

of people engaged therein, but the actual production of the land. The major question at issue is, Is the land being farmed as efficiently as possible? In other words, is the maximum production being obtained, or is it being retarded by the lack of persons engaged in agriculture? An historical review of the development will, perhaps, clarify the issue somewhat.

The mechanization of the dairy industry began about the end of the 1914-18 war. In 1920-21 there were approximately 890,000 dairy cows in milk. This number had doubled by 1939-40, and was then approximately 1,750,000 cows. There has been some considerable expansion of the area devoted to dairying, but the principal feature of the progress of the dairying industry during the period was the increasing number of cows per acre, plus the increasing yield of butterfat per cow. Ignoring for the time being the problem of the mechanization of the dairying industry, the number of cows handled by any farm could, in general terms, be increased if hand-milking were still in fashion only if the number of milking hands were increased. In actual fact, the number of milking hands did not increase proportionately to the number of cows. The explanation, therefore, is to be found in the field of the mechanization of the dairying industry. If at the end of the last war the maximum number of cows that could be milked by any one person was approximately twenty-five, this was increased to probably forty and over as the result of the introduction of milking-machines and mechanized separation procedures. A further step forward was taken towards the end of the fourth decade of this century when stripping tended to disappear with the greater efficiency of the milking-machine. This again tended to increase the number of cows which could be handled by any one man. Hence the labour efficiency tended to increase, and probably increased in a considerably greater proportion than the increase in the number of cows per acre.

A second factor of importance was the improvement in farm techniques, particularly in the increase in the use of artificial fertilizers and better farm management. The necessity for root-crops, particularly in the North Island, has tended to fall off, and hence the necessity for ploughing and similar cultivation became of considerably less importance. Labour requirements for maintaining pastures by artificial fertilizers are much less than the labour requirements where ploughing and cultivation have to be undertaken.

From the above points of view, any relative decline in the number of people on the land is not necessarily a retrograde step, but a sign of economic progress. In actual fact, as is shown in the section dealing with agriculture, there has been very little real decline.

Persons who argue against the drift from agriculture, however, tend to forget that the mechanization of agriculture has created in urban areas the necessity for the development of a very large class of industrial worker concerned directly with the servicing of agriculture. The internal-combustion engine, particularly as it affects transport, has created a very important secondary industry in the Dominion, which in statistical returns is not regarded as engaged in agriculture. While it is a fact that this industry is partly concerned with urban requirements, a considerable proportion is concerned with servicing of agriculture. The transport industry is another instance of the same tendency. About the end of the 1914-18 war the farmer normally carted his own cream to the factory. At the present time practically no dairy-farmer, concerned at least with the buttermaking industry, carts his own cream. This particular phase of the industry is highly specialized, and the operatives generally tend to live in urban areas. The electricity industry is in a similar case. Hence, if account were taken of those industries concerned primarily with the servicing of agriculture it could be shown that there has probably been no drift from agriculture, but rather the reverse.*

* It is not denied that in certain areas, particularly in the South Island, there has been a relative decline in agricultural population. This, however, is a special problem which will be dealt with later.