

New Zealand Institute; Professor D. C. H. Florance, representing Professors of Physics; Mr. F. J. Jones, representing the New Zealand Society of Civil Engineers; Mr. F. T. M. Kissel, representing the electrical-engineering interests of the New Zealand Society of Civil Engineers; Mr. W. L. Newnham, representing the Public Works Department; Mr. G. A. Pascoe, representing the New Zealand Manufacturers' Association; Mr. J. R. Smith, representing the Post and Telegraph Department; Mr. H. Vickerman, representing the Council of Scientific and Industrial Research; Mr. G. W. Wyles, representing the New Zealand Railways; Dr. E. Marsden (Secretary).

The committee has drawn up detailed recommendations and estimates as to immediate requirements in connection with the standards laboratory. It is proposed to provide standards and equipment for measurements of engineers' gauges and of electrical apparatus and measuring instruments of various kinds, also for the checking of thermometers and pyrometers, and for the measurement of the candle-power and efficiency of lamps, &c. At the present time there are no official electrical standards, or standards of temperature or of candle-power in the Dominion, and it is hoped that the new laboratory will fulfil what has now become an urgent demand.

*Standardization.*—With the development of New Zealand's secondary industries the question of standardization is becoming increasingly important. The need for adopting certain phases of standardization in the Dominion has been increasingly felt for some time, and during his recent visit Sir George Julius, Chairman of the Commonwealth Research Council, emphasized the importance of such measures and the benefits which had been derived from standardization in Australia. While it is necessary to have some executive body to carry the proposals into effect, it is fully appreciated that in the case of any particular product or material a request for standardization must first be made by the industry or industries concerned. It is not intended that standards should be forced on any industry, but that the necessary administrative machinery should be set up so that where the benefit of any particular standard is mutually recognized it can be given an official status.

An important conference of interested parties was held on the 4th July, when a scheme recommending, in general, the adoption of British standards was approved, and a local committee, established to act as a liaison body with overseas standardizing associations, was constituted. Modifications of British standards, such as will enable them to be made of greater application in New Zealand, will be brought to the notice of the British Engineering Standards Association.

#### FOREST BIOLOGICAL RESEARCH STATION.

Advisory Committee: Mr. C. E. Foweraker (Chairman), Mr. N. G. Gribble, Mr. A. J. Seed, Mr. F. W. Foster, Mr. Owen Jones, Mr. C. M. Smith, Professor T. H. Easterfield. Director of Research: Dr. D. Miller.

##### FIRST ANNUAL REPORT.

By A. F. CLARK, Forest Entomologist.

*Buildings.*—The erection of a suitable building in reinforced concrete has been undertaken by the Cawthron Trust Board. When completed, it will contain three small laboratories, one large general laboratory, and a library and committee-room. It is expected that possession of the building will be obtained in May; in the interim the staff is being housed by the Cawthron Institute.

*Staff.*—The staff consists of Dr. D. Miller, Director of Researches; Mr. A. F. Clark, Forest Entomologist, seconded from the State Forest Service; and Mr. L. J. Dumbleton, Assistant Forest Entomologist.

*Equipment.*—The equipment for the Forest Entomologist and Assistant Forest Entomologist was brought by Mr. Clark from the State Forest Service, and arrangements have been made to purchase further apparatus in Europe. Use has been made, where necessary, of the Cawthron Institute insectaries, pending the erection of those to be used solely for forestry investigations.

*Researches.*—The programme of researches during the past year has been a wide one. Good progress has been made, and the results secured have been most satisfactory. In view of the large afforestation schemes which are being developed by the State Forest Service and many private companies, the investigations have been mainly into the insect pests of exotic timber-trees. Minor routine studies of matters affecting the indigenous timbers, however, have been carried out during the year, and preparations made for further extending the programme to embrace the more outstanding of the problems connected with the growth and utilization of the native timbers.

*Insect Survey.*—The insect survey has as its object the collection of data upon the distribution and degree of infestation of insects affecting exotic timber-trees. Of necessity, as much matter concerning site factors, growth, and the silvical treatment of the various stands must be procured at the same time; in fact, while the prevalence and degree of damage caused by insect pests is measured, all the factors which enable the conditions so measured to obtain must be noted and weighed. The survey has been extended this year to the Auckland and Rotorua districts. The latter district contains the largest area under exotic trees in the Dominion. While much valuable data were obtained, the field-work undertaken in the Rotorua district is only considered to be a preliminary reconnaissance in preparation for more intensive work next year. To facilitate this further work the establishment of a permanent field station has been decided upon. The survey is considered to be a vitally important part of the researches, the results determining to a large extent the particular pests upon which investigations shall be carried out.

*Sirex juvenicus.*—The control of *Sirex juvenicus* by use of the ichneumonid parasite *Rhyssa persuasoria* has been undertaken. During the year consignments of this insect have been received from Farnham Royal, and from these adults have been successfully reared. No difficulty was