

NASEBY SURVEY PADDOCK PLANTATION.

(Area, 175 acres; altitude, 1,700 ft.)

All trees at the above plantation have made very satisfactory growth. During the year weeds have been kept down around the smaller trees, and a strip of land ploughed around the fence-line in case of fire from outside.

Trees to the number of 19,650 were used to fill up blanks with *Pinus ponderosa*, in place of *Pseudo-tsuga taxifolia*, which have proved useless here. The area planted, therefore, remains at 132½ acres, and the total number of trees in the plantation at 360,185. The cost of planting trees was 16s. 8d. per 1,000.

Statements of expenditure and values are appended.

A. W. ROBERTS,
Nurseryman in Charge.

GIMMERBURN RESERVE.

(Area, 420 acres; altitude, 1,200 ft.)

The trees at the above plantation have made satisfactory growth, considering that there have been two dry seasons in succession. Trees planted last season have made better growth than those planted during the previous year, many having put on fully 6 in. of vertical growth for the season. The larch planted this season did not do well, and there will probably be about one-third succumb. The ground was very dry and rough and the trees were off the seed-beds, which may account for this failure. The rainfall would probably not amount to more than half of what was recorded at Eweburn, hence the difficulty of getting trees to succeed the first year. As the ground is very hard and lumpy, it has been decided to crop the next 100 acres with oats or turnips prior to planting with trees.

Pinus Austriaca, growing not a mile away from this plantation reserve, are known to have attained a height of from 8 ft. to 10 ft. in seven years.

Trees planted during the year number 129,100, and the new area covered was 16 acres. The plantation now contains 223,775 trees, which occupy an area of 76½ acres.

The average cost of planting and digging half-holes was 17s. 7½d. per 1,000, and the cost of pitting 11s. 6d. per 1,000.

The average number employed during the year was one man (wages).

An area of 68 acres was sown down in oats, and the estimated yield is 2,000 bushels, which will be distributed to the various nurseries.

Two new "paroid" huts have been erected on skids for the use of the workmen, making very warm dwellings, which are much appreciated. These are each 14 ft. by 12 ft., and are lined throughout with tongued and grooved timber.

Details of expenditure, values, &c., as per statements appended.

A. W. ROBERTS,
Nurseryman in Charge.

TAPANUI NURSERY.

(Area, 120 acres; altitude, 500 ft.)

During the past year rain fell on 119 days, with a total of 43.95 in., the maximum monthly fall being 6.45 in., recorded in October. The minimum shade temperature (21 deg.) was registered on the 2nd July, and the highest (90 deg.) on the 15th February.

An excellent mild winter was experienced, and for the months of May, June, July, and August a total rainfall of only 7.53 in. was recorded.

During the four following months, when favourable weather is essential to successful nursery operations, no less than 23.10 in. of rain fell, causing considerable delay in work, and to a great extent interfering with subsequent progress in tree-growth.

Hardwood-seed sowing was carried on in the early part of July, the usual amounts of ash, oak, and sycamore being sown with fair results.

Preparations were made for conifer-seed sowing on the 4th October, and this work, through repeated breaks in the weather, was not completed until the 23rd October. Heavy continuous rain immediately followed, and a hard crust soon formed on the surface of the seed-beds. Notwithstanding this, an average germination resulted in all species, with the exception of *Picea sitchensis* and *Pseudo-tsuga taxifolia*.

The continued absence of sunshine and warmth was responsible for the damping-off of fully two-thirds of the entire larch-crop, and the estimate of one-year-old seedlings of all species was reduced to 742,625.

The two-year-old trees in seed-beds, although not making the average growth, are mostly healthy plants, and a large percentage of the total—1,242,500—is sufficiently strong for permanent planting this year.

Lining out.—Transplanting of one- and two-year-old trees was commenced on the 17th August, and extended over five weeks. During that period 523,700 seedlings were transferred to nursery-lines at a cost of 2s. 9½ per 1,000. The percentage of deaths in this operation was very slight, although their growth is only consistent with the backward season experienced.

Two years ago about 70,000 *Picea excelsa* were lined out, but their stunted appearance at the termination of the season made it necessary to allow for an extra year's growth. These have developed into well-grown, fibrous-rooted trees, averaging about 9 in. in height.

The total number of trees of all ages in the nursery at present is estimated at 2,565,675, valued at £4,008. 13s. 6d.