

control of which the Committee is represented. Industrial liaison officers have been appointed in Auckland, Christchurch, and Dunedin, and they have achieved good results in making industry aware of scientific developments and of the assistance available from the Department.

Many other activities of a wider general nature, in furtherance of its policy of ensuring the maximum scientific and technical service to industry of the resources of the Department, have engaged the attention of the Committee.

NEW ZEALAND RADIO RESEARCH COMMITTEE

During the year the Committee has continued its work of co-ordinating the radio research of State Departments, the University colleges, and the Carter Observatory. A number of projects sponsored by the Committee are in operation or are pending. These include the following investigations: reflections from the D region, at Canterbury University College; oblique incidence ionosphere studies, at the Dominion Physical Laboratory; short-wave directional propagation, at Seagrove Research Station; and a programme of auroral photography, at Carter Observatory.

The Radio Research Office of the Dominion Physical Laboratory has continued its correlation work, and a series of progress reports is now being issued.

Nine papers were presented, through the Committee, to the British Commonwealth Specialist Conference on Radio Research in London, and to the General Assembly of International Scientific Radio Union held in Stockholm during the year. The recommendations of these two gatherings and of the plenary assembly of the International Committee on Radio Communications (CCIR) have been put into effect in New Zealand.

(See also report of Dominion Physical Laboratory on p. 26.)

TOBACCO RESEARCH

Director: MR. R. THOMSON

The past season has not been entirely favourable for the growth of the tobacco crop. Rainfall for the spring months was below the average, and although this enabled the preparation of the land to be carried out early, it resulted in the soil being rather dry, with little or no reserve moisture. A showery November made for good planting conditions, but was followed by a dry spell. Considering the dry condition of the land the summer rainfall was insufficient. This was confirmed by the excellent growth of the irrigated crops. Temperatures during the season were not extreme, but some cool nights were recorded. The Station crop, along with others in the district, suffered from a severe hailstorm on 26th January: frosts late in March caused further loss of leaf and there was more wind than usual, particularly during the early summer.

Owing to the adverse effect of flooding, the crop from the 1947/48 season was light, 14,320 lb. of leaf being harvested from $14\frac{1}{2}$ acres. The 1948-49 crop will also be light as the result of hail damage.

SOIL STERILIZATION

In addition to the Station requirements, 400 yards of soil for seedling beds were steam sterilized for growers. This is an increase on any previous season. Most of this soil was used in beds which were subsequently direct seeded, indicating that growers are becoming more alive to the advantages of this practice in the control of mosaic.

SEEDLING-BED TREATMENTS

In an experiment to test the efficacy of various chemical treatments of the seedling-bed soil for the control of weeds, none proved as satisfactory as steam, although chloropicrin and calcium cyanamide brought about some reduction in weed population. In a trial of fertilizers for the treatment of seedling beds, 1 lb. per square yard of standard mixture proved superior to $\frac{1}{2}$ lb., or to $\frac{1}{2}$ lb. with supplementary nitrogen.