

Seaweeds.—For the first time supplies of seaweed were insufficient to keep the agar-factory fully employed throughout the year. Quantities had fallen particularly in Bay of Plenty and North Auckland, and in the former district some evidence was found of depletion of inshore beds. Supplies from all districts are improving in autumn, 1950. As a result of investigations made in Australia last year some weed of *Gracilaria* has been imported from New South Wales and it has been found possible to supplement local weed with a small proportion of this without lowering the grade of the finished product.

Phormium.—At the Moutoa Phormium Research Station intensified investigations on yellow-leaf disease are continuing. An outbreak of the disease with severe wilting and a high incidence rate occurred in the variety Ngaro in one trial area; by contrast, the variety SS in the same trial has shown marked resistance. Nevertheless, in an SS plantation established in 1940 the disease was found to occur more frequently than usual in this variety but is not sufficiently serious to alter the recommendations made for its extensive propagation. An inspection of phormium areas in the Invercargill and west coast districts of the South Island has shown that the disease is present, though it does not threaten commercial production.

A very sparse flowering has limited the amount of breeding-work, and also the possibility of producing SS seedlings for commercial planting on the Moutoa Estate. Work on improving the methods of raising plants from seed has been continued.

A map covering a resurvey of the vegetation on the eastern half of the Moutoa Estate shows the detrimental effects to natural phormium stands brought about by over-drainage and prevention of flooding. Permanent quadrats for detailed study have been laid down in some of these stands.

Seed which normally lose viability quickly, when stored in airtight conditions for two and a half years had a germination of 79 per cent.

MISCELLANEOUS

New Zealand and American Fiordland Expedition.—The Director has completed the final report, consisting of the combined accounts of all parties invited to participate in the Expedition.

Artist.—The Division's artist prepared illustrations for several publications, including an educational bulletin on sand-dune plants, articles on mosses, lichens, water-plants, seaweeds, and *Nothofagus*. An index to all drawings has been made.

Publications.—During the year eleven technical and three popular publications were prepared by members of the staff.

DOMINION LABORATORY

Director: Mr. F. J. T. GRIGG

The year has shown a steady growth of the Dominion Laboratory, both in Wellington and in the district laboratories at Auckland, Christchurch, and Dunedin. Staffing has improved, although there is still a serious shortage of that group of chemists between the most senior and the most junior grades, and certain categories of scientific work are still restricted by the insufficient recruitment to the laboratories of the best science graduates. To compensate for the low replacement rate of the war years there has been a rapid over-all increase of staff to meet the increasing demands for chemical investigations, and this has given rise to a shortage of space. Apart from a very few minor temporary additions, the Wellington buildings are very much as they were ten years ago when the staff was only half the size that it is now. Although, unfortunately,