

2. National dairy statistics

A. Industry statistics

i) Production

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

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.

In 2002/03, dairy companies processed almost 14 billion litres of milk and close to 1.2 billion kilograms of milksolids (see Table 2.1). At 1,191 million kilograms, total milksolids processed represents a 3.4% increase from the 1,152 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

Note: All figures now include milk for the domestic market.

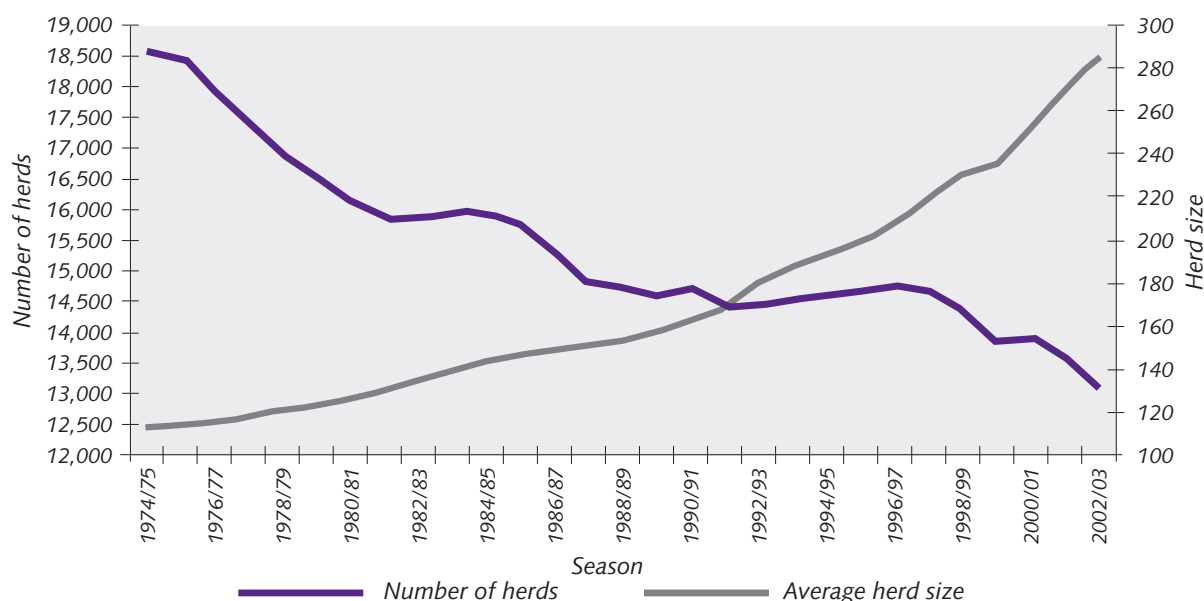
ii) Population

- **Sharp decrease in herd numbers**
- **Continued increase in average herd size**
- **Small increase 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 2002/03 season dropped by 509, to 13,140, compared with the previous season.

The average herd size increased to 285 in 2002/03, continuing the consistent upward trend since 1974/75. 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 since 1974/75



National dairy statistics – Industry statistics – Population

The total cow population increased in the 2002/03 season to 3.741 million (Table 2.2), an increase of only 1.3%, compared with increases of around 6% in previous seasons. Average effective hectares increased from 103 in 2001/02 to 111 in 2002/03; consistent with the upward trend since the early 1980s. An average of 2.61 cows per hectare is slightly lower than in previous seasons. Total effective hectares (runoff excluded) were 1.46 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

– Not available

^a Average effective hectares and average cows per hectare for 1981/82 to 1990/91 is 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. Farm production statistics

- Production per hectare and per cow slightly up on last season

Farm 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 farm increased in 2002/03, consistent with increasing average farm size. Average milksolids per effective hectare (828 kg) was slightly up compared with the previous season (824 kg). Production per cow also increased in 2002/03 to an average of 315 kg milksolids (comprising 179 kg milkfat and 136 kg protein).

