	78.0 %
Financing Costs as % Gross Revenue	3.2 %	3.4 %	3.5 %	3.7 %	3.9 %
<b>Core per Cow Cost</b>	<b>R 5,485</b>	<b>R 5,395</b>	<b>R 5,299</b>	<b>R 5,198</b>	<b>R 5,096</b>
<b>Core per Hectare Cost per tDM Pasture Harvest</b>	<b>R 1,253</b>	<b>R 1,168</b>	<b>R 1,094</b>	<b>R 1,028</b>	<b>R 971</b>
<b>Management + Staff Cost per Cow</b>	<b>R 3,465</b>	<b>R 3,406</b>	<b>R 3,344</b>	<b>R 3,281</b>	<b>R 3,217</b>
Management + Staff Cost per Litre	R 0.57	R 0.57	R 0.57	R 0.57	R 0.57
<b>Cows per Full Time Staff Equivalent</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>
<b>Total Feed (Supplement+Pasture) Cost / Litre</b>	<b>R 2.752</b>	<b>R 2.691</b>	<b>R 2.629</b>	<b>R 2.563</b>	<b>R 2.498</b>
<b>Pasture Cost per Litre</b>	<b>R 0.495</b>	<b>R 0.525</b>	<b>R 0.553</b>	<b>R 0.580</b>	<b>R 0.608</b>
<b>Supplement Cost per Litre</b>	<b>R 2.257</b>	<b>R 2.166</b>	<b>R 2.075</b>	<b>R 1.983</b>	<b>R 1.891</b>
<b>Pasture as % of Total Consumed</b>	<b>41.0 %</b>	<b>45.0 %</b>	<b>49.0 %</b>	<b>53.0 %</b>	<b>57.0 %</b>
<b>Average Cost of All Consumed Feed (/tDM)</b>	<b>R 3,287</b>	<b>R 3,193</b>	<b>R 3,098</b>	<b>R 2,998</b>	<b>R 2,899</b>
<b>Pasture Cost (Per tDM)</b>	<b>R 2,516</b>	<b>R 2,442</b>	<b>R 2,373</b>	<b>R 2,305</b>	<b>R 2,246</b>
<b>Forage Cost (/tDM Consumed incl.wastage)</b>	<b>R 2,495</b>	<b>R 2,493</b>	<b>R 2,490</b>	<b>R 2,487</b>	<b>R 2,484</b>
<b>Concentrate Cost (/tDM Consumed incl.wastage)</b>	<b>R 4,611</b>	<b>R 4,589</b>	<b>R 4,567</b>	<b>R 4,546</b>	<b>R 4,525</b>
Pasture Direct Cost (Per tDM consumed)	R 1,199	R 1,154	R 1,112	R 1,071	R 1,036
Forage Purchase/Production Cost (/tDM consumed)	R 1,677	R 1,676	R 1,675	R 1,674	R 1,672
Concentrate Purchase/Production Cost (/tDM con.)	R 4,425	R 4,402	R 4,379	R 4,355	R 4,332



**Physical Summary - Dairy**  
**South Africa Production Systems Analysis**  
**Increasing Pasture Percentage of Diet**



	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>PHYSICAL PARAMETERS</b>					
<b>Number of Cows in Herd</b>	<b>603</b>	<b>580</b>	<b>561</b>	<b>546</b>	<b>532</b>
Effective Milking Hectares	134.0	134.0	134.0	134.0	134.0
<b>Cows per Milking Hectare</b>	<b>4.50</b>	<b>4.33</b>	<b>4.19</b>	<b>4.07</b>	<b>3.97</b>
Cows per Milking Pasture Hectare	4.63	4.45	4.30	4.19	4.08
Cow Liveweight per Milking Hectare	2,520	2,415	2,328	2,257	2,192
<b>Litre Price</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>	<b>R 4.600</b>
<b>Litres per Cow</b>	<b>6,100</b>	<b>5,984</b>	<b>5,868</b>	<b>5,752</b>	<b>5,636</b>
Litres (ECM) as Multiple of Cow Liveweight	11.02	10.85	10.68	10.50	10.33
<b>Litres per Milking Hectare</b>	<b>27,450</b>	<b>25,901</b>	<b>24,567</b>	<b>23,437</b>	<b>22,376</b>
Milkfat Percentage (mass/mass)	3.89 %	3.89 %	3.89 %	3.89 %	3.89 %
Protein Percentage (mass/mass)	3.36 %	3.36 %	3.36 %	3.36 %	3.36 %
Protein as a Percentage of Milkfat	86.3 %	86.3 %	86.3 %	86.3 %	86.3 %
<b>PASTURE &amp; SUPPLEMENTS</b>					
