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THE NEW ZEALAND PLANT RESEARCH STATION.

CURRENT MYCOLOGICAL INVESTIGATIONS.

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THE Plant Research Station was established at Palmerston North last April as the result of an arrangement arrived at between the Department of Agriculture, the Scientific and Industrial Research Department, and the Massey Agricultural College. The present control of this organization is vested in a committee composed of representatives of the two Departments and the College, with, in addition, members representing the commercial and farming interests of the Dominion.

The Station has been instituted primarily with a view to conducting on scientific lines investigations into problems affecting agriculture in its widest sense. Thus all problems affecting the production of agricultural crops and crop products (as seeds), horticultural crops, grasslands, and forest stands (both exotic and indigenous) come within the scope of the Station. At present special attention is being paid to the production of disease-free nucleus lines of pedigree agricultural seeds; to the furtherance of seed-production on a commercial scale; to the extension of seed export; to the systematic study of the New Zealand flora, both phanerogamic and cryptogamic, indigenous and introduced; to the improvement of pastures and pasture plants; and to the study of all plant diseases occurring within the Dominion.

This article deals specially with the plant-disease work at present being undertaken by the mycological staff of the Station. As one of the objects aimed at is the production of disease-free pedigree nucleus lines of agricultural seeds, this phase of the work is closely associated with the work of the Agronomist; for he has first to produce lines of pedigreed seed before the matter of rendering such disease-free can be undertaken. Experience of the past few years has shown that, in New Zealand at least, the annual losses due to plant-diseases are so great that profitable farming is dependent on successful disease-control.

Now, as the majority of diseases of agricultural crops (and others, too, for that matter) are seed-carried, it follows that the best method