A considerable amount of labour was further employed in effecting improvements to the camp, extending the garden, fencing, growing vegetables, &c. The prison officers have supervised the work with care and discretion, and the men have taken a commendable interest in their work, and on the whole their conduct has been good.

Details of expenditure and values are appended.

D. Buchanan, Assistant Forester.
N. Craig, Nurseryman in Charge.

Rotorua Nursery.

(Area, 50 acres; altitude, 1,000ft.)

The weather experienced during the past year has been most favourable for tree-growing, and it is pleasing to report that the various crops grown at this nursery are extremely good, and in many instances almost phenomenal growth was made. The rainfall during the year amounted to 49·67 in., falling on 169 days, the heaviest monthly fall being recorded for October, when the total fall registered was 7·80 in. on twenty-one days. During the previous year—1904–5—the rainfall amounted to 52·04 in., falling on 153 days.

The maximum shade temperature was recorded on the 4th of December, with 94 deg. Fahr., against 95 deg. in January, 1905; and the minimum temperature was 24 deg., on the 8th August, against 22 deg. in the corresponding month of the previous year.

These particulars of the rainfall and temperature express very inadequately the general weather conditions, and it may be as well to further mention that the dry windy weather which is usually prevalent here during the spring was not experienced during the corresponding period of this year. This fact goes a long way in accounting for the good growth made by the trees, as the spring months are perhaps the busiest and most important ones of the year. The lining-out and transplanting of trees is then in full swing, and their subsequent growth depends very much upon the state of the atmosphere at that period; a moist, warm atmosphere, of course, being most conducive to good growth and a low death-rate.

During last spring trees to the number of 1,483,500 were lined out, at an average cost of 1s. 9d. per thousand. This cost is low compared with the previous year, when lining out cost 2s. 6d. per thousand; but can be accounted for from the fact that the majority of the trees dealt with were larch, and were easily handled.

Seed-sowing commenced on the 12th October, and owing to favourable weather was completed early in November, about a month earlier than last year, and at a much less cost.

The crop of one-year-old seedlings is, perhaps, the finest that has been raised here during the last five years. All the principal species germinated well, the larch and Corsican pine being particularly fine, both as regards percentage of germination as well as growth. About one-half of the larch-crop are from 4in. to 6in. in height, and it will be necessary to transfer them to the nursery-rows next spring. It is worthy of notice that from 560lb. of larch-seed sown the estimated crop is 2,500,000 trees, while the same quantity of seed sown the previous year resulted in a crop of 1,500,000, or 1,000,000, less than this year. The good crop this year is due largely to the excellent quality of the seed obtained, and in a measure to the favourable weather. Whilst mentioning this fact, it is especially urged that a sufficient sum should be placed on the estimates to provide for such a contingency. Where the result of a crop is merely conjectural, it is evident that the cost of handling the crop when it reaches the critical stage is also a matter of conjecture; and, in respect to this year's crop of larch, it is estimated that it will cost during the next year £200 more to handle than did that of the previous year. The crop of *Sequoia sempervirens* (redwood) is again poor, but it is much better than has been obtained during the last three years. *Juglan's nigra* also germinated sparsely, but the plants have made very good growth.

The two-year-old trees in seed-beds have done well

Lined-out trees are all strong and sturdy, and mostly fit for transferring to the plantations during the coming winter.

It is now evident that a further area of about 20 acres of land will need to be secured for nursery purposes. The present enclosure has, with the exception of about an acre, all been graded and broken up, and yet it is not large enough to accommodate the trees which are being grown, unless a system of manuring is carried on and the same land cropped year after year. Such a procedure would be most inadvisable in this light pumiceous soil, and would only get over the difficulty for a few years. Since the increase in the crops at this nursery was authorised, three years ago, until now no fair test has been afforded as to the area of land required, owing to the fact that may of the two-year-old trees were sent to the plantations direct—not lined out—and also that of the prescribed number about one-third were Eucalypti, which, owing to their rapid growth, were planted permanently twelve months after the time of sowing the crop. The number of trees in the nursery has steadily increased from 5,535,355 in 1904 to 6,563,625 in 1905 and 7,781,400 in 1906, and from now on it will remain much the same as at present. The seed-bed ground, with the exception of a few small areas, is at present all occupied, and it will be necessary to select a further area for this purpose before next spring, thus reducing the ground that has been used up till now for lining-out purposes.

It will also be necessary to provide another grass-paddock for the horses, as the present enclosures are quite inadequate since a second team was purchased, and it has been necessary to feed with hay during the past summer. In this hot climate horses soon get out of sorts if fed continually on hard feed, and the cost of a grass-paddock would soon be amply repaid.