H.-29A 30

suffered first. In no year was the supply rationed for a lengthy period. In 1943 there has been no rationing of school milk, and this is the only metropolitan area of which this statement can be made.

There is one feature about the supply that is disturbing—that is, the dependence on supplies from dairy-farms holding temporary licenses only. The area has not drawn supplies from a distance as has been done in Auckland, Wellington, and Dunedin. But it has depended on temporary licenses. It was in this area that the attention of the Commission was drawn to the fact that until 1939 there was no authority for the issue of temporary licenses. But the inadequacy of the permanent supply led to the practice of augmenting supplies from unlicensed dairies and the regulations authorizing the issue of temporary licenses appear to have been adopted so as to give some measure of control over these supplementary sources of milk. This development may have been unavoidable at the time, but it is highly unsatisfactory. The regulations governing the conditions under which milk is produced for town supply need to be tightened, not relaxed. If milk of a high standard is to be ensured, then other methods of meeting requirements must be sought and found. A large proportion of the milk that is drawn from these sources is what has been termed "accidental" or "fortuitous" milk, and, apart from the conditions under which it is produced, is not the most wholesome. The significance of the development, however, lies in the proof it affords of failure to provide an adequate supply of milk from approved sources and in the evidence of a progressive deterioration of the situation in this respect.

## Level Supply

Christchurch affords an example of a near approach to an all-the-year-round level supply of liquid milk. It approaches such a supply more nearly than does any other area. In some few cases dairy-farmers have no excess in summer over winter. This applies particularly to producer-vendors. Others who are producers only have a very small summer surplus. The relation between the supply for the six winter months to that of the six summer months of a substantial majority of the dairy-farmers who supply town milk is 45 per cent. to 55 per cent.

This result is due in part to the natural advantages that Christchurch possesses. The fertility of the soil and the capacity to produce abundant winter feed are more favourable to the maintenance of a level supply than are the conditions in Wellington and Dunedin. But the terms of the contracts between vendors and producers and the disparity in summer and winter prices are powerful factors. Under these conditions it pays to increase winter production relatively to summer production in spite of the higher cost of feeding. And this identification of financial interest with beneficial service has assisted to secure the desired result.

Though the supply is so much more nearly level in this area than elsewhere there is a summer surplus and its utilization is of importance. A considerable quantity is used for cream and for ice-cream. In the case of both of these commodities the demand is greater in the summer than in the winter. In the case of ice-cream this is particularly the case. And this demand affords one means of utilizing the summer surplus and affording the producers a better return than can be obtained at a cheese-factory. A feature of the industry in the area, however, is the importation of large quantities of cream from the west coast even while part of the summer milk surplus is being supplied to factories. This is the subject of a recommendation in Part II of this report. It is noted here as a special and undesirable present circumstance in the area.

## Balancing-station

There is no one recognized balancing-station in the Christchurch area. Some of the surplus is supplied to a factory. Some of it is sold to a purchaser who produces cream for the market on a large scale. One large vendor has submitted argument in support of an application to be allowed to open and operate a former cheese-factory as a balancing-station. There is no one station such as is operated by the Milk Department of the Wellington City Council or even one similar to the cheese-factory at Tamaki that is used by all purchasing vendors in Auckland.

## Standard of Supply

One respect in which returns from Christchurch are particularly unsatisfactory when compared with Wellington and Auckland concerns the standard of the supply. We are not able to present a statement that sets forth the position with anything approaching the fullness and clearness that ought to be regarded as necessary.

Two things that affect the standard are

(1) The breeds of cattle predominating in the supply area; and

(2) The use of temporary licenses.

The circumstances directly encourage production of quantity rather than quality, and the quality is not equal to that of Auckland or Wellington. In Wellington the butterfat content determines the price paid for the milk purchased by the Milk Department of the City Council. In Auckland one of the large companies pays on quality. In Christchurch payment is on a gallonage basis only.

The average value of butterfat and of solids not fat taken over a period of seventeen years have proved to be

Butterfat			 	 d. 4 · 20
Solids not fat			 	 $8 \cdot 93$
For the past five years th	ie values w	ere		
Butterfat .			 	 $4 \cdot 21$
Solids not fat	·		 	 8.87

The monthly variation in the percentage of fat computed from the samples for the seventeen years shows as follows—

	Per Cent.						Per Cent.		
January			$4 \cdot 23$	July			$4 \cdot 27$		
February			$1.4 \cdot 27$	$\Lambda { m ugust}$			$4 \cdot 11$		
March			4.43	September			$4 \cdot 04$		
$\Lambda$ pril			4.40	October			3.93		
May			4.42	November			$3 \cdot 95$		
June			4.35	December			$4 \cdot 01$		