

Scientific and Industrial Research in New Zealand

THE twelfth annual report of the Department of Scientific and Industrial Research, New Zealand, includes the Minister's statement, together with the Secretary's report, and the reports of the various research committees, institutes or bureaux under the Council. Some account of research work at Canterbury Agricultural College is included, and also of the work of the Geological Survey Branch, the Meteorological Branch, the Dominion Observatory and the Apia and Magnetic Observatories. Referring to the work of the Meteorological Branch, the Minister emphasizes its growing importance as a result of the rapid expansion of commercial aviation within New Zealand and the development of trans-oceanic aircraft. The Geological Survey Branch has gained importance through the Government's proposals in regard to the establishment of an iron and steel industry, and also through the recent activity of oil prospecting, with its emphasis on the importance of accurate data on geological structure and mineral resources of the Dominion. During the year, the Soils Survey Division of the Department has carried out an extensive programme of work in Hawke's Bay, North Auckland, Blenheim, West Coast and Bank's Peninsula, the results of which are being published. The Soils Survey Division has also contributed important data collected in the course of soil surveys which bear on the problem of soil erosion and land deterioration in New Zealand.

These activities fall under the broad section of the activities of the Department which is concerned with provision of essential scientific services to the Government. In this section is also included the work of the Dominion Laboratory, which has recently carried out much work for the Housing Department in connexion with the examination of a wide range of building materials, and has given valuable advice as to the durability and general standard of the materials used. The laboratory is also carrying out important industrial research work, particularly in relation to the phormium, kauri gum and fruit industries, and has almost completed an investigation of the curing of lemons, which has given results of real value to the industry. The work of the Plant Research

Bureau has been further consolidated and is now a major branch of the Department's activity. The Botany Section (now established in Wellington) has been engaged in two major investigations which have a bearing on economic problems—ragwort and South Island tussock grasslands. These studies have revealed the remarkable capacity of the ragwort to regenerate from root fragments, and have indicated that toxic sprays seldom injure the plant to such an extent that regeneration of roots will not occur. The Entomological Division has largely centred on measures designed to control the two principal insect pests of rape and turnip crops and has undertaken a study of insect pests of wheat. Work has also been completed on the effect of Agrosan and Ceresan dusts on the seed of wheat, oats, barley and peas, and has shown that little or no adverse effects can be detected on the treated seeds when stored for periods less than five months, either in subsequent germination or in the control of disease. The Plant Diseases Division has made good progress with spray testing technique, and with the growing of pyrethrum. Attention has also been devoted to problems of industrial mycology.

The Dairy Research Institute has been responsible for important advances in the study of the technique for the maintenance of single strain starters, and in this connexion the experience of the Institute has emphasized the importance of the technical education of managing foremen in industrial efficiency. New research associations have been established to provide a co-ordinated scientific and technical service for the woollen manufacturing, boot and shoe manufacturing and tobacco industries. The newly-formed Social Science Research Bureau has directed its activities to a study of the standard of living of dairy farmers. The study of dietary requirements has been handed over to the Medical Research Council, at a stage where family diets have been formulated giving sufficient energy and protective food values. The report also includes accounts of the work of the Wheat Research Institute, of the Fruit Research and Radio Research, as well as of the work of the Standards Institute.

Protection of the Natives of Dutch New Guinea

MEN of science in Holland have been by no means blind to the havoc which is being caused, especially among fauna and flora, by Western exploitation of natural resources in the remoter parts of the world. They also appreciate to the full the deleterious effects of the impact of Western civilization on primitive peoples. This latter problem is one which has been brought home to them with peculiar force and urgency, not only on behalf of the native populations under Dutch administration in Indonesia, but also owing to the prospective rapid

development of the natural resources of Dutch New Guinea in the near future, where the use of aeroplanes by the great oil interests and also prospecting for minerals are bringing about the speedy opening up of the hitherto inaccessible interior.

On April 29, 1937, the Netherlands Committee for International Nature Protection, an influential body which came into being, as its name implies, for promoting international co-operation in devising measures for preventing or alleviating the grosser and more harmful results in Nature of the spread of civilization