

The nursery has been visited by a large number of people during the summer, and without exception the comment has been of an encouraging description, the growth of trees generally being rather better than might have been expected during the summer just past. The Californian red-wood has so far proved the most rapid grower of all exotic coniferous timber-trees.

Statements of expenditure and estimated values to date are attached, and details of all trees in stock will be found under Schedule C; also plan of nursery, showing location of crops, &c.

The following is the rainfall and temperature for the year:—

*Record of Rainfall and Temperature at State Forest Nursery, Rotorua.*

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1899.			Degrees.		Degrees.	
April ... ..	2.12 in.	15	71	1st and 2nd	33	16th
May ... ..	7.67 in.	14	65	7th	23	18th
June ... ..	3.34 in.	8	67	4th	24	25th
July ... ..	5.18 in.	15	57	18th	21	16th
August ... ..	3.10 in.	11	64	19th	28	7th
September ... ..	2.19 in.	12	70	9th	29	12th
October ... ..	4.86 in.	22	74	28th	32	14th
November ... ..	4.29 in.	14	81	9th	35	8th
December ... ..	1.65 in.	8	88	28th	36	18th
1900.						
January ... ..	1.74 in.	5	93	31st	32	6th
February ... ..	2.40 in.	10	90	1st	31	12th
March ... ..	1.27 in.	9	84	20th	42	11th and 12th
Total ... ..	39.81 in	143 days.				

**DUSKY HILL PLANTATION RESERVE** (Area, 845 acres; Altitude, 500 ft. to 1,000 ft.).

During September and October last 17,600 trees (details of which are given in Schedule B<sup>3</sup>) were transferred to this plantation from the Tapanui Nursery. The "pits" for their reception, having been prepared during the previous autumn, were in the best possible condition for planting. These pits are made from 9 in. to 15 in. square, depending on the size of the transplants, and a full spade in depth. If the bottom is hard and impervious to water, the subsoil is further loosened up with a sinking-bar, thus giving the trees every possible chance of success. The soil from the pits is laid on one side of the hole, and the weathering influences of the atmosphere quickly reduces it to the finest state of pulverisation, so essential for the future well-being of the tree.

On the alluvial flats adjoining the Pomahaka River, and in deep, sheltered, moist gullies, *Abies douglassi* (Oregon pine) was planted as the principal ultimate crop at 16 ft. apart, equal to 170 trees per acre, with English ash as the secondary crop at 16 ft. by 8 ft. apart, equal to 510 trees per acre, and filled up to 4 ft. apart over all with larch as "nurses."

On steep hillsides and undulating lands where the soil is somewhat heavy and moist, with a stiff clay subsoil—frequently mixed with stones—English oak has been used as the principal ultimate crop, with English ash or sycamore as secondary crops, the former in the more moist localities, and the latter towards the tops of ridges. The "nurse" trees for planting between these, not being sufficiently grown when the above were planted, will be put out this season.

On the exposed edges of the plantation spruce fir have been planted as a shelter-belt. This tree, being of a close, compact habit of growth, is particularly useful in affording protection to the more valuable trees.

Roughly formed 12 ft. roads for giving access to various parts of the reserve have been made in the centre of 66 ft. wide fire-breaks—a very necessary provision to prevent the spread of fire from one compartment to another. These fire-breaks have been made (where possible) on the crowns of dividing-ridges and leading spurs, and, with a view of utilising the land, two rows of walnuts have been planted 20 ft. from the centre of roads at 18 ft. apart. On either side of these two rows of walnuts, cob, hazel, or filbert nuts will be planted at 9 ft. apart. All the above trees being deciduous, there is little danger of fire spreading from one to another, as in the case of most coniferous trees.

The "nurse" trees for further planting on this reserve will be chiefly *Pinus austriaca* and *Pinus laricio*, preference being given to these varieties for the following reasons: (1) Perfect hardihood, and the great amount of shelter they afford to less hardy species; (2) their success when planted in almost any position or variety of soil, from high-water mark to altitudes of several thousand feet; (3) their known value as durable timbers, especially where subject to being wet and dry alternately, such as sleepers, posts, &c.; (4) the low cost of seed, and the ease with which they can be raised and transplanted with a very small percentage of loss; (5) when thinning out is necessary the "stump" never sprouts again (as with deciduous trees), whereby a considerable annual expense is saved in having no stool-shoots to suppress.

The whole of the trees planted out during the year have done remarkably well, owing to the favourable moist spring and summer experienced.