

lands is spent to the best advantage, but it is insufficient when the weed-infested lands are taken into account. The Native Department does not grant any money for the eradication of weeds on Native unoccupied or unindividualized lands, and unless some such system as that of leasing such lands free for a term of years on condition that a sum of money is annually expended on weed-destruction work is adopted, it will eventually be found hard to get occupiers under any circumstances whatever. The question is a serious one, and greatly retards the work of weed-eradication throughout the Dominion. A special effort is being made to deal with Native occupied lands, with some fair amount of success, and experimental work in regard to the best method of dealing with large tracts of blackberry-infested land is being conducted by the Fields Division (Biological Laboratory Branch) in the various districts.

Prosecutions for breaches of the Noxious Weeds Act to the number of 153 were instituted during the year.

DAIRY DIVISION.

The Dairy Division, under the direction of Mr. W. M. Singleton, has had a very busy year, and has carried out its responsibilities most satisfactorily. The farm dairy instruction service carried out in co-operation with dairy-factory companies has shown a marked development, and a further extension of this service is certain to come about, as it undoubtedly is an important factor in assisting in improving the standard of our dairy-products. Herd-testing has gone ahead greatly, and is bound to extend still more. The need for a properly equipped laboratory for investigation and research work on manufacturing problems and difficulties has become very apparent. The Wallaceville Laboratory and staff have been utilized for the purpose of dealing with these matters, and some good work has been done, but the real requirements of the industry are far in excess of the capacity of that institution, and a separate laboratory is needed. The following is the Director's report:—

THE SEASON AND PRODUCTION.

The season under review has not been so favourable for production of dairy-products, either in quantity or quality, as its predecessor. The good autumn in 1923 was succeeded by a very wet winter, a late spring in many districts, and a dry summer. Some districts fared worse than others during the summer period. The districts of Canterbury, Otago, Wairarapa, Hawke's Bay, and portions of the Wellington, Taranaki, and Waikato districts, suffered most severely from insufficient summer rainfall. The forecasts of production made in the earlier spring on the assumption of a normal season were therefore not realized. Instead of an increased production of butterfat for export as anticipated, the official year has, on the contrary, evidenced a decrease. (Favourable weather since the 1st April has enabled the season's total output to reach a normal aggregate quantity.)

BUTTER.

Quality of butter has not been fully maintained during the past season by most of our butter-factories. Climatic conditions have been unfavourable, as the high temperatures facilitate the development of undesirable flavours. Reports have been received commenting on some butter evidencing the flavour of the agent used in the partial neutralizing of the acidity in the cream. Doubtless many of these reports were justified, and buttermakers have in many instances failed to give the necessary attention in the partial neutralizing of the acidity in the cream. A test has been suggested by the Department's Chemist which, it is anticipated, will place the Dairy Instructors, Graders, and factory-managers in a better position to combat this trouble in future.

Water in butter: During the 1922-23 season considerable complaint was made by importers of New Zealand butter into the United Kingdom regarding butters found to contain a water content over the legal limit. During the past financial year extra staff was engaged, and since August last the Division has followed the practice of testing for water one box of butter from each churning. Graders have, as the result of this testing, prevented a good deal of butter containing excess of water from being exported until after being reconditioned. It is satisfactory to know that not one official complaint has since been received respecting New Zealand butter containing an excess of water on being analysed in the United Kingdom. Throughout the financial year some 106,786 samples have been tested for water content.

Salt in butter: A considerable amount of samples of export butter have been tested for salt content. The results evidence too much variation not only as between different dairy factories, but between different churnings from the same factory. While there is a tendency for some dairy companies to salt too heavily, a number could with advantage incorporate more salt without prejudicing the quality of their butter. On the other hand, the tendency of some buttermakers to add too much salt is likely to prejudice consumption.

Whey butter: There is room for considerable improvement in the manufacture of butter from whey cream. Too little care is in many instances given to the care of the cream between the time of separation and its being manufactured into butter. A number of dairy companies have forwarded for export whey butter of good quality, thus emphasizing the fact that good quality may be made.

CHEESE.

The higher temperatures which prevailed during the summer period made the manufacture of cheese of the best quality a very difficult task. Many competent to express an opinion consider this