<b>Pasture Dry Matter Harvested (tDM/Ha)</b>	<b>11.34</b>	<b>11.79</b>	<b>12.23</b>	<b>12.69</b>	<b>13.12</b>
Estimated Dryland Pasture Harvest (tDM/Ha)	6.30	6.55	6.79	7.05	7.29
Estimated Irrigated Pasture Harvest (tDM/Ha)	12.60	13.10	13.59	14.10	14.58
<b>Percentage Hectares Irrigated</b>	<b>80.0 %</b>	<b>80.0 %</b>	<b>80.0 %</b>	<b>80.0 %</b>	<b>80.0 %</b>
Nitrogen Applied per Hectare	315.0	315.0	315.0	315.0	315.0
Total Grazed & Conserved Pasture (tDM/Ha)	11.34	11.79	12.23	12.69	13.12
Grazed Pasture (tDM/Ha)	11.19	11.63	12.07	12.54	12.97
Conserved Pasture (tDM/Ha)	0.15	0.15	0.15	0.15	0.15
<b>Pasture as % of Total Consumed</b>	<b>41.0 %</b>	<b>45.0 %</b>	<b>49.0 %</b>	<b>53.0 %</b>	<b>57.0 %</b>
Supplement as % of Total Consumed	59.0 %	55.0 %	51.0 %	47.0 %	43.0 %
- Forage as % of Total Consumed	22.0 %	20.5 %	19.0 %	17.5 %	16.0 %
- Concentrate as % of Total Consumed	37.0 %	34.5 %	32.0 %	29.5 %	27.0 %
Pasture Consumed Per Cow (estimated tDM)	2.37	2.56	2.76	2.94	3.13
Forage Consumed Per Cow (estimated tDM)	1.40	1.29	1.18	1.08	0.97
- Homegrown Forage Consumed (est tDM/cow)	1.35	1.24	1.14	1.04	0.93
- Imported Forage Consumed (est tDM/cow)	0.05	0.05	0.04	0.04	0.03
Concentrate Consumed Per Cow (estimated tAF)	1.99	1.84	1.68	1.53	1.38
<b>Total Consumed Per Cow (estimated tDM)</b>	<b>5.52</b>	<b>5.47</b>	<b>5.42</b>	<b>5.37</b>	<b>5.31</b>
Feed Conversion Efficiency (kgsDM/kgMS)	11.89	11.97	12.06	12.14	12.23
<b>Pasture Cost per Litre</b>	<b>R 0.495</b>	<b>R 0.525</b>	<b>R 0.553</b>	<b>R 0.580</b>	<b>R 0.608</b>
<b>Supplement Cost per Litre</b>	<b>R 2.257</b>	<b>R 2.166</b>	<b>R 2.075</b>	<b>R 1.983</b>	<b>R 1.891</b>
<b>Total Feed (Supplement+Pasture) Cost / Litre</b>	<b>R 2.752</b>	<b>R 2.691</b>	<b>R 2.629</b>	<b>R 2.563</b>	<b>R 2.498</b>
<b>Heifer &amp; 'Other' Total Feed Cost per Litre</b>	<b>R 0.622</b>	<b>R 0.639</b>	<b>R 0.656</b>	<b>R 0.672</b>	<b>R 0.690</b>
<b>Average Cost of All Consumed Feed (/tDM)</b>	<b>R 3,287</b>	<b>R 3,193</b>	<b>R 3,098</b>	<b>R 2,998</b>	<b>R 2,899</b>
<b>Pasture Cost (Per tDM)</b>	<b>R 2,516</b>	<b>R 2,442</b>	<b>R 2,373</b>	<b>R 2,305</b>	<b>R 2,246</b>
- Direct Pasture Cost (Per tDM)	R 1,199	R 1,154	R 1,112	R 1,071	R 1,036
- Variable Pasture Cost (Per tDM)	R 434	R 431	R 429	R 426	R 423
- Capital Pasture Cost (Per tDM)	R 883	R 857	R 833	R 808	R 787
Average Cost of All Supplements (/tDM Consumed)	R 3,822	R 3,808	R 3,793	R 3,778	R 3,766
<b>Forage Cost (/tDM Consumed incl.wastage)</b>	<b>R 2,495</b>	<b>R 2,493</b>	<b>R 2,490</b>	<b>R 2,487</b>	<b>R 2,484</b>
- Purchase/Production Forage Cost (/tDM)	R 1,397	R 1,396	R 1,395	R 1,395	R 1,394
- Homegrown Forage Cost (Per tDM)	R 1,500	R 1,500	R 1,500	R 1,500	R 1,500
- Imported Forage Cost (Per tDM)	R 2,046	R 2,046	R 2,046	R 2,046	R 2,046
- Variable Forage Cost (Per tDM)	R 457	R 453	R 448	R 443	R 438
- Capital Forage Cost (Per tDM)	R 224	R 227	R 231	R 235	R 240
Home Produced Forage as Percent of Total	96.1 %	96.2 %	96.4 %	96.4 %	96.5 %
