15 H.—29.

season the most trying for cheese-manufacture New Zealand has experienced for decades. Quality of cheese has therefore shown some falling-off in the major portion of the cheesemaking districts. Canterbury Province evidences some improvement as the result of the extension of the practice of pasteurizing the milk for cheesemaking purposes. While lack of uniformity was prominent amongst the defects, too much openness in body and shortness in texture were of more frequent occurrence than hitherto. "Slimy" milk was in some districts difficult to contend with, but experience tends to indicate that this trouble can, in a great measure, be rectified by proper cleansing methods of the utensils on the dairy farm. Coloured cheese were in some cases defective in colour. This trouble does not appear to be due to inferior colouring, and the cause is being sought for in the milk-supply. The Officer in Charge of the Bacteriological Laboratory at Wallaceville is at present working on the matter.

Paraffin-waxing of cheese: A number of years ago the Dairy Division made a trial shipment of cheese coated with paraffin-wax. The use of the wax on the cheese, after the rind has dried out properly, prevents much of the loss of moisture which usually accompanies the curing and further holding of the cheese. That experiment was in some respects disappointing. Since then many cheese-manufacturing dairy companies have installed plants for pasteurizing the milk prior to the making of the cheese. This pasteurizing of the milk causes the cheese to retain its keeping-qualities for a longer period. It also permits of the manufacture of a cheese containing more water without interfering unduly with the keeping-qualities, and this softer cheese is more desired by the consumer in the United Kingdom. The manufacture of a cheese containing a higher water content has, however, tended to increase the percentage of shrinkage. The Dairy Division therefore arranged another trial shipment of paraffined cheese this season, in order that the saving in shrinkage might be noted, and a report obtained regarding the acceptability of the wax-coated cheese in the cheese trade of London. The London report has not yet been received.

Casein content of milk for cheesemaking: with the co-operation of several dairy companies and the Agricultural Chemist, experiments were commenced this season with two practical tests for ascertaining the casein content of milk for cheesemaking, with the object of obtaining data which, in conjunction with the known fat content of the milk, and the moisture content of the cheese, will tend to establish the yield of cheese obtainable from the milk supplied to dairy factories. Results obtained so far indicate that the object in view may be realized. An account of the experiments will be published in due course.

Quantities of Butter and Cheese forwarded to Grading-stores for Grading.

Port.			Year 1923-24.		Year 1922-23.	
			Butter.	Cheese.	Butter.	Cheese.
	11.00		Cwt.	Cwt.	Cwt.	Cwt.
Auckland			554,337	203,091	707,146	168, 127
Gisborne			17,273		19,045	• •
New Plymouth			99,496	257,534	132,303	188,927
Patea			27,868	302,728	58,371	238,166
Wanganui			75,008	26,421	41,815	19,416
Wellington		[	182,441	341,770	252,429	312,350
Lyttelton			47,026	35,097	54,079	28,673
Timaru			11,303	14,661	12,301	11,358
Dunedin .	• • •		34,964	42,584	38,397	43,426
Bluff			18,471	203,879	27,250	190,886
Totals			1,168,187	1,427,765	1,343,146	1,201,329

## VALUE OF EXPORTS.

Prices of dairy-produce for the year under review have on the whole been satisfactory, as is indicated by the Customs statistics of the values of exports. Including butter, cheese, dried milk, casein, condensed milk, and milk-sugar, a total value of £18,567,474 was reached, as compared with £16,207,053 for these products during the previous year.

## CASEIN.

The manufacture of casein has evidenced a considerable increase. New uses for casein are being brought forward; the advantages attained by its use are causing it to be availed of, in the stead of other commodities, for a number of purposes in various industries. The quality is understood to be giving satisfaction. The major portion graded for shipment has been lactic casein. This variety has been improved considerably in quality during recent years, while rennet casein manufactured in New Zealand has in a number of instances been said to equal the best in the world.

## FARM-DAIRY INSTRUCTION.

The work of instruction respecting the milking and care of milk and cream on the dairy farm appears to be growing in popularity. The tendency for dairy-farmers to regard the Farm-dairy