

Dealing with the lands included in class 1, the treatment recommended for the heavy clay lands is as follows: The land should be first cleared of all scrub which cannot be ploughed in, and all potholes filled in. Where necessary, drains should be cut, and filled in with tea-tree if tiles are not available at a reasonable cost. The land should then be ploughed to a depth of at least 6 in., and afterwards left to fallow for a period of from six to twelve months. After fallowing, it should be well worked down, reploughed, and topdressed with carbonate of lime, if obtainable at a reasonable cost, at the rate of at least $\frac{1}{2}$ ton to the acre. A crop of turnips or some other annual, should then be grown, and when this has been fed off or ploughed in, as may be deemed expedient, the land should be reploughed and left to fallow, and afterwards should be worked again during dry weather, and prepared for sowing down in permanent pasture. The following grasses are considered suitable: Italian rye, perennial rye, cocksfoot, crested dogstail, paspalum, timothy, red clover, alsyke, white clover, *Lotus major*. A mixture of manures at the rate of 3 cwt. to the acre should be sown with the seed. If basic slag can be obtained at a reasonable cost, a quantity of 4 cwt. to the acre gives the best results. Failing this, a mixture of equal parts of bonedust and superphosphate may be used.

For the light sandy loams, the land should be cleared, and the holes filled in as mentioned before, preparatory to ploughing. Shallow ploughing is necessary in breaking in this class of land, and care should be taken not to turn up the subsoil where it is of a sandy nature. An annual crop, either for feeding-off purposes or for ploughing-in, is advisable before laying down in permanent pasture. A suitable mixture of grasses is as follows: Italian rye, brown-top, *Paspalum dilatatum*, *Lotus angustissimus*, *Danthonia pilosa*, red clover, crested dogstail, white clover. Manure at the rate of at least 4 cwt. to the acre, consisting of blood and bone, or bone and superphosphate in equal quantities, should be sown with the seed.

A cheaper method of dealing with these lands is by surface-sowing with danthonia, or a mixture, according to the quality of the land, of danthonia, paspalum, and *Lotus angustissimus*, the grass-seed to be sown soon after burning. To save expense, strips or patches could be sown at short intervals, and by systematic burning every two years the grass will spread rapidly. As the grasses become established the land will carry a certain amount of stock, and steadily become improved, and so in a measure prepared for the more thorough treatment by ploughing and manuring above described. In surface-sowing these lands an important factor is the cost of the seeds at the time. Considering the returns that can be had from the expenditure, it is not considered advisable to sow a mixture of grass-seeds costing more than 15s. per acre.

There was a great diversity of opinion among the witnesses examined with regard to the best methods of treating these lands, not only as to the nature of crops to be grown, but also as to the mixture of grass-seeds and the manures to be used. Several witnesses gave instances of successful results from using the methods advocated by them. There was, however, a general agreement that in working these lands it is necessary that there should be deep ploughing, thorough working, and a long fallow.

With reference to the lands in class 2, which are generally poor, improvement by surface-sowing as described above is the only treatment which at present can be recommended.

With regard to the lands referred to in class 3, there are many areas of first-class swamp land well adapted for farming purposes included in the kauri-gum reserves, as well as large areas of kauri-peat-swamp land. It is very desirable that the best of these lands should be brought into profitable use as soon as possible.

One particular area inspected by us is known as the Motutangi Swamp, situated about five miles south of Houhora, in the far North. The swamp contains an area of four or five thousand acres, most of it excellent raupo country, and in every respect suitable for settlement purposes. This swamp could easily be drained, and there is an urgent demand by the people in the district that Motutangi should be made available for settlement at the earliest possible date. We were informed that certain portions of this area contained gum in payable quantities. If this is