<b>Concentrate Cost (/tDM Consumed incl.wastage)</b>	<b>R 4,611</b>	<b>R 4,589</b>	<b>R 4,567</b>	<b>R 4,546</b>	<b>R 4,525</b>
- Purchase/Production Concentrate Cost (/tDM)	R 4,338	R 4,315	R 4,292	R 4,269	R 4,247
- Variable Concentrate Cost (Per tDM)	R 114	R 113	R 112	R 111	R 110
- Capital Concentrate Cost (Per tDM)	R 68	R 70	R 73	R 76	R 79



**Operating Profit - Dairy**  
**South Africa Production Systems Analysis**  
**Increasing Pasture Percentage of Diet**



	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>REVENUE</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>
Manufacturing Milk Sales	16,920,180	15,965,312	15,142,961	14,446,723	13,792,419
Quota/Contract/Dividends for Milk	0	0	0	0	0
Livestock Sales	1,144,000	1,102,400	1,070,800	1,046,000	1,012,400
- Less Livestock Purchases	(17,500)	(17,500)	(17,500)	(17,500)	(17,500)
Other Revenue	50,000	50,000	50,000	50,000	50,000
<b>Total Operating Revenue</b>	<b>18,096,680</b>	<b>17,100,212</b>	<b>16,246,261</b>	<b>15,525,223</b>	<b>14,837,319</b>
<b>EXPENSES</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>
Administration (incl. professional fees)	187,600	187,600	187,600	187,600	187,600
Animal Health	627,120	576,812	532,393	493,317	456,464
Breeding & Herd Testing	277,380	255,475	236,151	219,176	203,168
Dairy Shed Expenses	159,795	150,838	143,129	136,609	130,481
Electricity	319,590	301,790	286,479	273,538	261,379
Feeds / Supplements (Total)	7,942,470	7,305,372	6,743,113	6,250,874	5,797,264
- Grazing / Support Area	154,970	154,970	154,970	154,970	154,970
- Cropping (green feed)	46,900	46,900	46,900	46,900	46,900
- Grains, Pellets & Concentrates	5,985,000	5,352,480	4,794,000	4,304,740	3,853,920
- Forages (incl. hay, silages, byproducts)	1,755,600	1,751,022	1,747,243	1,744,264	1,741,474
Fertiliser (Total)	777,200	777,200	777,200	777,200	777,200
- Nitrogen	495,800	495,800	495,800	495,800	495,800
- Phosphate & All Other Fertiliser	281,400	281,400	281,400	281,400	281,400
Freight	0	0	0	0	0
Irrigation	710,200	710,200	710,200	710,200	710,200
Pasture Maintenance & Renovation	274,700	274,700	274,700	274,700	274,700
Rates, Licenses, Levies & Insurance	221,100	221,100	221,100	221,100	221,100
Repairs & Maintenance	633,150	597,075	565,980	539,621	514,846
Vehicle Expenses (including fuel & oil)	814,050	763,961	720,519	683,331	648,346
Wages, Salaries & Employment Exp.	1,688,400	1,598,091	1,520,679	1,455,629	1,394,540
<b>Total Operating Expenses</b>	<b>14,632,755</b>	<b>13,720,214</b>	<b>12,919,243</b>	<b>12,222,895</b>	<b>11,577,288</b>
<b>OPERATING SURPLUS</b>	<b>3,463,925</b>	<b>3,379,998</b>	<b>3,327,018</b>	<b>3,302,328</b>	<b>3,260,031</b>
<b>ADJUSTMENTS</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>
+ Change in Livestock Numbers	0	0	0	0	0
+ Change in Feeds/Supplements on Hand	0	144,475	270,100	381,300	486,675
- Imputed Labour & Management	400,720	377,300	355,570	335,830	316,880
- Depreciation	795,960	742,632	696,089	655,855	617,971
