

2. National dairy statistics

A. Industry statistics

i) Production

- **Over 1.2 billion kilograms of milksolids processed**

In 2004/05, dairy companies processed 14.1 billion litres of milk and 1.21 billion kilograms of milksolids (see Table 2.1). At 1,213 million kilograms, total milksolids processed represents a 3.3% decrease from the 1,254 million kilograms processed in the previous season.

Table 2.1 **Summary of milk production statistics since 1998/99**

Season	Milk processed (million litres)	Milkfat processed (million kgs)	Protein processed (million kgs)	Milksolids processed (million kgs)
1998/99	10,563	503	377	880
1999/00	11,630	560	421	981
2000/01	12,925	626	470	1,096
2001/02	13,607	657	495	1,152
2002/03	13,906	676	515	1,191
2003/04	14,599	716	538	1,254
2004/05	14,103	694	519	1,213

Note: Prior to Dairy Statistics 2002/03, Table 2.1 consisted of milk production statistics that were processed into export products (i.e., town milk supply was excluded). These statistics on milk, milkfat, protein and milksolids processed were provided by the New Zealand Dairy Board and are now no longer available. Consequently, Table 2.1 now includes all milk processed by New Zealand dairy companies, including milk for the domestic market.

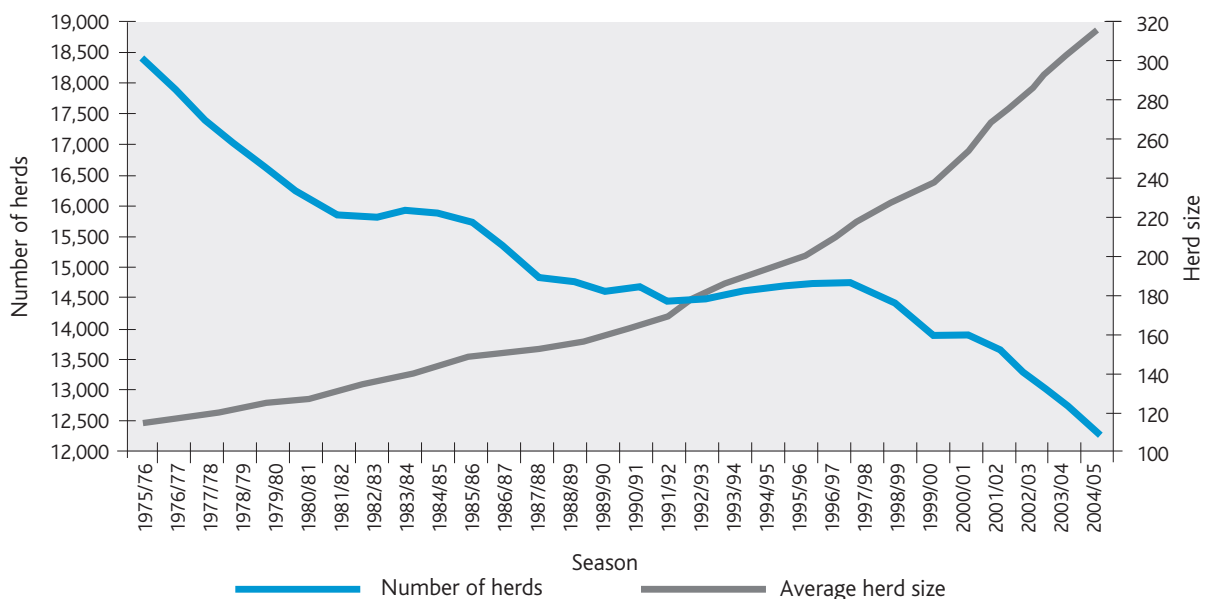
ii) Population

- **Number of herds continues to decline**
- **Average herd size now 315**
- **Minimal increase of 16,000 in cow numbers**

Sharp reductions in herd numbers followed by periods of stability or slight increases are characteristic of the long-term trend (Graph 2.1). The total number of herds in the 2004/05 season dropped by 480, to 12,271, compared with the previous season.

The average herd size increased to 315 in 2004/05, continuing the consistent upward trend for the last 30 seasons. The average herd size has more than doubled in the last twenty years.

Graph 2.1 **Trend in the number of herds and average herd size for the last 30 seasons**



The total cow population increased slightly in the 2004/05 season to 3.868 million (Table 2.2), an increase of 0.4%, compared with an increase of 3% in the previous season. Average effective hectares increased to 115 hectares. An average of 2.78 cows per hectare is the highest recorded. Total effective hectares (runoff excluded) were 1.41 million.

