

the wartime temporary staff were eagerly sought after by their previous employers, and branches easily returned to an establishment which is now kept busy on problems arising directly from industry. War conditions have brought many industries into closer contact with the Department, and this appears to have resulted in a continued demand for services in peacetime on a scale greater than was anticipated. There appears to be no doubt but that the service which such a branch as the Dominion Physical Laboratory rendered New Zealand industry in wartime, through its gauge and tool production, and through the research and development work it undertook, could be continued in peacetime and form an essential foundation for the future welfare of our manufacturing industries. The idea has been placed on trial in Auckland, where a number of the Department's wartime activities have now been grouped into the organization known as the Auckland Industrial Development Laboratories. This branch has made good progress during the year and has already demonstrated its capacity to be of great help to local manufacturers. In none of these activities is it intended to enter into competition with local manufacturers or to do work that they can do. Careful supervision of all service rendered is regularly undertaken by a Committee to ensure that such does not occur. On the other hand, it is hoped that new activities sponsored in the Laboratories may ultimately be taken over by units of industry and serviced therefrom, leaving the Laboratories to concentrate on further research and development and to undertake only such specialized services as are essential to industry and yet unlikely to be provided in New Zealand by private firms.

The policy and organization in relation to secondary industries, of the Dominion Physical Laboratory, the Auckland Industrial Development Laboratories, and the Defence Development Section, Christchurch, which have developed along quite promising lines during the period since the cessation of hostilities, will require some time before they are generally accepted, but it is anticipated that this progress will do much to strengthen the link between research and secondary industries which in the past left much to be desired.

During the year consolidation of some of the wartime activities, working as separate units in each centre, has been brought about. The Radio Development Laboratory and other sections in Wellington have, for example, been absorbed into the Dominion Physical Laboratory, and not only in Wellington, but in other centres, there has been a grouping of the chemical, physical, and engineering activities so that the requirements of the post-war secondary industries, which generally are found to embrace all three types of assistance, can be more readily met. While the Department's policy is one of preference for research and development, leaving servicing to other organizations, it seems likely that in some directions at least it will be impossible for some time to avoid participation in servicing. Nevertheless, it is evident that, just as science is characterized by development along lines of specialization, so is it becoming increasingly necessary to bring together all these diverse activities in order to solve the practical problems of the day. It is a definite part of the Department's policy of organization to provide means whereby the whole impact of scientific progress from every angle will be brought to bear on the problems of both primary and secondary industries. In regard to secondary and manufacturing industries it is desired to make the fullest possible use of the wartime advances, staff, facilities, &c., made available to the Department to help them in their peacetime problems and their future progress.

Probably no problems are more vital to the future welfare of New Zealand than those associated with soil conservation. During the year the Soil Bureau, Grasslands Division, and Botany Division have combined in investigations which have covered areas where soil erosion is in progress or threatens. Over considerable portions of the Dominion it is now possible to measure the extent of soil fertility decrease through erosion, and to indicate measures for checking the losses. The Grasslands and Botany Divisions have carried out surveys and have initiated investigations, on hill country in both Islands, designed to conserve soil fertility. The Botany Division has continued its work of investigating the weed problems of the Dominion, some of which—*e.g.*, *nassella*—are constituting a very serious threat to good pastoral land. In order still