+ Other Revenue Adjustments	0	0	0	0	0
- Other Expenses Adjustments	418,100	418,100	418,100	418,100	418,100
<b>Total Adjustments</b>	<b>(1,614,780)</b>	<b>(1,393,557)</b>	<b>(1,199,659)</b>	<b>(1,028,485)</b>	<b>(866,276)</b>
<b>OPERATING PROFIT/(LOSS)</b>	<b>1,849,145</b>	<b>1,986,441</b>	<b>2,127,359</b>	<b>2,273,843</b>	<b>2,393,755</b>



**Operating Profit Per Cow - Dairy**  
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	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>REVENUE</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>
Manufacturing Milk Sales	28,060	27,526	26,993	26,459	25,926
Quota/Contract/Dividends for Milk	0	0	0	0	0
Livestock Revenue	1,868	1,871	1,878	1,884	1,870
Other Revenue	83	86	89	92	94
<b>Gross Revenue</b>	<b>30,011</b>	<b>29,483</b>	<b>28,959</b>	<b>28,434</b>	<b>27,890</b>
<b>EXPENSES</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>	<b>R -</b>
Administration (incl. professional fees)	311	323	334	344	353
Animal Health	1,040	995	949	904	858
Breeding & Herd Testing	460	440	421	401	382
Dairy Shed Expenses	265	260	255	250	245
Electricity	530	520	511	501	491
Feeds / Supplements (Total)	13,865	13,067	12,284	11,516	10,768
- Grazing / Support Area	950	988	1,022	1,050	1,077
- Cropping (green feed)	78	81	84	86	88
- Grains, Pellets & Concentrates	9,925	9,228	8,545	7,884	7,244
- Forages (incl. hay, silages, byproducts)	2,911	2,770	2,633	2,496	2,359
Fertiliser (Total)	1,289	1,340	1,385	1,423	1,461
- Nitrogen	822	855	884	908	932
- Phosphate & All Other Fertiliser	467	485	502	515	529
Freight	0	0	0	0	0
Irrigation	1,178	1,224	1,266	1,301	1,335
Pasture Maintenance & Renovation	456	474	490	503	516
Rates, Licenses, Levies & Insurance	367	381	394	405	416
Repairs & Maintenance	1,050	1,029	1,009	988	968
Vehicle Expenses (including fuel & oil)	1,350	1,317	1,284	1,252	1,219
Management & Staff Expenses	3,465	3,406	3,344	3,281	3,217
- Wages, Salaries & Employment Exp.	2,800	2,755	2,711	2,666	2,621
- Imputed Labour & Management	665	651	634	615	596
Depreciation	1,320	1,280	1,241	1,201	1,162
<b>Gross Expenses</b>	<b>26,945</b>	<b>26,058</b>	<b>25,167</b>	<b>24,270</b>	<b>23,390</b>
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	24,960	24,127	23,293	22,454	21,633
Core per Cow Cost	5,485	5,395	5,299	5,198	5,096
<b>OPERATING PROFIT/(LOSS)</b>	<b>3,067</b>	<b>3,425</b>	<b>3,792</b>	<b>4,165</b>	<b>4,500</b>



**Operating Profit Per Hectare - Dairy**  
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	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
REVENUE	R -	R -	R -	R -	R -
Manufacturing Milk Sales	126,270	119,144	113,007	107,811	102,929
Quota/Contract/Dividends for Milk	0	0	0	0	0
Livestock Revenue	8,407	8,096	7,860	7,675	7,425
Other Revenue	373	373	373	373	373
<b>Gross Revenue</b>	<b>135,050</b>	<b>127,614</b>	<b>121,241</b>	<b>115,860</b>	<b>110,726</b>
EXPENSES	R -	R -	R -	R -	R -
Administration (incl. professional fees)	1,400	1,400	1,400	1,400	1,400