Table 2.2 *Summary of herd statistics since 1974/75*

Season	Herds	Total cows	Total effective hectares	Average herd size	Average effective hectares ^a	Average cows per hectare ^a
1974/75	18,540	2,079,886	–	112	–	–
1975/76	18,442	2,091,950	–	113	–	–
1976/77	17,924	2,074,443	–	116	–	–
1977/78	17,363	2,052,624	–	118	–	–
1978/79	16,907	2,039,902	–	121	–	–
1979/80	16,506	2,045,808	–	124	–	–
1980/81	16,089	2,027,096	–	126	–	–
1981/82	15,821	2,060,898	–	130	63	2.10
1982/83	15,816	2,128,199	–	135	64	2.20
1983/84	15,932	2,209,725	–	139	65	2.20
1984/85	15,881	2,280,273	–	144	64	2.40
1985/86	15,753	2,321,012	–	147	64	2.40
1986/87	15,315	2,281,849	–	149	65	2.40
1987/88	14,818	2,236,290	–	151	65	2.40
1988/89	14,744	2,269,073	–	154	66	2.40
1989/90	14,595	2,313,822	–	159	67	2.40
1990/91	14,685	2,402,145	–	164	70	2.40
1991/92	14,452	2,438,641	–	169	–	–
1992/93	14,458	2,603,049	–	180	74	2.50
1993/94	14,597	2,736,452	–	188	77	2.50
1994/95	14,649	2,830,977	–	193	80	2.48
1995/96	14,736	2,935,759	–	199	82	2.50
1996/97	14,741	3,064,523	–	208	86	2.50
1997/98	14,673	3,222,591	–	220	87	2.60
1998/99	14,362	3,289,319	–	229	91	2.70
1999/00	13,861	3,269,362	–	236	93	2.67
2000/01	13,892	3,485,883	1,329,173	251	96	2.66
2001/02	13,649	3,692,703	1,404,930	271	103	2.67
2002/03	13,140	3,740,637	1,463,281	285	111	2.61
2003/04	12,751	3,851,302	1,421,147	302	111	2.75
2004/05	12,271	3,867,659	1,411,594	315	115	2.78

– Not available

^a Average effective hectares and average cows per hectare for 1981/82 to 1990/91 are based on factory supply herds only.

Note: The number of cows used to calculate the average herd size since 1992/93 includes all cows lactating in that season, whereas in earlier years the number of cows used to produce the average herd size was based on those cows lactating on 31 December. This change in method has had a small effect on reported cow numbers.



B. Herd production statistics

• Production per hectare and per cow down on last season

Herd production has typically increased since 1992/93 (Table 2.3). An exception was evident in 1998/99, where production dropped markedly due to unfavourable weather conditions. Average milksolids per effective hectare (862 kg) was lower compared with the previous season (889 kg). Production per cow also decreased in 2004/05 to an average of 308 kg milksolids (comprising 176 kg milkfat and 132 kg protein). As in 1998/99, these decreases were probably due to unfavourable weather conditions.

Table 2.3 Summary of herd production since 1974/75

Season	Average litres per herd	Average kg milkfat per herd	Average kg protein per herd	Average kg milksolids per herd	Average kg milkfat per effective hectare	Average kg protein per effective hectare	Average kg milksolids per effective hectare	Average litres per cow	Average kg milkfat per cow	Average kg protein per cow	Average kg milksolids per cow
1974/75 ^a	–	14,400	–	–	–	–	–	–	128	–	–
1975/76 ^a	–	15,700	–	–	–	–	–	–	137	–	–
1976/77 ^a	–	16,600	–	–	–	–	–	–	143	–	–
1977/78 ^a	–	15,700	–	–	–	–	–	–	131	–	–
1978/79 ^a	–	17,500	–	–	–	–	–	–	142	–	–
1979/80 ^a	–	19,000	–	–	–	–	–	–	151	–	–
1980/81 ^a	–	18,864	–	–	–	–	–	–	147	–	–
1981/82 ^a	–	19,090	–	–	310	–	–	–	144	–	–
1982/83 ^a	–	19,600	–	–	312	–	–	–	143	–	–
1983/84 ^a	–	21,618	–	–	345	–	–	–	154	–	–
1984/85 ^a	–	22,190	–	–	359	–	–	–	152	–	–
1985/86 ^a	–	23,489	–	–	379	–	–	–	157	–	–
1986/87 ^a	–	20,885	–	–	331	–	–	–	138	–	–
1987/88 ^a	–	23,500	–	–	374	–	–	–	154	–	–
1988/89 ^a	–	22,442	–	–	340	–	–	–	143	–	–
1989/90 ^a	–	23,578	–	–	352	–	–	–	147	–	–
1990/91 ^a	–	24,495	–	–	351	–	–	–	148	–	–
1991/92 ^b	–	26,567	–	–	–	–	–	–	157	–	–
1992/93	554,040	26,982	20,138	47,120	374	279	653	–	148	111	259
1993/94	618,139	30,220	22,458	52,678	407	301	708	–	160	119	278
1994/95	614,203	29,886	22,117	52,002	386	285	671	–	156	115	271
1995/96	663,248	32,050	23,827	55,877	405	300	705	–	163	120	283
1996/97	728,874	35,436	26,387	61,823	425	316	741	–	173	128	301
1997/98	752,399	36,383	26,984	63,367	430	318	748	–	168	124	292
1998/99	735,544	35,047	26,254	61,301	392	292	684	–	147	109	256
1999/00	839,066	40,365	30,396	70,761	439	329	768	–	165	123	288
2000/01	930,047	45,063	33,850	78,914	472	353	825	–	177	133	310
2001/02	996,904	48,137	36,300	84,436	471	353	824	–	175	132	307
2002/03	1,058,307	51,447	39,174	90,621	471	357	828	–	179	136	315
2003/04	1,144,938	56,150	42,171	98,321	509	380	889	3,737	184	138	322
2004/05	1,149,262	56,520	42,305	98,825	494	368	862	3,574	176	132	308

