and finds a place in most private gardens and temple-enclosures. *Pinus densiflora* is also a native of Japan, where it is as highly esteemed as *P. Thunbergii*. *P. Monticola* is a large-growing tree; native of the mountain-ranges of North-west America. The wood is suitable for the same purposes as the Weymouth pine. *Tsuga Mertensiana* is a native of Western North America, where it has a wide range from California to Alaska; it is a valuable timber tree. The genus embraces the hemlock firs, which are closely allied in character to the larches and spruces. This species, like spruce, is very slow-growing in the Rotorua district, and the seedlings raised this year are no exception to this rule.

Two-year-old Seedlings.

Corsican Pine (*Pinus Laricio*).—This was the principal crop in this class, and is the finest lot of trees ever raised here. All are healthy, have made strong growth, and probably 90 per cent. of them will be fit for permanent planting next winter.

European Larch (*Larix europaea*).—This crop is not as good as usual, which is due to the very dry weather experienced in the first two months of 1911. Grass-grub, too, has been prevalent, and there are several small patches in each bed where the presence of this pest is very noticeable. The root-fungus (*Rosselinia radiciperda*) has not been responsible for so much damage as in former years. This disease is being investigated, and our observations up to the present time would seem to indicate that the root-fungus has an injurious effect only where the roots of the larch have been damaged either by the implements or by the grass-grub. This view is partly confirmed by the fact that perfectly healthy specimens of larch have been lifted, showing large quantities of *Mycelia* adhering to the roots. It is proposed to desist from "wrenching" the larch for a year or two, in order to ascertain if this view of the matter is a correct one.

Western Larch (*Larix occidentalis*).—In last year's report it was stated that this species was of a slower rate of growth than the European larch, and the growth made by the plants during the past year confirms the statement. It is quite as susceptible to the root-troubles as the European larch.

Other trees mentioned in the schedule attached have mostly made good growth, and will be transferred to the plantations during the coming winter.

Lined-out Trees.—Very satisfactory growth has been made amongst all species of trees; the pines being unusually good, and the larch just about the average. The bulk of these trees will be available for sending to the plantations next winter.

Trees sent to the plantations, &c., during the year numbered 4,303,021, and their value £7,608 9s. 10d. The totals to date are 28,399,075 trees, valued at £60,518 18s. 6d.

Seed-sowing was conducted under very good weather-conditions during the months of October and November. An experimental sowing of one bed each of larch and Corsican pine was made early in September, but the results were unsatisfactory, probably owing to there being insufficient warmth in the soil. This trial sowing was made in order to ascertain what difference upon the growth of the seedlings would result; but, although the growth was considerably greater, the rate of germination was so low as to make a repetition of such early sowing undesirable.

The last three months of 1910 were somewhat damper than usual, hence weeding has been an unusually heavy item of expenditure. Sorrel is the most common of the weeds to be contended with, and, owing to the underground stems, it is somewhat difficult to keep in check in the seed-beds.

Lining-out.—This work was commenced on the 13th July, and completed on the 31st August, the number of trees dealt with being 2,500,000. The average cost for this work was 1s. 9d. per thousand. Sizing of seedlings cost 2s. per thousand, and lifting lined-out trees in readiness for sending to the plantations cost 2s. 3d. per thousand.

Horse-feed.—There were 25 tons of oaten sheaf grown and harvested in prime condition; while the previous year's stack, amounting to 17 tons, was chaffed. Cropping of this sort may be regarded as profitable; but during the period that the crop occupies the land the weeds make great headway, so that it is not desirable to use land on which it is afterwards intended to grow crops of trees. For growing horse-feed only an additional area of 14 acres was ring-fenced, and this was sown down in oats during March, 1911. One of the horse-paddocks which has been down for ten years was ploughed, and it is intended to put this in oats next spring.

A five-roomed cottage was erected during the year for the use of the Nursery Foreman, whose duties compel him to live close to the work.

Two new wagons were purchased to replace the old ones. The type of wagons bought are common in this and most country districts. They are strongly built, with no springs, and a body which can be removed; while the under-carriage has a sliding reach, making the vehicle adaptable for carrying long lengths of timber. These wagons will be mostly occupied in carting trees to the Waiotapu Plantation. A lighter spring wagon was also purchased for supplying the Whakarewarewa Plantation with trees.

Proposals for 1911–1912.—It is estimated that between five and six million trees will be available for sending to the plantations this coming winter. Of these, the majority are pines, and, as it is advisable to plant pines before the actual dormant season arrives, an early start will be made in sending them out. This will necessitate an increased expenditure in labour for about the first three months of next year, or until all the pines have been lifted and despatched to the plantation. The larch, which transplant as well in the spring as in the autumn, will not be handled until all the pines have been dealt with.

Manuring.—The nursery soil, with frequent tillage and cropping, has lost much of its natural fertility, owing to the decomposition of the humus. Artificial manures, while improving the productive capacity, have very little effect upon the physical properties of the soil, especially is this so where the crop is taken right out of the ground, as is the case with young trees. There is not even stubble left to plough in to form humus, as for instance after an oaten crop. To improve the soil-conditions, it is proposed that all vacant land next spring be sown down with a leguminous or cruciferous crop for ploughing in, and each piece of land as it becomes vacant will be similarly treated.