

some system of annual forage-plant cropping, combined with temporary pastures largely composed of Italian rye and cow-grass, may have to precede any final resowing of a permanent nature. On level land, temporary pasture, fed on during autumn and winter, shut up for a double crop of hay—first cut rye-grass and second cut red-clover hay—should prove very useful. Such temporary pastures may in many localities last two years, and in the autumn of the second season be heavily seeded with a cocksfoot mixture, a light disking and harrowing being perhaps a sufficient preparation for a seed-bed in certain localities. Many modifications naturally suggest themselves, but all the operations preceding the final sowing must pay for themselves, and at the same time be directed towards the weakening of the thistle by either fallowing, mowing, or very heavily stocking the thistle areas during the main period of growth (November to February). The general clearing of land of this description in order to facilitate ploughing is, however, the first consideration.

(4.) *On Grass Land permanently incapable of being ploughed.*—On such land no direct mechanical methods of control should be attempted. When a farm consists solely of such country very little can be done except by subdivision and heavy stocking at definite periods. The capabilities of top-dressing should never be lost sight of, especially to secure good autumn, winter, and spring growth of grass during the dormant period of the thistle. This will thicken up the sole, probably the most important of all means of indirect control of weeds. The burning and surface sowing of thick patches of thistles in the autumn with vigorous-growing grasses and clovers should be studied in this connection.

(5.) *On Grass Land of extremely poor Carrying-capacity.*—On such land no control of any sort is advisable, as thistles on such land, provided they will continue to grow, do more good than harm, and may finally lead to the production of quite fair grass land.

All the other weeds reported in the circulars are being dealt with seriatim, and when completed some quite useful information will be gathered together. It will, at any rate, serve as a most valuable foundation on which to base a proper weed-survey, a work that is at present even more essential than any immediate alteration of the Noxious Weeds Act. One fact, however, is patent, and that is, weed-control in New Zealand must have as its immediate object the lessening of damage to the land actually occupied by weeds, or, as it may be expressed, the proper breaking-in of weed-infested country where feasible. The great sheet-anchor of the *in toto* supporters of the present Noxious Weeds Act—that its objective is the protection of clean country by the cutting-over of infested land—must be partly abandoned. With proper attention the clean land can be kept clean, but this cannot be done merely by attempting to stop the spread of weeds from affected country by cutting them. Over vast areas of New Zealand the cost would be prohibitive. The aim of all future weed-control is individual effort directed towards reducing the effects of weeds on individual holdings. No single method of control is possible, but with the employment of sound methods of farm practice directed towards weed-repression the individual will greatly reduce his loss by weeds, and if well-thought-out methods of repression varying in accordance with soil, climate, and the method of soil-utilization are generally adopted the weed problem will gradually disappear. All this demands a clear knowledge of the weeds of New Zealand, and the first essential is a properly conducted weed-survey, which in my opinion would be of far greater immediate value than a soil-survey, and might indeed pave the way for the carrying-out of such work on a truly practical basis.

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