

Although the average production position over the total cows in the Dominion can be regarded as reasonably satisfactory, a percentage of the cows milked should be culled on a production basis. An estimate of the number of cows falling within prescribed production groups has been made by the Department of Agriculture, the calculation being based on herd-testing records, but applying to all cows in the Dominion.

18. Distribution of Total Cows based on Average Production :

Production Range (Pounds of Butterfat per Cow).					Percentage Total Cows represented.	Average Production per Cow.	Percentage New Zealand Total Butterfat represented.
						lb.	
Under 100	..	..	..	..	4.7	69.8	1.4
100-150	..	..	..	..	8.5	123.4	4.3
150-200	..	..	..	..	18.0	174.4	13.1
200-250	..	..	..	..	25.2	224.9	23.7
250-300	..	..	..	..	21.0	275.6	24.1
300-350	..	..	..	..	13.0	322.0	17.5
350 and over	..	..	..	..	9.6	398.8	15.9

The following table, based on the same data, gives an estimate of the number of herds in the Dominion which fall into certain groups with a narrow range of average production.

19. Distribution of Total Herds based on Average Production :

Range of Herd-production Average.					Percentage of Total Herds represented.	Average Production per Herd.
						lb.
Under 150	..	..	..	..	3.6	107.7
150-200	..	..	..	..	15.9	175.2
200-250	..	..	..	..	36.4	225.4
250-300	..	..	..	..	34.2	275.2
300-350	..	..	..	..	9.2	318.6
350 and over	..	..	..	..	0.7	366.7

These two estimates indicate the extent to which unproductive cows are still being milked, and the uneconomic nature of many herds. The presence of such units in the industry makes it apparent that adjustments in farmers' positions cannot be made until all facts relevant to each farm are fully investigated, for herds in the lower-production categories cannot prove sound investments at any level of prices.

20. Labour in relation to Production :

Dairying in New Zealand is organized largely on the basis of family labour, the efficiency of which varies considerably. There are, however, instances of one unit of male labour milking up to forty cows, and a range of between fifteen and thirty-five cows per male unit is common. Thus the efficiency of farm labour measured in butterfat output shows wide variations, and may range from 2,700 lb. to 12,600 lb. of butterfat on farms where dairying is the main source of income. High per-acre production of butterfat is, however, generally associated with high labour efficiency. With improved herds, and through the more widespread use of labour-saving machinery, the general level of labour efficiency has been raised materially during recent years, and to-day 6,000 lb. of butterfat per male unit should be viewed as the minimum for machine-milked herds. It is difficult to estimate accurately the improvement in labour efficiency, but, measured in butterfat produced, it has risen between 75 per cent. and 100 per cent. as compared with 1919-20. There are approximately 81,000 labour units employed on some 34,000 dairy-farms where dairying is the main or only source of income. These farms carry herds ranging from twenty cows upwards, and labour units may be owners or hired labour. About 10,000 of such farms are not equipped with milking-machines. The extent to which labour-saving machinery has been introduced is shown in the following tabulation of milking-machines and of separators. It should be remembered that milking-machines are used only where herds are of reasonable size, whereas separators are used on practically all farms where cows are milked for butterfactory supply, but not on farms supplying cheese-factories.

21. Milking-plants and Separators :

Season.		Total Milking-machine Plants.	Total Cows milked by Machines.	Total Separators on Farms.
1919-20	..	8,806	392,747	26,678
1926-27	..	17,090	753,751	45,246
1932-33	..	24,350	1,247,279	54,200