

of very considerable age, whereas that of the latter is of very recent origin, and its actual commencement can be seen in many parts of New Zealand. In addition to this, the vegetation of natural fern-land is much easier to eradicate than that of artificially induced fern-land. In certain cases quite light stocking of primitive fern-land has resulted in the eradication of the fern, as, for instance, in the Te Kuiti district, where fern-land has frequently been successfully broken in and the fern got rid of by stocking with milking-cows alone. Artificially induced fern, when properly established, could not possibly be dealt with in this way. The greater difficulty of dealing with induced fern is probably due to the fact that much natural fern-land, especially where tutu is becoming abundant, is in one of its later stages of development before the land again becomes clothed with forest, and the fern is naturally not so aggressive as when in the stage immediately following its successful invasion of previously forested country.

The grass-lands that have been converted from the type of heath I term natural fern-land are of very considerable extent, comprising some two million acres, the larger portion being located in the east coast region of the North Island, and also in the southern portion of the Auckland Province. Much that has been converted for many years—and this is particularly true of large areas in Hawke's Bay—no longer shows any signs of ever having been covered with a dense growth of fern, but the ready development of the plant on unutilized land adjoining such grass-lands shows clearly the previous condition of the land. During the past few years there has been a great extension in the work of converting fern-land in the King-country, and large areas still remain to be transformed into pastures. In this district all stages in the conversion of fern-land into grass can be seen—from those where the dominance of the fern is quite unaltered to those where fern is apparently quite non-existent.

With regard to the eradication of fern on artificially induced fern-land much work has been accomplished, and many hundreds of thousands of acres where fern had attained the mastery over grasses sown on bush-burns have been more or less cleared of the weed. In many places, however, such as the Marlborough Sounds, artificially induced fern-land covers large areas, and the eradication of the fern is yearly becoming more difficult. Theoretically, induced fern should not exist, provided proper methods to avoid its establishment were carried out, and it is probable that with a better knowledge of the necessary initial treatment of bush-burns the development of artificially induced fern could be enormously diminished.