

## 2. National dairy statistics

### A. Industry statistics

#### i) Production

- Record production in 1999/00
- 14% increase in milksolids

The statistics on milk, milkfat, protein and milksolids processed (Table 2.1) are based on figures provided by dairy companies to the New Zealand Dairy Board. These figures do not include town milk supply.

In 1999/00, seven co-operatively owned dairy companies processed 970 million kilograms of milksolids from seasonal supply units into products predominantly for export. Seven town milk dairy companies processed milk primarily for domestic liquid milk consumption.

At 970 million kilograms, total milksolids processed into export products in 1999/00 represented a 14% increase from the 850 million kilograms in 1998/99.

**Table 2.1: Summary of milk production statistics since 1974/75**

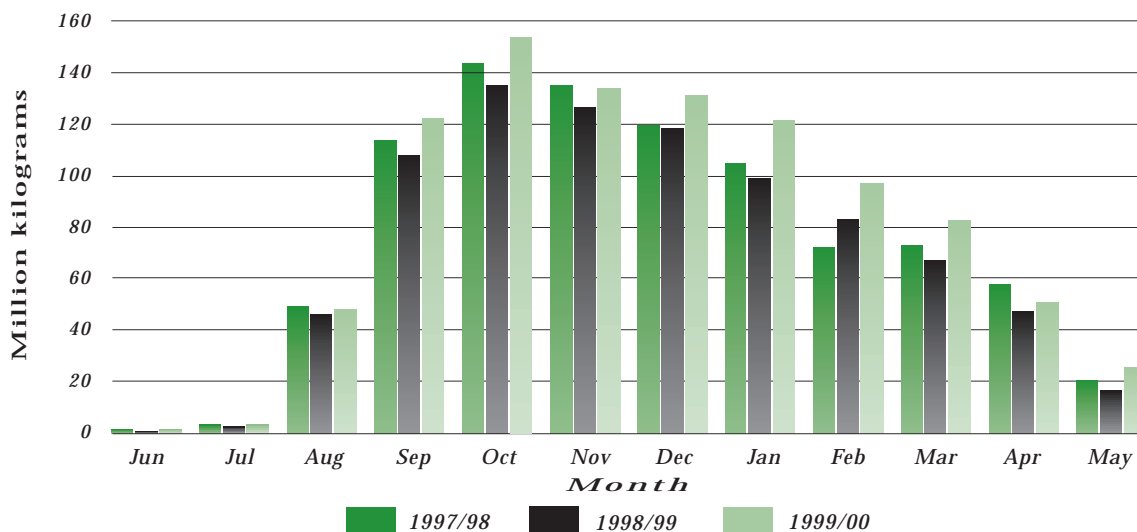
Season	Milk processed (million litres)	Milkfat processed (million kgs)	Protein processed (million kgs)	Milksolids processed (million kgs)
1974/75	5,222	244	181	425
1975/76	5,403	268	198	466
1976/77	5,775	275	204	479
1977/78	5,238	251	186	437
1978/79	5,655	274	203	477
1979/80	5,997	291	215	506
1980/81	5,868	282	209	491
1981/82	5,979	282	209	491
1982/83	6,096	290	214	505
1983/84	6,733	324	239	564
1984/85	6,965	332	245	578
1985/86	7,326	350	257	609
1986/87	6,385	301	222	524
1987/88	6,921	333	245	579
1988/89	6,533	311	237	541
1989/90	6,868	330	242	572
1990/91	7,077	343	254	599
1991/92	7,454	365	270	637
1992/93	7,629	373	277	651
1993/94	8,603	423	313	736
1994/95	8,633	422	311	733
1995/96	9,325	452	335	788
1996/97	10,339	506	375	880
1997/98	10,651	513	378	891
1998/99	10,168	486	363	850
1999/00	11,480	554	416	970

NOTE: Protein figures for 1974/75 to 1981/82 and milksolids figures for 1974/75 to 1990/91 are derived from milkfat figures



Comparing the 1999/00 season milksolids curve to the previous two seasons (Graph 2.1), the 1999/00 season production was higher than in the previous two seasons. Consistent with previous seasons, production peaked in October and consistently maintained a higher level than in the previous season, resulting in record production.

