

sufficiently sheltered to enable them to develop properly. As soon as an officer can be spared several roads and access tracks will be surveyed and plans of the reserve prepared.

The average daily number of men employed during the year was 4.31.

Following is a record of rainfall and temperature for the year :—

Rainfall, Temperature, &c.

Month.	Rainfall.	Number of Days Rain fell.	Temperature.		Number of Days Frosts occurred.
			Minimum.	Maximum.	
1918.	In.		Deg. F.	Deg. F.	
April	13.01	15	34	76	..
May	3.58	13	32	60	1
June	8.10	13	34	60	..
July	6.97	15	32	56	8
August	1.68	9	32	60	2
September	10.40	10	34	66	..
October	10.41	18	34	68	..
November	1.81	6	36	76	..
December	2.80	8	33	78	..
1919.					
January	2.09	6	36	86	..
February	1.54	3	40	88	..
March	1.77	7	38	86	..
Totals	64.16	123	11

(2.) REPORT ON AFFORESTATION OPERATIONS IN THE SOUTH ISLAND.

(By D. J. BUCHANAN, Superintending Nurseryman for South Island.)

For afforestation operations generally the climatic conditions experienced during the past year have been particularly unfavourable, and it is doubtful if in any season during the past twenty years the raising and transplanting of trees has ever been conducted under such adverse circumstances. A winter of almost unprecedented severity was followed by a long period during which excessive moisture and low temperatures prevailed, the warmth so necessary to successful germination and the healthy growth of young plants being entirely wanting. Frosts were exceptionally severe in the early spring months, and occurred with considerable frequency until midsummer. In North Canterbury heavy gales were a feature of the summer months, which were characterized in Otago by extreme wetness. In the month of July a fall of snow occurred in the Hanmer Springs district to a depth of 4 ft. 10 in. on the plains, resulting in the complete suspension of operations for a period of two months.

Excepting for a slight retarding of growth no appreciable effects of the abnormal season are apparent amongst well-established trees, but a perusal of the reports from the different stations discloses the fact that the growing-percentages and development of the younger stock are slightly below the average standard.

During the year an additional area of 964 acres was planted, thus increasing the total area planted in the South Island to 11,530 acres.

TREE-RAISING.

Trees to the number of 1,309,700 were raised from seeds, and the total raised to date is 56,550,900.

Only a very limited supply of imported seeds was procurable, and as the only way in which the deficiency could be made up was by substituting Dominion-grown seeds, *Pinus radiata* in considerably increased quantity was operated with. At each of the nurseries very disappointing results have attended the sowing of this species, and, although this may be to a certain extent attributable to unfavourable germinating conditions, it is quite evident that the seed was of inferior quality. Fair results generally have been attained with the imported seeds, and the failure of *Pinus radiata* accounts for the comparatively small number of trees raised. As the nurseries all carry fairly heavy stocks it is not anticipated that the past season's partial failure will affect expansion work to any appreciable extent. The development of the transplanted trees in the nurseries is poor on the whole, and the removal of a considerable proportion to the plantations will in consequence have to be deferred for a further season. Had the usual vigorous growth been made it is practically certain that the available labour would have been quite inadequate to deal with the season's output.