

Tree stocks in all three nurseries in the conservancy total 11,708,000. Of these, 6,239,900 will be held for Service use, 261,200 reserved for Public Works Department, and the remainder carried over till next season.

Thinning was carried out at Waitapu State Forest, and a total volume of 81,800 cubic feet of wood was obtained, comprising 7,448 posts, 147 strainers, 910 telephone-poles, 8,900 props, 4,721 logs, and 133 cords of firewood.

In the same forest 142,800 cubic feet of timber was cut and removed under contract from an area of 106 acres, detailed products comprising 110,360 mine props, 400 fencing rails, and 30 cords of firewood, to a value of £1,435.

In September, 1938, a small portable sawmill was installed in Waitapu State Forest and operated for fifty-seven days, cutting mostly 33-year-old *P. radiata* logs. The total output was 362,360 ft. board measure, and this will largely be used for building purposes within the conservancy, the main project being buildings at Waipa in connection with the milling and box making operations which will shortly be commenced there.

WELLINGTON.

Karioi.—This station experienced favourable weather conditions, although the late summer was unusually dry and a strong August gale did damage to double leaders in the four compartments of *P. radiata*. With the exception of a few species on high altitudes, the trees generally have made fair growth.

Pruning operations were carried out over an area of 355 acres of almost pure *P. murrayana* and, owing to the heavy branching habits of this species, pruning saws were found more suitable for the work than the docking saws, slashers, &c., previously used. Tree stocks of all species in the nursery are estimated to number 1,900,000.

Erua.—A further area of 644 acres of cut-over land was planted as follows: *Thuja plicata* (318 acres), *C. lawsoniana* (304 acres), &c. It is estimated that there are 261,000 trees in the nursery available for this year's planting.

Tongariro.—This new project was commenced two years ago on cut-over bush land in the vicinity of Owango on the Main Trunk line, and during the period under review 619 acres were planted with 392,800 trees similar in species to the *Erua* planting.

A small nursery has been established in Owango Township, where there are at present 640,000 lined-out trees.

NELSON.

Golden Downs.—Well-distributed rainfall during the growing season benefited tree-growth of all classes, notwithstanding a dry spell which continued from the middle of January to the end of March. A small planting programme of 368 acres was carried out, the predominating species being *P. laricio*, *P. muricata*, *P. ponderosa*, and *P. murrayana*. Other activities included blanking (374 acres), replanting (553 acres), and interplanting (202 acres).

Pruning and partial thinning treatment was given to an area of 833 acres, the pruning being to a height of from 10 ft. to 14 ft. The stands comprised *P. radiata* and *P. muricata* of the earlier plantings. Tree cleaning covered an area of 1,250 acres. There are 2½ millions of trees in the nurseries.

Dumgree.—Routine maintenance-work was carried on throughout the year; 130 cords of firewood cut from poor trees were disposed of to the New Zealand Railways Department. The severe late summer drought, which has always been so harmful to this area, again exacted a heavy mortality toll.

WESTLAND.

The oldest areas of replanted cut-over forest are now fifteen years old and constitute the largest forest of cypress species in the Dominion. In many places western red cedar, Lawson's cypress, and Monterey cypress have now well outstripped the lower story of scrub and second growth in this old cut-over forest, and a dense forest stand has been established of an entirely new type. The crowns of the introduced planted species have, however, not yet closed to a canopy which will kill out the understory, so that the whole of the ground is covered with an impenetrable thicket. Annual height growth of the cypresses is, however, extremely satisfactory in all places where their leaders have pierced the indigenous scrub thicket, and the present stage of the forest is a most interesting and promising one. Opossums, cicadas, and *Armillaria mellea* are all taking their toll, but indications are that, given a consistent campaign against the opossum, the new forest will hold its own against the other enemies.

Of quite a different type is the dredge-tailings area at Rimu, where the only planting was done for the year in the district. This was a mere 5½ acres of Corsican pine, which so far shows an 80 per cent. survival. This type of planting on barren boulder debris from dredging operations has now been in progress for fifteen years also, but, although it attracts much more public interest and commendation than the previous type, its final outcome is still very much in doubt. A distant view of patches of plant cover on an area known to have been bare boulders appears to arouse enthusiasm in the casual observer by reason of the contrast with the still uncovered boulder heaps. Close examination of the trees, however, does not reveal much grounds for hopes of an ultimate timber yield of any moment; and the increasingly popular view that the desolation of boulders left behind a large dredge can easily be turned into a profitable pine forest should not be passed over without this note of warning.