

Regard must be further had to the sales of milk and cream for the manufacture of ice-cream. Here again an exact statement is not possible, but the following approximate figures may be used as an indication of the quantities distributed and the prices paid :—

Annual gallonage of milk	100,000 to 120,000
Annual gallonage of cream	40,000 to 50,000

The seasonal distribution is shown in the following proportions :—

<i>Milk</i>		<i>Cream</i>	
October to March ..	Three-quarters of total.	October to March ..	Three-quarters of total.
April to August ..	One-sixth of total.	April to June ..	One-eighth of total.
September ..	One-twelfth of total.	July and August ..	One-fortieth of total.
		September ..	One-tenth of total.

The prices are seasonal and are approximately as follows : —

<i>Milk</i>		<i>Cream</i>	
	s. d.		s. d.
October to March	0 11½	October to March	8 3
April to August	1 1	April to June	7 6
September	0 10	July and August	10 0
		September	7 6

Two features of this return deserve mention—first, the demand is highest in the summer months when the producer has the greatest surplus : secondly, the price is appreciably above the price that would be obtained at a cheese-factory for the surplus.

Agencies of Distribution

The milk is distributed to consumers through various agencies. The householder and the consumer in offices are served, in the main, by roundsmen. But a large quantity is purchased from shops and dairies or consumed in milk-bars. Other quantities are served in hotels, boardinghouses, and restaurants, while institutions such as hospitals purchase supplies for their patients. Each of these agencies require consideration in regard to the means of ensuring either a high standard or a reasonable price, or both. Reference is made here to two only—shop dairies and roundsmen.

Shop Dairies.—There are 307 shop dairies licensed by the Christchurch City Council. This is much in excess of the number in proportion to population in the other metropolitan areas. The figures given for comparison are :—

Area.	Population.	Shop Dairies.
Auckland	223,700	379
Wellington City (excluding Hutt)	124,480	91
Christchurch	132,240	307
Dunedin	82,200	97

The daily gallonage handled by these 307 shops is indicated in the following particulars :—

82 shops	2 gallons or less.
159 shops	Over 2 gallons and not over 5 gallons.
53 shops	Over 5 gallons and not over 8 gallons.
11 shops	Over 8 gallons and not over 14 gallons.
2 shops	Over 14 gallons.

Each of these shops has to be served daily, but almost all are supplied by one or other of the large vending companies and, it is probable, that the cost of distribution is not high. But there are two facts to be noted, one is that the small quantities purchased do not justify a price much below the price charged to retail purchasers. The other fact, and one of still greater importance, is that the multiplication of small dairies increases the cost of inspection and probably under existing circumstances lessens the efficiency of control.

Roundsmen.—The roundsmen consist of a large number of men and girls employed by the vending companies and a smaller number of men and girls employed by raw-milk vendors and of producer-vendors who control substantial businesses and a considerable number of vendors and producer-vendors who distribute small quantities of milk daily.

The roundsmen employed by the vending companies work seven hours per day six days per week and have an average delivery per man per day of 85 to 90 gallons. From a return provided by 36 vendors and 26 producer-vendors it was ascertained that the daily average number of gallons delivered per unit of labour was vendors 38 gallons and producer-vendors 39 gallons per day.

Zoning

A system of zoning rounds has been adopted in Christchurch, and this has resulted in considerable economies. The saving in petrol alone is estimated at 9,437 gallons per annum. But, despite zoning, it is impossible to avoid wastage when so many persons and vehicles with so much equipment is engaged in the work of distribution. Part, and a considerable part, of the wastage is due to the numbers employed in collecting the milk and bringing it into the area. That has been discussed under the heading “Collection.” Another part is due to the division of the actual work of distribution among an unnecessarily large number of workers. The full benefit of zoning cannot be secured unless the size of the rounds as well as their location is adjusted to the service required.

Methods of Delivery

As in other areas, so in Christchurch, a variety of vehicles are employed in the work of distribution. The principal variety is the motor-vehicle. But everything from the pedal bicycle to the large modern truck is in evidence. A convenient form of truck employed by some vendors is one with a running-board on each side extending the full length of the truck. The crates of bottled milk are so arranged that a roundsman standing on some part of one of the running-boards can conveniently reach any of the crates. Some of the vehicles used are covered, but others are not.