Animal Health	4,680	4,305	3,973	3,681	3,406
Breeding & Herd Testing	2,070	1,907	1,762	1,636	1,516
Dairy Shed Expenses	1,193	1,126	1,068	1,019	974
Electricity	2,385	2,252	2,138	2,041	1,951
Feeds / Supplements (Total)	62,392	56,560	51,426	46,923	42,751
- Grazing / Support Area	4,277	4,277	4,277	4,277	4,277
- Cropping (green feed)	350	350	350	350	350
- Grains, Pellets & Concentrates	44,664	39,944	35,776	32,125	28,761
- Forages (incl. hay, silages, byproducts)	13,101	11,989	11,023	10,171	9,364
Fertiliser (Total)	5,800	5,800	5,800	5,800	5,800
- Nitrogen	3,700	3,700	3,700	3,700	3,700
- Phosphate & All Other Fertiliser	2,100	2,100	2,100	2,100	2,100
Freight	0	0	0	0	0
Irrigation	5,300	5,300	5,300	5,300	5,300
Pasture Maintenance & Renovation	2,050	2,050	2,050	2,050	2,050
Rates, Licenses, Levies & Insurance	1,650	1,650	1,650	1,650	1,650
Repairs & Maintenance	4,725	4,456	4,224	4,027	3,842
Vehicle Expenses (including fuel & oil)	6,075	5,701	5,377	5,099	4,838
Management & Staff Expenses	15,590	14,742	14,002	13,369	12,772
- Wages, Salaries & Employment Exp.	12,600	11,926	11,348	10,863	10,407
- Imputed Labour & Management	2,990	2,816	2,654	2,506	2,365
Depreciation	5,940	5,542	5,195	4,894	4,612
<b>Gross Expenses</b>	<b>121,250</b>	<b>112,789</b>	<b>105,365</b>	<b>98,891</b>	<b>92,862</b>
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	112,320	104,432	97,517	91,490	85,886
Core per Hectare Cost	14,210	13,764	13,377	13,046	12,733
<b>OPERATING PROFIT/(LOSS)</b>	<b>13,800</b>	<b>14,824</b>	<b>15,876</b>	<b>16,969</b>	<b>17,864</b>



**Operating Profit Per Litre (c/l ECM)**  
**South Africa Production Systems Analysis**  
**Increasing Pasture Percentage of Diet**



	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>REVENUE (cents/litre ECM)</b>					
Manufacturing Milk Sales	454.70	454.70	454.70	454.70	454.70
Quota/Contract/Dividends for Milk	0.00	0.00	0.00	0.00	0.00
Livestock Revenue	30.27	30.90	31.63	32.37	32.80
Other Revenue	1.34	1.42	1.50	1.57	1.65
<b>Gross Revenue</b>	<b>486.32</b>	<b>487.02</b>	<b>487.83</b>	<b>488.64</b>	<b>489.15</b>
<b>EXPENSES (cents/litre ECM)</b>					
Administration (incl. professional fees)	5.04	5.34	5.63	5.90	6.18
Animal Health	16.85	16.43	15.99	15.53	15.05
Breeding & Herd Testing	7.45	7.28	7.09	6.90	6.70
Dairy Shed Expenses	4.29	4.30	4.30	4.30	4.30
Electricity	8.59	8.60	8.60	8.61	8.62
Feeds / Supplements (Total)	224.68	215.85	206.92	197.90	188.86
- Grazing / Support Area	15.40	16.32	17.21	18.04	18.89
- Cropping (green feed)	1.26	1.34	1.41	1.48	1.55
- Grains, Pellets & Concentrates	160.84	152.44	143.95	135.49	127.05
- Forages (incl. hay, silages, byproducts)	47.18	45.76	44.35	42.90	41.37
Fertiliser (Total)	20.89	22.14	23.34	24.46	25.62
- Nitrogen	13.32	14.12	14.89	15.60	16.35
- Phosphate & All Other Fertiliser	7.56	8.01	8.45	8.86	9.28
Freight	0.00	0.00	0.00	0.00	0.00
Irrigation	19.09	20.23	21.33	22.35	23.41
Pasture Maintenance & Renovation	7.38	7.82	8.25	8.65	9.06