Table 2.3 Summary of farm production since 1974/75

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

– Not available

^a 1991/92 figures include some town milk herds

^b 1992/93 figures onwards include all town milk herds

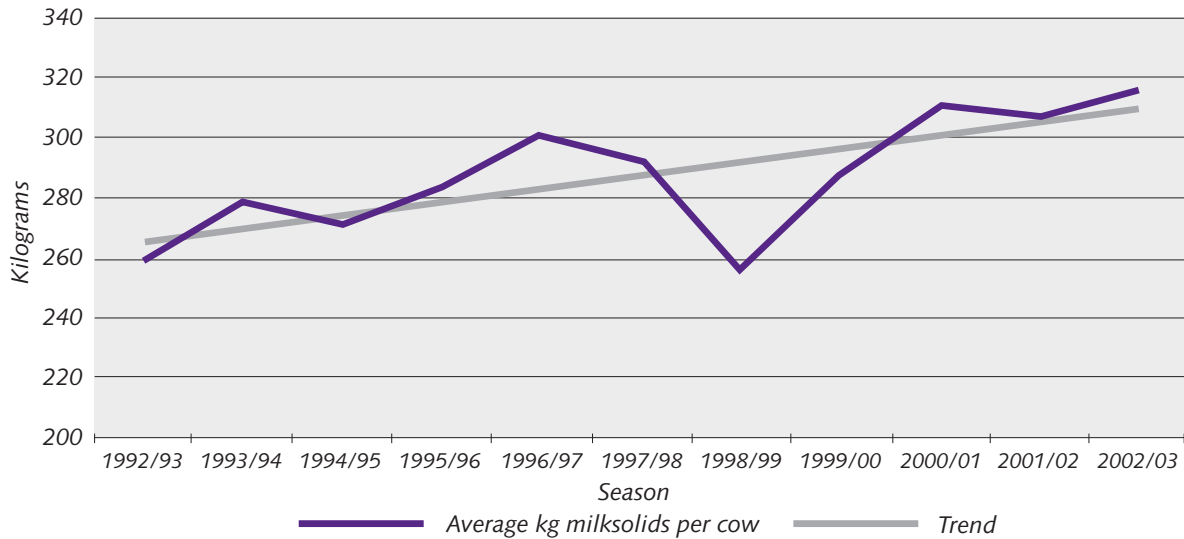


Farm production statistics – Production per cow

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 1998/99 caused production per cow to fall to its lowest level since 1992/93.

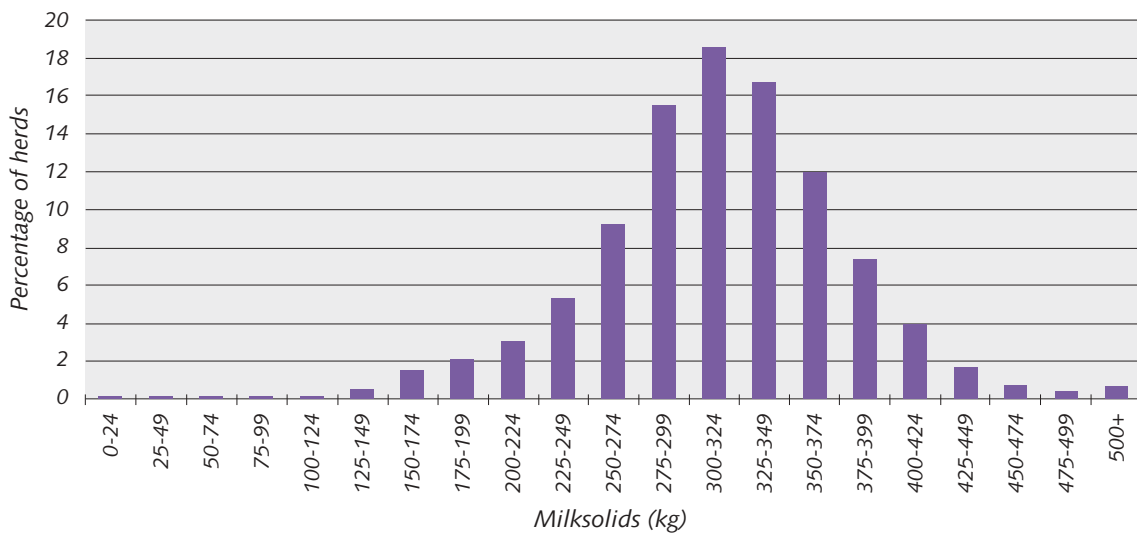
Graph 2.2 Trend in milksolids production per cow since 1992/93



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. About 19% of herds produced between 300 and 324 kg of milksolids and 72% produced between 250 and 374 kg of milksolids (Graph 2.3).

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Graph 2.3 Distribution of herds by milksolids production per cow in 2002/03



ii) Herd size distribution

- 10% of herds have 500 or more cows
- Herds with between 550 and 599 cows have highest production per cow

Nineteen percent (2,549) of herds have between 150 and 199 cows (see Table 2.4). Seventy-one percent of all herds have between 100 and 350 cows. In 2002/03, 4,238 herds (32.2%) had 300 or more cows, and 1,360 (10.4%) 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 210 kg (herds with 10-49 cows) and 333 kg (herds with 550-599 cows).

Table 2.4 Average production per cow by herd size in 2002/03

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	80	0.6	3,239	0.1	119	91	210
50-99	624	4.7	49,608	1.3	159	120	280
100-149	1,876	14.3	240,322	6.4	173	131	304
150-199	2,549	19.4	445,425	11.9	179	135	315
200-249	2,388	18.2	534,349	14.3	184	139	323
250-299	1,385	10.5	382,790	10.2	184	139	324
300-349	1,145	8.7	370,705	9.9	183	139	322
350-399	669	5.1	250,047	6.7	181	137	318
400-449	600	4.6	252,926	6.8	182	139	321
450-499	464	3.5	220,189	5.9	181	139	320
500-549	269	2.0	141,098	3.8	183	141	324
550-599	257	2.0	147,478	3.9	188	145	333
600-649	157	1.2	97,413	2.6	185	143	327
650-699	156	1.2	105,098	2.8	182	141	323
700-749	77	0.6	55,804	1.5	183	141	324
750-799	81	0.6	62,551	1.7	179	139	318
800-849	57	0.4	46,561	1.2	186	144	330
850-899	68	0.5	58,859	1.6	168	131	299
900-949	34	0.3	31,113	0.8	181	139	319
950-999	49	0.4	47,097	1.3	172	133	305
1000+	155	1.2	197,965	5.3	173	135	307
Total/Avg	13,140		3,740,637		179	136	315

The herd size distribution presented in Graph 2.4 shows a steady increase in larger herds (350+ cows) and a decrease in herds with fewer than 200 cows over the last three seasons. Despite dwindling numbers of herds with fewer than 200 cows, the most common herds continue to range between 150 and 199 cows, although the number of herds in this range is far less pronounced than two seasons ago.

Graph 2.4 Herd size distribution for the last three seasons

