

Of the grasses which have been comparatively successful, Chewing's fescue takes first place, followed by *Danthonia semi-annularis* and *Festuca elatior*, the latter, unfortunately, being a host-plant of ergot, and consequently undesirable for extended cultivation.

The results of these experiments, in conjunction with those carried out in tree-planting on the north end of the same plains, proves conclusively that, while grass-growing is impossible, trial forestry operations have been highly successful. All coniferous trees sufficiently hardy to withstand the rigorous climate have succeeded beyond expectation, and it is a matter for consideration whether extensive plantations should not be started here in the near future. I believe the area of these plains held by the Crown totals over a million acres, all of which is not only capable of producing timber of the best quality, but by the beneficial effects resulting from an annual shedding of leaves, extending over probably eighty to a hundred years, will eventually render them suitable for pastoral if not agricultural settlement.

HANMER SPRINGS PLANTATION, NORTH CANTERBURY.

(Area, 600 acres—approximate.)

During June last a commencement was made to enclose portion of the Hanmer Springs Reserve for forestry purposes. The land selected is generally poor and stony—exceedingly dry in summer—but, nevertheless, capable of growing a wide range of forest trees suitable to the climatic conditions. A considerable amount of manuka and other scrub covers the drier portions of the ground, with occasional patches of tussock on richer parts. Several swamps (which can be easily drained and rendered fit for moisture-loving trees, such as alder) occur towards the southern boundary, adjoining the Percival River.

The work to date has been confined to clearing fence-lines, erecting fence, and clearing about 100 acres of scrub preparatory to pitting for trees later on. A substantial fence, consisting of one post and seven standards per chain, 42 in. by 1½ in. mesh by 16 gauge wire netting sunk into ground 6 in., with one barb wire on top, has been partially erected, and four 10 ft. iron gates have been placed at convenient intervals to give entrance to various parts of the reserve.

The western boundary adjoins Dog Creek, which is some 60 ft. below the terrace on the northern end, whilst at the lower end the land gradually falls to the creek-level. Between the river and top of terrace is the only steep and broken portion of the area. Preparations have been made to plant acorns *in situ* here, at 3 ft. apart.

For planting next season some one- and two-year-old trees have been sent from Tapanui Nursery. These were lined in in a temporary nursery, and annual supplies of similar trees will be brought here and treated as above, as it is necessary to acclimatise them before planting out permanently, besides saving additional cost of sending large trees such a distance per rail and coach. Those already received have done exceedingly well, considering the frequency of high drying winds experienced during the summer.

A travelling whare, 12 ft. by 8 ft., has been procured for the Forester in charge, which can be moved from place to place as the works demand.

Amongst plantations in the district it is found that the English larch succeeds best on the drier lands, and *Abies douglasii*, *Abies menziesii*, and oak on the fairly moist portions. These trees will be the principal ones dealt with, and shelter for them will be produced by planting English birch and *Pinus insignis*.

Prior to the 1st September the planting of Hanmer Springs Water-race Reserve and the area for the proposed new Sanatorium was under control of this Department, and on both these places a considerable amount of work was done in clearing, fencing, and planting. On the date mentioned the above were taken over by the Tourist Department.

TOREA NECK RESERVE, MARLBOROUGH.

(Area, 26 acres.)

This reserve was originally set apart for the purpose of allowing communication between Queen Charlotte Sound and Kenepuru Sound, and is the main thoroughfare between Picton and Pelorus Sounds. The reserve was leased by the Marlborough Land Board to a settler for grazing purposes, who felled and partially burnt the whole area, which was formerly covered with native bush.

A most pernicious weed, known as St. John's wort, was unfortunately not kept in check by the lessee, with the result that the whole area was one mass of dense undergrowth. The eradication of this weed has been a very costly item owing to its deep-rooting nature and the difficulty of burning it. Further, it has been allowed to seed for some years, and the whole of the land is thus thickly strewn with small seedlings immediately after being disturbed by grubbing up the larger tufts.

In several deep gullies large quantities of fallen timber were lying in a half-decayed and sodden condition, causing considerable labour in burning.

The following works have been carried out to date: Clearing and burning about 15 acres of St. John's wort, logging and burning 7 acres of fallen timber, forming 25 chains of 6 ft. paths, and the erection of 50 chains fencing of posts and wire netting.

The expenditure to date amounts to £141 16s. 5d.

RAINCLIFF PLANTATION RESERVE, SOUTH CANTERBURY.

(Area, 206 acres 3 roods.)

This plantation was recently acquired by Government as a State forest at a cost of £812 10s.—barely £4 per acre, which is little more than the value of the land—including over 200 chains of fencing. The plantation is distant twelve miles from Pleasant Point and thirteen miles from Fairlie. The land is mostly steep hillsides with deep valleys, soil rather poor in quality, but open