Rates, Licenses, Levies & Insurance	5.94	6.30	6.64	6.96	7.29
Repairs & Maintenance	17.01	17.00	16.99	16.98	16.97
Vehicle Expenses (including fuel & oil)	21.88	21.76	21.64	21.51	21.37
Management & Staff Expenses	56.14	56.26	56.34	56.38	56.42
- Wages, Salaries & Employment Exp.	45.37	45.51	45.66	45.81	45.97
- Imputed Labour & Management	10.77	10.75	10.68	10.57	10.45
Depreciation	21.39	21.15	20.90	20.64	20.37
<b>Gross Expenses</b>	<b>436.62</b>	<b>430.45</b>	<b>423.95</b>	<b>417.08</b>	<b>410.23</b>
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	404.46	398.55	392.37	385.86	379.41
Core Cost Structure per Litre (ECM)	196.20	197.90	199.43	200.73	202.05
<b>OPERATING PROFIT/(LOSS)</b>	<b>49.69</b>	<b>56.57</b>	<b>63.88</b>	<b>71.57</b>	<b>78.92</b>



**Operating Profit Per Litre (c/l)**  
**South Africa Production Systems Analysis**  
**Increasing Pasture Percentage of Diet**



	Base Year 41%	Model #1 45%	Model #2 49%	Model #3 53%	Model #4 57%
<b>REVENUE (cents/litre)</b>					
Manufacturing Milk Sales	460.00	460.00	460.00	460.00	460.00
Quota/Contract/Dividends for Milk	0.00	0.00	0.00	0.00	0.00
Livestock Revenue	30.63	31.26	32.00	32.75	33.18
Other Revenue	1.36	1.44	1.52	1.59	1.67
<b>Gross Revenue</b>	<b>491.98</b>	<b>492.70</b>	<b>493.52</b>	<b>494.34</b>	<b>494.85</b>
<b>EXPENSES (cents/litre)</b>					
Administration (incl. professional fees)	5.10	5.41	5.70	5.97	6.26
Animal Health	17.05	16.62	16.17	15.71	15.22
Breeding & Herd Testing	7.54	7.36	7.17	6.98	6.78
Dairy Shed Expenses	4.34	4.35	4.35	4.35	4.35
Electricity	8.69	8.70	8.70	8.71	8.72
Feeds / Supplements (Total)	227.29	218.37	209.33	200.21	191.06
- Grazing / Support Area	15.58	16.51	17.41	18.25	19.11
- Cropping (green feed)	1.28	1.35	1.42	1.49	1.56
- Grains, Pellets & Concentrates	162.71	154.22	145.63	137.07	128.53
- Forages (incl. hay, silages, byproducts)	47.73	46.29	44.87	43.40	41.85
Fertiliser (Total)	21.13	22.39	23.61	24.75	25.92
- Nitrogen	13.48	14.29	15.06	15.79	16.54
- Phosphate & All Other Fertiliser	7.65	8.11	8.55	8.96	9.39
Freight	0.00	0.00	0.00	0.00	0.00
Irrigation	19.31	20.46	21.57	22.61	23.69
Pasture Maintenance & Renovation	7.47	7.91	8.34	8.75	9.16
Rates, Licenses, Levies & Insurance	6.01	6.37	6.72	7.04	7.37
Repairs & Maintenance	17.21	17.20	17.19	17.18	17.17
Vehicle Expenses (including fuel & oil)	22.13	22.01	21.89	21.76	21.62
Management & Staff Expenses	56.80	56.92	57.00	57.04	57.08
- Wages, Salaries & Employment Exp.	45.90	46.04	46.19	46.35	46.51
- Imputed Labour & Management	10.89	10.87	10.80	10.69	10.57
Depreciation	21.64	21.40	21.15	20.88	20.61
<b>Gross Expenses</b>	<b>441.71</b>	<b>435.47</b>	<b>428.89</b>	<b>421.94</b>	<b>415.01</b>
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	409.18	403.20	396.95	390.36	383.83
Core Cost Structure per Litre	198.49	200.21	201.76	203.07	204.41
<b>OPERATING PROFIT/(LOSS)</b>	<b>50.27</b>	<b>57.23</b>	<b>64.62</b>	<b>72.40</b>	<b>79.84</b>

