

On a suitable place behind the sandhills an area of about 6 acres was planted with marram-grass. The portion first planted has done very well, but the later planting suffered greatly by the wind and dry weather, and cannot be considered a success.

A small experimental planting was made with twenty-six kinds of trees, and although the site chosen was on fixed sand the failures have been very great. The species which have done best are *Pinus radiata*, *Pinus densiflora*, *Pinus ponderosa*, and *Pinus austriaca*. The failures are due in many instances to the lateness of the planting and to the severe winds and dry weather following the planting. Further experiments will be made with the species which have failed by making an autumn planting in 1916. A broadcast sowing of seed was also made, and although the seed germinated well in every case, the wind and dry weather eventually killed out all the seedlings.

One man has been continually employed, and on occasions has had assistance.

The expenditure for the year ending 31st March, is as follows: Sand-reclamation work, erection of fences, &c., £160 3s.; supervision and clerical, £25: total, £185 3s.

REPORT ON AFFORESTATION OPERATIONS IN THE SOUTH ISLAND.

(By the Superintending Nurseryman for South Island, Tapanui.)

In presenting this annual report on afforestation operations throughout the South Island I have endeavoured to convey, in as concentrated a form as consistent with the importance of the subject, information that will enable you to comprehend the exact state of affairs. A glance at the meteorological charts supporting the brief reports on the various stations will convince one of the unusually trying time experienced in the raising of young trees. During the autumn, winter, and summer periods the lack of natural moisture rarely influences our work adversely if sufficient rains at fairly regular intervals are experienced throughout the spring months. An intensely dry spell extending over July, August, and September, however, so retarded the rooting process of seedlings that the prospects of even a reasonable percentage eventuating appeared unlikely. Fortunately the ensuing months were all that could be desired from a tree-raiser's point of view. Although the reduction in the working staff at a critical period permitted weed-growth to become prominent, and in fact even get beyond control for awhile, the timely employment of temporary workers saved the position, and the expected results both in quantity and type at least compares favourably with previous seasons' records. Perhaps it is noteworthy to record the experience of strong winds in a much lesser degree than ordinarily, and this fact alone will provide sufficient reason for the almost phenomenal development of certain trees specially commented upon from time to time throughout this report. What promised to be an interesting experiment with gums and poplars near Coalgate was marred by the late frosts of November, when grain crops in Canterbury were so much affected. The pines planted demonstrated their extreme hardiness; but very few of the half-hardy eucalypts recovered after their tender spring foliage had been blackened, and even *Populus deltoides* suffered severely, or was killed.

DEARTH OF SUITABLE LABOUR.

Since the outbreak of war the difficulty in securing suitable men for carrying on the afforestation-work has become more pronounced, and in the several districts where State tree-planting is in progress the exodus of men for the front also created a labour shortage in the farming community. The enforced unexpected release of a number of our employees during the latter part of spring, however, enabled farmers generally to improve matters by procuring the services of these temporarily disengaged men. With the advancing season's continued enlistments the labour proposition becomes still more acute, and it is indeed problematical if sufficient suitable workers will soon be available to carry through the Department's projected tree-planting scheme without interfering with those engaged in farming pursuits. Returned soldiers are being given preference when now engaging workmen; but it will be readily understood that the preliminary pitting-work on the exposed rough country now being operated upon is sufficiently arduous to tax even the sturdiest workers, particularly during winter and spring months, and the general employment of discharged soldiers at tree-planting work in wet districts cannot reasonably be recommended. Should occasion demand, however, the lighter duties of weeding, hoeing, &c., in nurseries, and easier forms of planting and maintenance-work on plantations, might with advantage be assigned to those worthy volunteers desirous of filling outdoor occupations.

During the year the daily rate of payment to workmen generally was increased from 8s. 6d. to 9s., whilst the status of seven long-service members of the staff was improved by the inclusion of their names on the official roll. Such consideration was much appreciated throughout the service.

RESERVATION OF LAND FOR TREE-PLANTING.

In adherence to the proposals outlined in the previous year, inspections were made of several extensive areas with a view to their resumption or acquirement for afforestation purposes. In the Otago District provision has been made for the reservation of 21,091 acres in the following localities: Omarama, 6,230 acres; Benmore, 12,179 acres; Galloway, 1,000 acres; Greenvale, 1,682 acres: whilst other runs with leases terminating in the near future will be reported upon from an afforestation point of view as convenience permits.