**Graph 2.1: Seasonal trend in total milksolids processed**



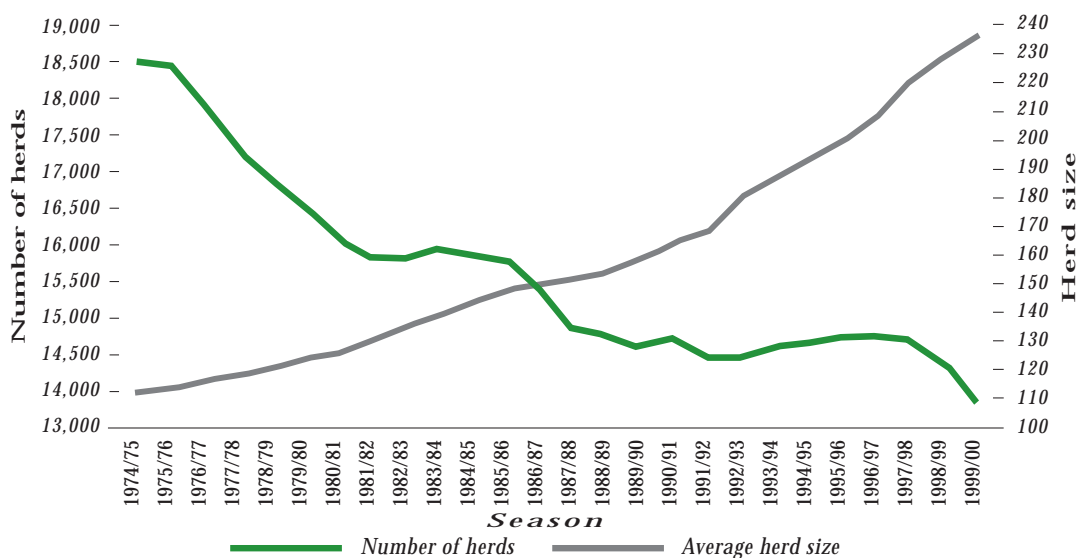
**ii) Population**

- *Decrease in herd numbers*
- *Increase in average herd size*
- *Slight decrease in cow numbers*

Total herd numbers decreased in the 1999/00 season by 501 to 13,861, caused by amalgamations of farms as well as cessation of supply. The number of herds increased slightly between 1991/92 and 1997/98, however the historical decline resumed again after that. (Graph 2.2)

The average herd size increased to 236 in 1999/00, continuing the consistent upward trend since 1974/75. The average herd size is now double that recorded for the 1977/78 season.

**Graph 2.2: Trend in the number of herds and average herd size since 1974/75**



The total cow population decreased 0.6% in the 1999/00 season to 3.269 million (Table 2.2), from 3.289 million cows in 1998/99. Average effective hectares and average cows per hectare increased in 1999/00, consistent with the upward trend since 1981/82.

The number of cows used to calculate the average herd size since 1992/93 includes all cows which lactated 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.

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

Season	Herds	Total cows	Average herd size	Average effective hectares *	Average cows per hectare
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	2.1
1982/83	15,816	2,128,199	135	64	2.2
1983/84	15,932	2,209,725	139	65	2.2
1984/85	15,881	2,280,273	144	64	2.4
1985/86	15,753	2,321,012	147	64	2.4
1986/87	15,315	2,281,849	149	65	2.4
1987/88	14,818	2,236,290	151	65	2.4
1988/89	14,744	2,269,073	154	66	2.4
1989/90	14,595	2,313,822	159	67	2.4
1990/91	14,685	2,402,145	164	70	2.4
1991/92	14,452	2,438,641	169	–	–
1992/93	14,458	2,603,049	180	74	2.5
1993/94	14,597	2,736,452	188	77	2.5
1994/95	14,649	2,830,977	193	80	2.5
1995/96	14,736	2,935,759	199	82	2.5
1996/97	14,741	3,064,523	208	86	2.5
1997/98	14,673	3,222,591	220	87	2.6
1998/99	14,362	3,289,319	229	91	2.7
1999/00	13,861	3,269,362	236	93	2.7

