

The first part of the planting season was extremely dry, and it was necessary to “puddle” the trees when they were received from the nursery. Even with these extra precautions it appeared at first as if the results would be far from satisfactory, but it is pleasing to report that a most successful season has been experienced. The trees have made good progress, and the death-rate does not exceed 8 per cent.

Experiments to determine the feasibility of raising forests by the direct sowing of seeds were conducted under four different methods, but in each case the results show that direct sowing in this district cannot profitably replace the present system of planting. *Pinus radiata* and *Pinus Laricio* were the species tried, and the methods were as follow: 1 lb. of seed was sown on half an acre of land in each of the first three experiments.

(1.) An area carrying a rather open growth of manuka scrub was chosen, and the seed broadcasted without preparing the land in any way. Result, total failure, not a single plant being got.

(2.) A similar area adjoining No. 1 was cleared and burned, and the seed broadcasted amongst the debris. Result, total failure.

(3.) After clearing and burning, the land was marked off in parallel rows, and the soil in each row was scarified to the depth of 3 in. The seed was sown in the loosened soil, and covered with a brush harrow. Germination was very sparse, and fully half of the seedlings died as the result of the subsequent dry, hot weather.

(4.) Half an acre was ploughed and harrowed and sown with a mixture consisting of 1 bushel of oats and 4 lb. of *Pinus radiata*. Germination was much better here than in No. 3 experiment, but still not sufficiently good to properly stock the land with trees. Here, too, the dry weather proved too severe for the seedlings, fully 50 per cent. succumbing.

Under any method of direct sowing there appears to be a tremendous waste of seed by birds, and by loss in seedlings after germination has taken place. To allow for these losses it would be necessary to make very heavy sowings, the cost of which would be prohibitive. Although the weather this year has been unusually dry the failures must not be altogether attributed to this fact. The variable spring climate of this high country is somewhat severe even on strong transplanted trees, and it cannot reasonably be expected that minute seedlings will flourish under such conditions. The question is an important one, and in order that the trials shall be absolutely conclusive further experiments will be made next year. There does not appear to be any doubt but that cultivation of the land is essential to success, and consequently the next trials will all be made on land which at the present time is ploughed and in readiness to receive the beneficial weathering effects of the coming winter.

This plantation area is being divided into blocks of about 300 acres, with 2-chain fire-breaks separating each block. It is intended to plough the 2-chain reserve and keep it bare for a few years, but a further precaution against the spread of fire will be taken by planting a chain-wide belt of poplars or other non-inflammable trees around each block of pines.

The water-supply for the prison camp caused much anxiety owing to the springs completely drying up in the month of February. No doubt the unusually dry weather experienced during the past two years has been the cause of the diminution of the water-supply, so that given normal weather-conditions the trouble is not likely to recur.

The rabbits, although not by any means plentiful, were responsible for some damage being done to the young trees, and it has been necessary to trap and poison them at intervals during the year.

The average number of free labour employed during the year was 2.25. Following is a statement of expenditure for the year along with other tabulated information.

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Schedule II.—Statement of Expenditure.

	For Year.			To Date.		
	£	s.	d.	£	s.	d.
Planting operations and maintenance—						
Tree-planting	434	2	4	474	14	4
Pitting	257	5	11	650	13	8
Clearing	22	19	4	318	8	10
Cartage of trees	23	15	0	32	15	0
General upkeep	64	0	8	206	2	8
General repairs	46	2	0	64	6	6
Horse-feed	90	13	1	91	18	1
Permanent works—						
Fencing				42	6	3
General formation	173	15	9	844	8	4
Buildings	9	17	5	1,372	19	6
Water service	2	4	0	484	5	1
Stock, implements, &c.—Tools and imple- ments	51	2	0	92	11	0
Supervision and clerical—						
Supervision of prison labour	467	0	0	860	7	9
Clerical assistance	42	0	0			
	1,684	17	6	5,535	17	0
Value of prison labour for which no payment has been made, apportioned in above items	76	4	6	685	19	6
Actual expenditure	£1,608	13	0	£4,849	17	6