47 H.—30.

"The Danish system of production management, enabling her to spread deliveries and sell most of her butter before it is produced, is possible only under a system of continuous milking. In discussing Danish marketing, this fact should not be lost sight of. Denmark's policy is to 'sell' as much butter as possible to Great Britain and 'market' as little as possible. Her production graph is very significant, and means the peddling of only 40,000 tons instead of New Zealand's 140,000 tons."

From the point of view of the quality of butter, there is no doubt that, on the average, it is wise to reduce storage to a minimum. Unfortunately, there is no definite information available in New Zealand as to whether butter made in winter and consumed two months later is superior to butter made in mid-summer and stored for six months, assuming that the butter is made from the milk of cows at the same stage of lactation. Some witnesses considered that there would be difficulty in procuring a pure milk-supply in winter, when cows would be exposed to cold weather and fed largely on supplementary feed. Others believed that this view was unsound, because already in some areas cows are brought into profit early in July, and no difficulty is experienced in obtaining cream of high grade in the winter and early spring. Some factory-managers, while agreeing that the best-quality butter is made in summer, pointed out that a more even supply of cream throughout the year would facilitate the manufacture of good-quality butter. They claimed that it would obviate the difficulties that arise when most cows came into profit within a short period of two months, and therefore arrive at the end of their lactation at much the same time; that it would permit of daily cream collection throughout the year; that it would improve the efficiency of labour through constant employment of workers and avoidance of labour difficulties at periods of peak production; and that it would permit of a material increase in butter-production without the necessity of incurring additional capital expenditure on factory buildings, plant, and stores.

On the side of farm production, it is apparent that it would entail in some districts a considerable change in systems of animal husbandry, but if the practice resulted in an increased price for butter, suitable farm practices could be evolved. Although many farmers consider that winter milking is not economically possible under existing conditions, owing to the added costs of feed and the need for housing cattle in some districts, the following extracts from evidence summarizing the experiences of farmers who have already adopted winter milking, do not support this view. One witness said:—

"An increased percentage of our cows calving in the early autumn as against the spring is to our minds quite a feasible proposition, and capable of being exploited to quite an extent with benefit both to the farmer himself and the industry as a whole. In the Auckland Province, at least, we have two periods in the year with little or no growth—the winter months, which, generally speaking, we at present use as an off period, and the dry period of January and February, when in many seasons, through lack of rainfall, little or no growth is apparent. What is more natural than to have as many cows as possible having their spelling period during these times, so that with a smaller number of cows milking, a greater quantity of good milk-producing food would be available per head? We have proved through practical experience that the autumn calving cow will produce equally as well as when she calves in the spring, in fact, better than if she were not calving in the spring till late September or October.

"The system has the following advantages to the farmer:—

' (a) It will tend to even up his income throughout the year.

"(b) It will remove to a large extent the attendant worry always attached to the getting of one's cows in calf for the spring period. In most cases cows difficult to get in calf in midsummer will hold easily at this period of the year, and milk through to the following summer with little trouble.

"(c) It will simplify his operations with the utilization of his skim-milk or whey for his pigs, as he will not have to the same extent that glut period, and

also that period of scarcity, so apparent to-day.

"(d) He will have less trouble at calving-time in the autumn, owing to the fact that, generally speaking, his cows will not be subject to the same radical change in feed which is so noticeable at spring calving, and which undoubtedly is one of our chief causes of trouble with our dairy stock at this period.

"(e) Young stock born in the autumn appear to pass that critical period in their lives at eight to twelve months, so noticeable amongst many of our spring

calves, with little trouble.

"Care must be taken in the recommendation of the general adoption of winter dairying to point out that it has to be gone into gradually, so that the farmer will gradually be able to assess the feed requirements of his stock during the winter months. The success of winter dairying is absolutely bound up with the provision of adequate feed for the stock in milk. In the hand of the inefficient farmer it might be dangerous and lead to a lot of trouble, but for any one working on sane sound lines nothing but good can come from its adoption.

"With calving about 20 per cent. of one's herd in the autumn, no appreciable increase in the cost of production has taken place. If this percentage were increased to say, 40 per cent. and further supplementary crops had to be grown to enable them to be really well fed, a slight increase might occur, but this would, we believe, be more than offset by the advantages

previously referred to.'