– Not available

\* Average effective hectares and average cows per hectare for 1981/82 to 1990/91 is based on factory supply herds only



## B. Farm production statistics

- *Production per farm and per hectare increases*
- *Milkfat and protein production per cow return to 1997/98 levels*

Farm production has typically increased since 1992/93 (Table 2.3). An exception was evident in 1998/99 where production dropped markedly. Average milkfat and protein per farm increased in 1999/00, consistent with increasing farm size. Average milkfat and protein per effective hectare increased to record levels. Production per cow increased in 1999/00 to an average of 165kg milkfat and 123kg of protein – similar to 1997/98 figures.

**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 milkfat per effective hectare	Average kg protein per effective hectare	Average kg milkfat per cow	Average kg protein 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*	–	26,567	–	–	–	157	–
1992/93**	554,040	26,982	20,138	374	279	148	111
1993/94**	618,139	30,220	22,458	407	301	160	119
1994/95**	614,203	29,886	22,117	386	285	156	115
1995/96**	663,248	32,050	23,827	405	300	163	120
1996/97**	728,874	35,436	26,387	425	316	173	128
1997/98**	752,399	36,383	26,984	430	318	168	124
1998/99**	735,544	35,047	26,254	392	292	147	109
1999/00**	839,066	40,365	30,396	439	329	165	123

– not available

\* 1991/92 figures include some town milk herds

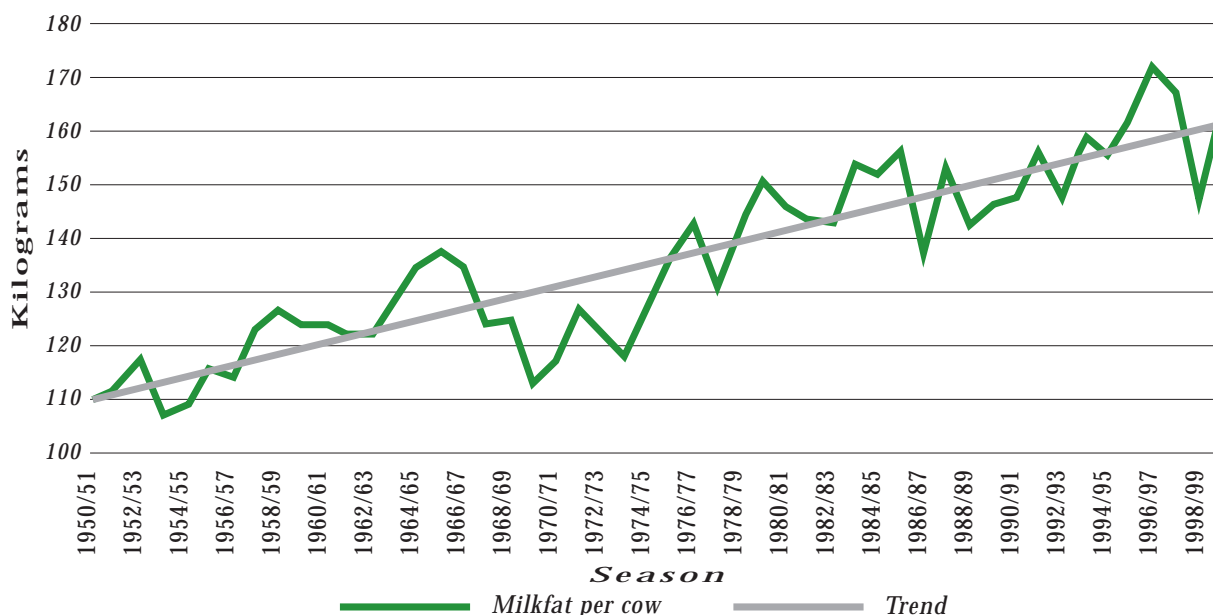
\*\* 1992/93 to 1999/00 figures include all town milk herds



