

DUSKY HILL PLANTATION, OTAGO.

(Area, 845 acres; altitude, 400 ft. to 800 ft.; commenced operations, 1898.)

(F. Benfell, Plantation Foreman.)

The weather conditions prevailing here during the past year were very favourable for tree-growth generally. A total rainfall of 32 in. was distributed over 134 days, and the absence of severe frosts was conspicuous.

Steady uniform progress may be noticed in all pine, larch, and oak blocks; but, contrary to expectations, the shelter and humidity provided by the fast growers is having little effect upon the Piceas occupying elevated positions, and the work of replacing these unsuitable trees with other varieties that are succeeding under similar conditions will be continued. The older portion of this plantation comprised various deciduous and evergreen trees in mixture. An early suppression of ash and Piceas permitted the larch and few Douglas firs to grow freely, and after seventeen years' growth the remaining trees have almost sufficient growing-space to permit of the desired girth-development. It is interesting to record the fact that a large number of larch fencing-posts, required for enclosing the reserve at Greenvale, were cut from this block, and with the coming dearth of timber in this district there is no doubt that the disposal of larch saplings for fencing and firewood purposes will be a payable proposition.

The expenditure during the year amounted to £234 3s. 10d. Such works as replanting, tree-pruning, removal of coarse growth from around young trees, cutting tracks, keeping fire-breaks in an efficient state, and general caretaking-work were undertaken by the one man employed, whilst assistance was procured occasionally in the various phases of sheep-management. The grazing proposition was again quite successful, and the flock is gradually attaining bigger dimensions. The lambing percentage exceeded 100, whilst the net return from our wool-sales realized £40 9s. 5d. All fire-lines have been much improved by the presence of the sheep, which do no harm to the trees. This plantation, which borders the Pomahaka River, is becoming very popular as a picnic resort, and during public holidays it is necessary for at least one man to patrol the river reserve in order to suppress any outbreak of fire that might arise from the carelessness of visitors.

GREENVALE PLANTATION, OTAGO.

(Area, 5,169 acres; altitude, 700 ft. to 1,200 ft.; commenced operations, 1917.)

(R. G. Robinson, Superintending Nurseryman, South Island.)

Towards the latter part of the year it was decided to undertake the afforesting of Run 212G, which is situated about five miles in a westerly direction from Heriot. Generally the area consists of rough fern and tussock-clad hills intersected with steep gullies, and possessing surface soil and substratum of a strong argillaceous nature. Over a large proportion of the block the early preparation of pits will be necessary so that frost-action on the upturned soil will effect the desired pulverization. The contour of the country renders the laying-off and formation of fire-breaks difficult, and assistance was secured in this direction from a departmental surveyor. It is only reasonable to anticipate that the working-costs here will exceed that recorded at other stations, although particularly vigorous tree-growth may be expected throughout the eastern slopes and gullies. The work of enclosing about 770 acres is now proceeding. Efforts to have this labour performed by contract were unavailing, and finally the whole working-gang was employed constructing the three miles and a half of boundary-fencing, which is now nearing completion.

Camp-formation.—To provide accommodation for about twenty men two large unused huts, each 20 ft. by 12 ft., were drawn by engine from Conical Hills and two smaller buildings from Pukerau. In addition four new huts, 10 ft. by 12 ft., were constructed at a cost of about £30 each. A quantity of old iron in stock was utilized in constructing a serviceable shed for various purposes, and the whole camp is now compact and comfortable. For the resident foreman, Mr. W. J. Dunnet, a neat four-roomed cottage, containing the usual conveniences, is also nearing completion. This building has been erected chiefly by nursery labour, and when finished should cost about £200.

Every effort will be made to plant out here during the approaching season 700,000 trees. Expenditure to date, £468 0s. 4d.

RANFURLY NURSERY, CENTRAL OTAGO.

(Area, 49 acres; altitude, 1,400 ft.; established, 1896.)

(W. T. Morrison, Nurseryman in Charge.)

Climatic conditions experienced during the past season have been anything but conducive to successful nursery-work, a very dry period having occurred just at a time when moisture was most needed. Although the actual precipitation was slightly above that of last year, the months of December and January were exceptionally dry. The total rainfall for the year was 16.21 in.

Lining-out operations were commenced on the 8th September, and completed on the 27th October under rather trying conditions both as regards labour and soil. The amount of labour was inadequate, and the soil was in a rather dry state; in fact, only two or three light showers were experienced during the whole operation. The area used for the purpose has been recently brought into use, and the ground was necessarily not in such a fine state of cultivation as is