– Not available

^a Figures prior to 1991/92 exclude town milk herds

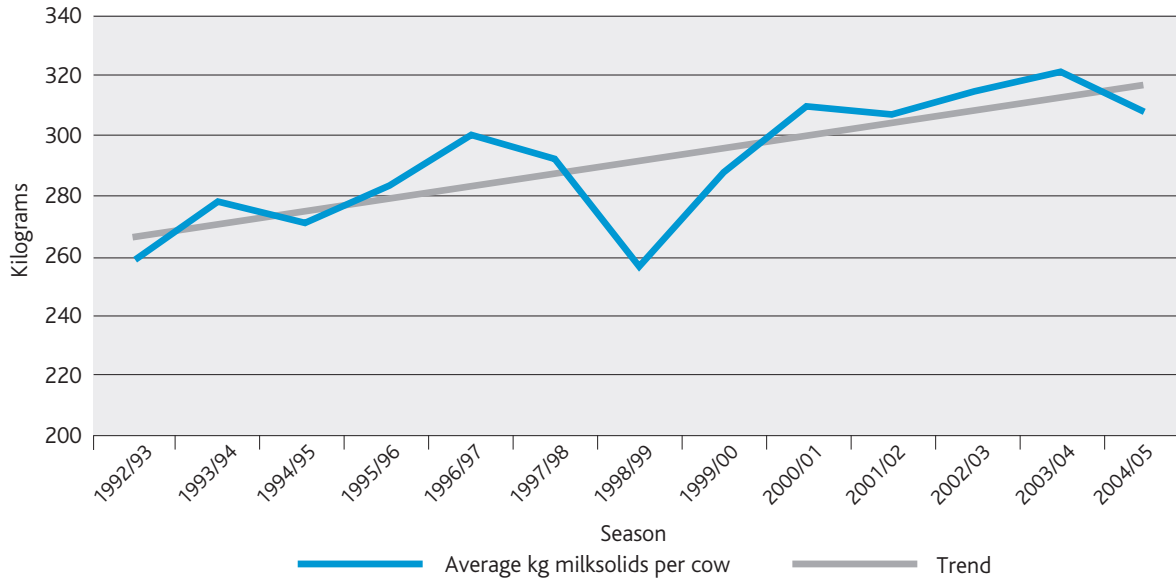
^b 1991/92 figures include some town milk herds



i) Production per cow

The trend of increased milksolids production per cow over the last several years (Graph 2.2) is due to genetic gain and improvements in farm management. These improvements from season to season are masked by the considerable effect of the weather on each season's actual production. For example, unfavourable weather conditions in 2004/05 and 1998/99 caused production per cow to fall, particularly for the 1998/99 season.

