

At Dusky Hill and Conical Hills Plantations fires are most likely to originate from the fringing Pomahaka Reserve, and there is no doubt that an immense amount of benefit would be derived from the presence of any stock there, provided the animals were not permitted to wander over the planted areas.

#### FREE AND PRISON LABOUR.

The amount of free labour absorbed by the nursery and plantation work was 69.5 men, which is somewhat in excess of former years. This was not unforeseen, as the numerical strength of the prison camp became unavoidably curtailed through more urgent work requiring to be attended to elsewhere. After due allowance for domestic and other camp duties, 7.31 prisoners have been available for plantation-labour, and the annual value of their work is computed at £56 14s. 2d. per man.

It cannot be claimed that the ground being operated upon at Hanmer Springs is eminently suitable for the utilization of prison labour, as the gravelly nature of the surface forbids the rapid preparation of pits, so noticeable amongst gangs operating on the light pumice lands. The former high quality of the work performed, however, has been maintained, and the success achieved is in a great measure due to the officers of the Justice Department, who are keen to accomplish favourable records.

The difficulty heretofore experienced in securing suitable tree-planters was not repeated this season, but probably the adoption of contract-work, when practicable, makes the labour more attractive to workers.

#### ADVISORY WORK TO PUBLIC BODIES.

The increasing solicitations from Domain Boards and private persons for advice relative to tree-growing generally have been attended to with despatch. Every effort is made to transmit information to applicants, whose desires for demonstration of the methods adopted by the Department are acceded to when possible.

Much interest and capability were displayed by the Burnham Industrial School boys during the progress of the preliminary seed-sowing and "lining-out" work. Under departmental supervision, very fair results were attained, and, by adhering to the system advocated, the institution should be easily able to produce the desired number of trees for the proposed plantation extension.

About a thousand appropriate native trees and shrubs were planted on Pudding Island, in Otago Harbour, and have succeeded beyond expectation. As may be expected, the greater proportion of the failures is attributable to "wind shaking"; but the isolation of the planted area forbade the almost constant attention in the way of "firming," so essential in the creation of well-grown shrubberies or plantations occupying highly exposed positions.

#### GENERAL.

Computing on the present planting basis, sufficient ground is available at both Naseby and Conical Hills Plantations for some three or four years; at Hanmer Springs, however, the ground enclosed will only meet requirements for another year, and the early resumption of an additional area for extension purposes is advisable.

The correspondence was somewhat larger than usual, some 2,818 inward and outward letters and reports being recorded, and necessitating the usage of postage-stamps to the value of £16 6s. 2d.

Beyond the retirement of Mr. L. B. Archibald, and the engagement of Mr. J. Hetherton as clerical assistant, no changes in the staff have been necessary, and I have to express my thanks to all officers for the efficient manner in which they have carried out their duties.

R. G. ROBINSON,  
Superintending Nurseryman, South Island.

#### TAPANUI NURSERY, OTAGO.

(Area, 120 acres; altitude, 500 ft.)

Our tree-raising work is influenced largely by climatic conditions, which during the past few years have been so changeable that it has been quite necessary at times to ignore previously recognized principles in conducting operations.

Rain fell on 159 days, with a total precipitation of 28.29 in. This record is about 9 in. below the annual average for the past eleven years, whilst over the same period an average of 146 wet days were experienced annually. Fortunately, no unseasonable frosts have had to be contended with; and to the extreme mildness of the winter months, during which only twenty-five frosts were registered, may be partially attributed the unusual measure of success attained generally. The highest shade temperature (90°) was recorded in February, and the lowest (25°) in July.

*Seedlings.*—It is gratifying to be able to state that exceptionally fine results have been achieved this season in each branch of our nursery-work. The initial seed-sowing labour was unavoidably delayed until the second week in October, when timely showers converted the arid surface-soil into a desirable state for the reception of seeds. Irregular germination resulted, owing to the consequent dry spell; but after a duration of about six weeks the seedlings were found to be evenly distributed throughout the beds, and now number close on three millions. The success of the *Larix europaea* is perhaps most noteworthy, as from 250 lb. of seed 2,000,000 trees were raised. A comparatively small sowing of 48 lb. of *Pinus Laricio* resulted in 320,000 sturdy plants; and this number, supplemented by surplus two-year-old seedlings of the same variety, will be ample to meet the next year's requirements.