

In addition to this, investigations at the Station and in New Zealand have revealed that equally close attention has to be devoted to the hygienic conditions of slaughter and handling and storage at the works in New Zealand if continuity of quality and condition were to be maintained and good prices secured at Smithfield. Attention of the Station is also being devoted, following our request, to the best methods of packing, storage, and transport of edible meat offals such as kidneys, livers, &c. Flavours in meat caused by oxidation changes proceeding in fats were receiving attention, and this work had a particular bearing upon New Zealand meat on account of the long period which it remained in transport and thereby was afforded an opportunity for the development of flavours.

In regard to pork and bacon the research work in progress possesses a wide significance in connection with our growing pig industry. A few years ago when the question of export of bacon from New Zealand was receiving consideration, this was considered to be out of the question because of deterioration of the fat during transport. Now the maintenance of bacon in an atmosphere of pure carbon-dioxide gas indicates that this trouble can be overcome, though it is not yet fully practicable. Further, the fact that high-quality bacon can be manufactured from New Zealand frozen pork has been demonstrated beyond question, and this has enabled New Zealand to find a place in the bacon market of Great Britain. The importance of the cold-storage investigations on meat to New Zealand is indicated by the fact that, in general, New Zealand chilled beef brings an increase in price of 1d. a pound in Great Britain, and if the Dominion fills its quota of chilled beef the increased value of chilled beef over frozen beef will reach a total of the order of £50,000 per annum.

The Cambridge Low Temperature Research Station is one of three research stations maintained by the Food Investigation Board attached to the British Department of Scientific and Industrial Research, and on which New Zealand is represented. The other stations are Ditton, where there is an experimental ship's hold for carrying out refrigeration and dunnage trials, and Aberdeen, where problems of refrigeration and storage of fish are investigated. The total cost of the work is £50,000 per annum, of which New Zealand contributed last year £3,000—towards which the Meat Board made a grant of £1,250, the Fruit Board £400, and the Dairy Board £200, and the New Zealand Government £1,150. The work of the Food Investigation Board has undoubtedly helped considerably in improving conditions of storage and transport, so that our produce is now arriving on the British market in a condition more nearly approaching its pristine freshness.

## FRUIT.

The fruit-research organization in New Zealand has been strengthened and stabilized by the contribution from growers through the provisions of the Orchard Tax Amendment Act, which will ensure a steady progressive programme of work to be laid out.

My recent visit to England caused me to become very impressed with the value of maintaining a high reputation for quality and storability in regard to our fruit exported. New Zealand fruit is there held in high esteem because of its quality. It is in this respect that research can help by being able to guide growers and shippers towards even higher standards, and by enabling the production costs to be lessened. The year has seen marked advances in this respect; a clue has been found to a possible remedy for the serious corky-pit disease of apples and pears; the importance of using sprays of appropriate toxic strength and applied to the trees in a thorough manner is now realized, and appears as a possible means of reducing costs; new systems of stowage and modified temperatures in transporting-vessels appear likely to reduce wastage and effect savings in costs. It is appropriate that New Zealand's fruit-research activities cover the complete range from the orchard soil to the consumer overseas, so that every aspect of the industry is subjected to constant scientific study.