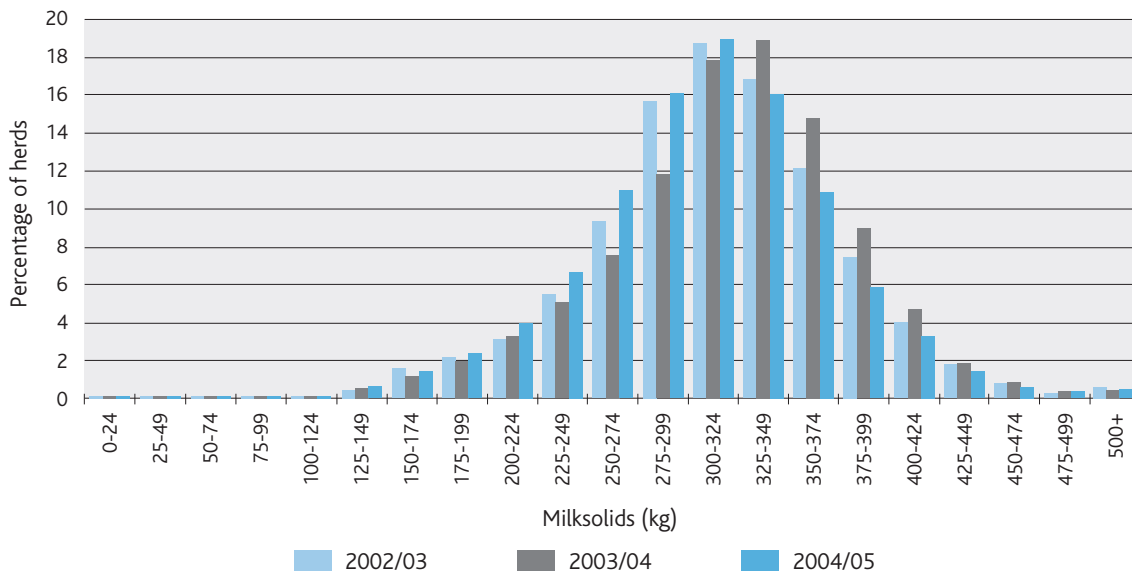
Graph 2.2 *Trend in milksolids production per cow since 1992/93*



Production per cow varies considerably from farm to farm. The variation is caused by many factors, including geographic location, stocking rate, genetic merit of the herd and farm management practice. Graph 2.3 shows that milksolid production for 2004/05 showed greater similarity to the 2002/03 season than the 2003/04 season.

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Graph 2.3 *Distribution of herds by milksolids production per cow for the last three seasons*



ii) Herd size distribution

- 14% of herds have 500 or more cows
- Herds between 650 and 749 cows have highest production per cow

Eighteen percent (2,161) of herds have between 200 and 249 cows (see Table 2.4). Sixty-seven percent of all herds have between 100 and 349 cows. In 2004/05, 4,969 herds (40.5%) had 300 or more cows, and 1,763 (14.4%) had 500 or more cows. Average milkfat, protein and milksolids per cow by herd size are also included in Table 2.4. Average milksolids per cow varies between 183 kg (herds with 10-49 cows) and 334 kg (herds with 650-749 cows).

Table 2.4 Average production per cow by herd size in 2004/05

Herd size	Number of herds	Percentage of herds	Number of cows	Percentage of cows	Average kg milkfat per cow	Average kg protein per cow	Average kg milksolids per cow
10-49	40	0.3	1,648	0.0	105	78	183
50-99	404	3.3	30,931	0.8	144	108	252
100-149	1,246	10.2	155,896	4.0	166	124	290
150-199	2,076	16.9	357,792	9.3	174	129	303
200-249	2,161	17.6	477,003	12.3	178	132	310
250-299	1,375	11.2	370,082	9.6	179	133	312
300-349	1,303	10.6	414,834	10.7	180	134	313
350-399	750	6.1	275,502	7.1	181	135	316
400-449	675	5.5	281,465	7.3	180	134	314
450-499	478	3.9	222,706	5.8	183	138	321
500-549	397	3.2	205,038	5.3	185	139	324
550-599	246	2.0	139,620	3.6	185	139	324
600-649	251	2.0	154,062	4.0	185	140	325
650-699	167	1.4	110,976	2.9	190	144	334
700-749	132	1.1	94,371	2.4	190	144	334
750-799	93	0.8	70,972	1.8	180	136	315
800-849	93	0.8	75,690	2.0	181	137	318
850-899	53	0.4	45,803	1.2	186	142	328
900-949	62	0.5	56,507	1.5	186	141	327
950-999	36	0.3	34,543	0.9	175	133	308
1000+	233	1.9	292,218	7.6	174	133	307
Total/Avg	12,271		3,867,659		176	132	308

The herd size distribution presented in Graph 2.4 shows a steady increase in larger herds (300+ cows) and a decrease in herds with fewer than 200 cows over the last three seasons. The most common herd size has now shifted from 150 – 199 cows prior to 2004/05, to 200 – 249 cows.

Graph 2.4 Herd size distribution for the last three seasons

