

The possible correlation of soil characteristics with disease incidence has been examined. Although hop plants invariably show some dead roots, the growth of plants is apparently not affected on well-drained sandy loams, or loams underlaid by gravels at a depth of 12 in. to 18 in. Gardens seriously affected with root disease were located on soils of heavier texture, with poorer drainage, or on sandy soils with a somewhat high water-table. There is little doubt that the increasing demand for light soils for flue-cured tobacco is restricting hop culture to the heavier, less well-drained soils.

Value of Chemical Disinfectants for the Treatment of Disease-infected Gardens.—Chloropierin and D-D are being examined as possible chemicals for sterilizing infected soils so that diseased hillsides can safely be replanted with new sets. The therapeutic value of the materials cannot yet be assessed, but it was noted that chloropierin caused some temporary retardation of hop growth early in the season. Supplementary small-scale tests in bins have also been made with naturally infected and artificially infected soils. Direct application of chemicals to hop cuttings before planting is also being tried.

Crown Disinfection of Hop Plants.—Information is being sought on the value of chemical disinfection of the crown of hop plants at the time the crown is exposed for pruning in the spring. Of seven materials tested, three have injured the plants.

Tasmanian Hop Cuttings.—Hop cuttings of the varieties Kent Golding, White Bine, and Lates were imported from Tasmania by the Committee, and were planted in isolation at the Dominion Horticultural Station at Levin.

On subsequent inspection a leaf mottling—suggestive of virus—has been found in Kent Golding, but not on White Bine or Lates, although these latter may be symptomless carriers of mosaic. Two types of symptom suggestive of other virus diseases have been noted in a few plants of White Bine and Kent Golding. In the circumstances, the plants cannot yet be safely introduced into the Nelson district.

MANUFACTURERS' RESEARCH COMMITTEE

Secretary-Executive Officer: Mr. R. T. WRIGHT

The Committee has continued to give advice and active assistance in the application of scientific research by New Zealand's manufacturing industries, and close relations have been developed and maintained with the New Zealand Manufacturers' Federation and its district and trade associations.

Research Associations.—These co-operative associations, which are accorded a pound-for-pound subsidy by Government, have proved to be the most satisfactory method of ensuring industrial interest in scientific research, and the response of manufacturers to the development of these associations when incorporated has been most gratifying. The Committee has maintained a close contact with these associations, and during the year has sponsored the reorganization and incorporation of the New Zealand Leather and Shoe Research Association.

Industrial Research Fellowships.—Cabinet has approved in principle the inauguration of industrial research fellowships for those industrial groups that are either too small or have insufficient community of interest to warrant the establishment of research associations. A suitable scientist would be engaged to work in an approved laboratory on the special scientific problems of the sponsoring group, the Government contributing half the cost. Negotiations with a number of interested groups are in progress.

Servicing of Industry.—Assistance to industry in scientific and technological matters has been maintained by the Dominion Laboratory, the Dominion Physical Laboratory, the Auckland Industrial Development Laboratories, &c. Active assistance to the South Island manufacturers is being developed through the establishment of an Industrial Development Division at Canterbury University College, in the advisory and financial