The scale of prices under the Government's guaranteed-prices scheme has had a bearing on quality, and during the present season butter-manufacturers have aimed at a finished article on which the premium above the basic price is being paid. In addition, some of the advance in quality may be attributed to improved shed, plant, and farm conditions, as well as improvements in respect of dairy factories and plant brought about through the Labour Department's financial assistance by way of subsidy.

Complaints were confined principally to feed flavours and to faulty control of neutralization of acidity in cream. The practice of using starters in buttermaking is extending, and considerable difference of opinion still exists as to the advisability of using starter in the manufacture of butter. It would appear that proper conditions of preparation and considerable experience and skill in the use of starter are necessary before the practice can be safe and success assured.

The growing number of reports from the Divisions's officers in Britain in respect of foreign matter in dairy-produce, more particularly butter, gives cause for grave concern. The matter has been taken up with dairy companies, but unless the position improves severe steps would appear justified to remove grounds for further complaint. The majority of reports received indicate carelessness rather than accident, and in properly equipped and conducted factories there should be little excuse for either.

pH Testing of Butter.

The pH testing of butter for alkalinity, which has been more thoroughly carried out during the past year, has given a clear indication to factories which were using excess neutralizer. This work, which was inaugurated prior to 1933 at Wanganui, by Mr. F. Bishop, Moisture Tester, has been developed on the colorometric principle as suggested by him, and for the purpose of checking the accuracy of the system a potentiometer is in use at Auckland. In a number of dairy factories an appliance known as the Lovibond comparator is being used for the same purpose.

During the year 3,938 pH tests of butter were made at Auckland, 1,068 at Wellington, 162 at New Plymouth, and 34 at Castlecliff, a total of 5,202. In addition, at the Auckland grade stores 235 samples of butter were tested for iron content.

Testing Butter for Moisture and Salt Content.

The Dairy Industry Act provides for a maximum moisture content of 16 per cent. in exported butter, while this is also the legal requirement in Britain in respect of imported butter. To safeguard the position each churning forwarded for grading is tested, overmoisture butter being withheld from shipment and returned for reconditioning to the dairy company concerned. During the year under review 182,690 churnings were tested, 0·31 per cent. being over the legal limit.

With regard to salt the regulations permit a range of from 1½ per cent. to 2 per cent. Salt tests made during the year totalled 168,753, of which 0·15 did not comply with the regulation limits and accordingly were withdrawn from shipment. In a few cases, however, the shipment of butter with a salt content outside the legal range, and intended for special markets, has been permitted.

Butter-boxes.

The question of supplies of butter-boxes has been an extremely difficult one. Following the decision to eliminate the peeled box in February, 1936, some dislocation in the supply of the other three types of boxes arose, and a number of adjustments had to be made.

This was followed by a reluctance on the part of dairy companies to place their orders for boxes for the 1936–37 season until the terms of purchase under the guaranteed-price scheme had been announced, and the added difficulty of getting firm quotations from the boxmakers. The latter were unable to furnish quotations owing to the uncertainty regarding labour-costs, and this led to a delay on their part in placing their orders for timber. This, combined with the abnormally wet summer, resulted in a shortage of seasoned timber being available when required, and in order to ensure the distribution of the supplies available the New Zealand Boxmakers' Association undertook this work and allocated the requirements of the creameries to the members of the association for fulfilment.

At an early stage it became apparent that the bulk of the supplies of timber required would have to be drawn from the West Coast of the South Island, and responsibility for providing the quantities needed was undertaken by the State Forest Service, which arranged for the distribution of the supplies available to the boxmakers in the North Island.

At the same time arrangements were made for the formation of a pool for all butter-boxes made in the North Island from New Zealand timbers, the administration of the pool being placed in the hands of the Dairy Board. Under this scheme the Dairy Board pays the boxmaker on a basis of the cost of the timber delivered at his box-factory, the boxes being charged up to the dairy company by the Dairy Board at the average pool price ex-box-factory plus the cost of the administration of the pool.

During the season permission was given for the export of a limited quantity of butter in imported containers (*Picea abies*)—approximately half a million—for which orders had already been placed, while further trial shipments of boxes of a number of other types were also made, these being Saranac boxes made of soft rimu timber, fibre-board boxes with wooden ends and cleats, and the Whitford box, which has a fibre-board liner to which a Saranac type of wooden covering is attached. The results of these shipments are not yet available.

In view of the complaints received regarding the development of mould on butter landing in Great Britain in the summer months of the last three years, particularly when packed in Saranac boxes, it was decided that from February onwards all butter packed in this type of box should be wrapped in Parchfoil, and an allowance of 1¾d. per box was made by the Marketing Department to