

prolonged to impose conditions approaching a drought upon farming operations. There is a large area of good dairying country in close proximity to the metropolitan area. The carrying-capacity of most of the dairying land to the north of the city is less productive than that to the south, but even in the north a cow to 2 acres is maintained while one cow to $1\frac{1}{2}$ acres indicates the average quality of that to the south.

There is sufficient dairying land within a short distance of Auckland, if it is properly utilized for the purpose, to ensure adequate supplies of milk for an indefinite future; and, provided that the supply is properly organized, the cows grazing within 20 miles to 25 miles of the city are sufficient to meet all the needs of a considerably greater population without recourse to outside sources. There seems no reason for doubting that this statement applies even to a prolonged period of low rainfall. The adjacent counties of Eden, Waitemata, and Manukau return a total of 66,368 dairy cows in milk. In the County of Franklin, which adjoins Manukau and extends for some distance from Auckland, there are 85,044 cows. According to Connell's survey there are 13,612 cows within the immediate city supply area being milked not for town requirements, but for factories. According to the evidence given by a witness called by the producers' representative the average production per cow per annum can be estimated at 500 gallons. This was confirmed from other sources. Connell's survey estimates the production at 507 gallons per cow. The herds contain a fair proportion of Friesians, but Jersey and Jersey crossbreds are numerous.

COW POPULATION

Only a small proportion of the cows in the adjoining counties are milked for town supply. On the 30th April, 1943, 649 dairies, with a cow population of 25,206, were registered by the Department of Agriculture for town supply. These include all herds licensed to supply the whole of the metropolitan area. But this does not mean that this number of cows is being used for the town supply. Though a dairy-farmer complies with all the requirements of the Department as to the condition of his sheds, he cannot sell his milk for distribution in the area within the jurisdiction of the Metropolitan Milk Council until he obtains a license from the Metropolitan Milk Council entitling him to supply it to some particular pool. The Milk Council restricts the issue of licenses where the supplier wishes to supply a pool which already has a considerable surplus. The result is that, according to the figures supplied in evidence by the Milk Council, the number of dairy-farms licensed by them on 1st February, 1943, was 460 only, and of these, 43 were holders of temporary licenses that entitled them to supply for a limited period in the year only. We have not been able to ascertain the number of cows on dairy-farms that are licensed by the Council. Certain facts, however, are significant. The return from the Department of Agriculture shows a decrease of two licenses, but an increase of 863 cows between 30th April, 1942, and 30th April, 1943. The return from the Milk Council shows a drop of 8 in the permanent licenses between 1st February, 1942, and 1st February, 1943, but the addition at the latter date of 43 temporary licenses not previously returned as such. The number has steadily increased year by year since 1937, but, as already stated, the movement in cow population on licensed dairy-farms is not known. In evidence submitted by the Milk Council emphasis was laid on the number of dairy-farms that have gone off town supply.

Volume of Production

According to the return of milk available from all dairymen and dairymen-vendors licensed by the Council during the period from 1st August, 1937, to 31st July, 1942, the annual returns were as follows:—

1937-38	..	..	..	8,990,703 gallons per year or 24,632 per day.
1938-39	..	..	..	8,380,051 .. 22,959 ..
1939-40	..	..	..	9,588,274 .. 26,198 ..
1940-41	..	..	..	10,840,848 .. 29,701 ..
1941-42	..	..	..	9,811,914 .. 26,882 ..

It must be borne in mind that the production is not uniform throughout the year and that the consumption demand, apart from variation in demands for the Armed Forces, approaches much more nearly to uniformity than does the production. If attention is paid to the months of lowest production in each year, we find the following facts:—

Period 1st April to 31st March,—	Total.	Daily.
1937-38 (July)	591,292	19,074
1938-39—		
April	455,920	15,197
July	558,029	18,001
1939-40 (August)	613,510	19,791
1940-41 (June)	697,511	23,250
1941-42—		
March	560,119	18,068
June	652,088	21,736

During the month of lowest production the average quantity produced daily is less than that averaged throughout the year by 5,558, 7,762, 6,407, 6,451, 5146 gallons respectively.

The tables in the next preceding paragraph show the facts necessary to relate the supply to the demand. In considering these facts it is necessary to bear in mind that the demand for some days will exceed the average daily consumption for the month and the supply for some of the days will be less than the average daily supply for the month. If the demand is to be met the supply ensured must provide a margin over the average daily consumption even when the average is taken over so short a period as one month. It is essential that a surplus be budgeted for, and too small a surplus over a year shown in the returns of any milk pool may, having regard to the public interest, be a greater evil than an overlarge surplus.

The question of the daily surplus required reveals the importance of so arranging production as to ensure as even a supply throughout the year as it is possible to obtain. The return of supplies