

technique of field-strength measurement has now been more or less standardized, but local differences in terrain and topographical peculiarities make it essential that such data should be obtained in each country where broadcasting is being developed. Mr. G. Searle has been seconded for this investigation and has been working under the supervision of Mr. J. R. Smith, engineer of the National Broadcasting Service. A good start has been made on measurement of field-strength contours of North Island broadcasting-stations, and, in particular, of 2YA. A considerable amount of work has also been carried out to determine the distortion in the field produced by obstacles of various types—hills, trees, buildings, fences, &c. Some very interesting results have also been obtained relating to the standing wave effects which are induced in the electric-power and telephone-reticulation networks.

TOBACCO RESEARCH.

Advisory Committee: Dr. E. Marsden (Chairman), Sir Theodore Rigg, Mr. J. A. Campbell, Mr. I. J. Schmitt, Mr. I. Hamilton, Mr. C. C. Nash, Mr. J. F. Balek, Mr. B. T. Rowling, Mr. F. A. Hamilton. Tobacco Research Officer and Secretary, Mr. J. M. Allan.

During the year a Tobacco Research Association was established along lines similar to those adopted in the Research Associations already established in the wheat, dairy, wool, and leather industries.

In December, 1935, representations were made to the Hon. the Minister in Charge of Scientific and Industrial Research by the Nelson Provincial Tobacco Growers' Association that, in view of the increasing prevalence of disease in tobacco-plants and the necessity of experimenting with types and varieties suitable for culture in New Zealand, consideration be given to the establishment of a Tobacco Research Station in the Nelson province.

Following this and other representations the Secretary of the Department of Scientific and Industrial Research and the Director of the Cawthron Institute met the Tobacco Growers' Association executive at Motueka on 3rd February, 1936. It was agreed that—

- (a) The Motueka-Riwaka District was the most suitable district in New Zealand for the establishment of a research station with tobacco culture as its main object.
- (b) The activities of such a station could be extended to cover the requirements of the hop and small-fruits industries.
- (c) The requisite finance could be supplied by the industry and the Government by an arrangement similar to that under which the existing Research Associations for other industries were financed. The simplest method of finance and collection would be the setting-aside of portion of the levy defined in the Tobacco Industry Act, by Order in Council, to use for this purpose.

In April, 1936, the Council of Scientific and Industrial Research discussed tobacco-research schemes, and approved the proposals for a Research Association.

The establishment of the Tobacco Control Board by Act of Parliament in 1935, with funds at its disposal to defray the cost of administration and other work of the Board, suggested that the Board might actively assist in the establishment of tobacco research and in the provision of funds for this purpose. Accordingly, negotiations were opened with the Board, which decided to make a grant calculated at the rate of $\frac{1}{8}$ d. per pound on the 1935-36 season's crop and a further grant calculated at the same rate in respect of the 1936-37 crop. The Board also intimated that it would be prepared to make further grants on a similar basis up to and including the 1939-40 crop.

In January, 1937, advantage was taken of the visit of Professor A. E. V. Richardson and Dr. B. T. Dickson, of the Commonwealth of Australia Council for Scientific and Industrial Research, to discuss the need for tobacco research in New Zealand. After visiting the Motueka-Riwaka area they strongly emphasized the necessity for the immediate establishment of a research station in the district.

At the request of the Department of Scientific and Industrial Research and the Cawthron Institute, Sir Theodore Rigg visited Australia in April to study tobacco culture and obtain information on the organization of tobacco research.

The first meeting of the Tobacco Research Committee was held at Riwaka on 11th June. At this meeting Sir Theodore Rigg presented his report, and the Committee agreed to the general proposals outlined therein. It was decided to secure a suitable area of land, preferably in the Motueka-Riwaka district, and to invite applications for a specialist officer who would take charge of the work located at the Research Station. In addition, it was decided to recommend to the Minister in Charge of Scientific and Industrial Research that a grant of £500 per annum from the funds available for tobacco research be made to the Cawthron Institute for the investigation of certain aspects of tobacco-seed and mosaic investigations, as well as studies relating to the nutrition and quality of tobacco.

Proposals for a more detailed survey of tobacco soils were discussed by the Committee, and Sir Theodore Rigg was empowered to make the necessary arrangements to have the work done.

At the next meeting of the Committee Dr. Marsden reported that Mr. J. M. Allan, B.Sc. Agr., M.D.A., formerly of the Council for Scientific and Industrial Research, Australia, had been appointed Tobacco Research Officer to take charge of the work at the Research Station. Mr. Allan took up his duties at the end of November, 1937, and immediately proceeded to make contact with the industry.

A sub-committee was appointed to arrange for the lease of an area of approximately 20 acres for the tobacco-research station. An agreement to lease approximately 18½ acres of land at Motueka was finally made, possession to be given on 1st May, 1938.