**i) Production per cow**

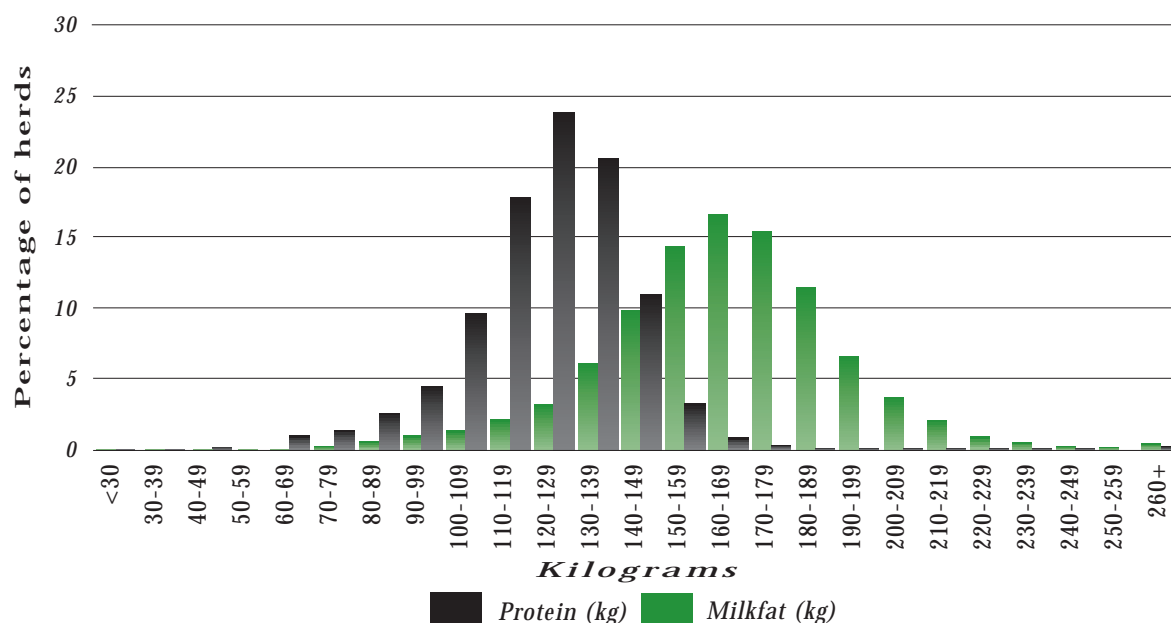
The trend of increased production per cow over the last 49 years (Graph 2.3) is due to genetic gain and improvements in farm management. These improvements from season to season are masked by the considerable effect of the weather on each season's actual production. For example, unfavourable weather conditions in 1986/87 caused production per cow to fall to its lowest level since 1977/78. It also influenced the decrease in production per cow for the 1998/99 season.

**Graph 2.3: Trend in milkfat production per cow since 1950/51**



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. The distribution of herds by milkfat and protein production per cow is shown in Graph 2.4.

**Graph 2.4: Distribution of herds by milkfat and protein production per cow in 1999/00**



ii) Herd size distribution

- 20.1% of herds have 300 or more cows
- 46.3% of all herds have between 150 and 249 cows

The average dairy herd size in 1999/00 was 236 cows. The number of herds with 300 or more cows has been increasing since 1970/71, except for a minimal decrease in 1998/99 (Table 2.4). In 1999/00, 2,785 herds had 300 or more cows or 20.1% of all herds.

**Table 2.4: Herds with 300 or more cows**

Season	1980/81	1990/91	1995/96	1996/97	1997/98	1998/99	1999/00
Percentage of total herds	1.5	6.5	14.3	16.3	18.6	18.2	20.1

The herd size distribution presented in Graph 2.5 shows that the most common herd sizes are between 150 and 199 cows.

**Graph 2.5: Herd size distribution in 1999/00**

