

Pinus Laricio.—A very fine crop was produced from the 122 lb. of seed sown, the number of trees raised being 850,000. The young plants are very well grown and sturdy.

Pinus ponderosa.—120,000 seedlings were raised from 30 lb. of seed, the young trees making very good growth.

Pinus Benthamiana.—The sowing of 10 lb. of seed of this species resulted in a sturdy crop of 10,000 plants.

Pinus insignis.—A very good crop resulted, the amount of seed sown being 4 lb. Of the 20,000 seedlings raised the majority are strong and healthy.

Pinus muricata.—Not so sturdy a crop as the *insignis*, but a greater number of plants to the amount of seed sown (4 lb.), the total of trees produced being 30,000.

Pseudo-tsuga taxifolia.—The seedlings of this species made but poor growth compared with last year's crop; about 10,000 plants were raised from 2 lb. of seed.

Alnus glutinosa.—The seed of this tree was collected in the plantation adjoining the nursery, from eight-year-old trees. The results were highly satisfactory, the total number of seedlings raised from 6 lb. of seed being 200,000.

Two-year-old Seedlings.

Pinus Laricio.—This was the only variety allowed to remain in the seed-beds for two years, and the young plants have made fine growth. This plan does not recommend itself at this station, however, as after lining out the growth is not so vigorous as that obtained among trees lined out at one year old, and the development of root-fibre is much inferior and the whole plant less sturdy, the previous close confinement in the seed-beds tending to spindly growth.

Two-year-old Lined-out Trees.

Larix europaea.—This is a very fine crop, the young plants being exceptionally healthy-looking and sturdy. The percentage of loss after lining out was very small; but the grass-grub made its appearance in patches later in the season, and accounted for a slight percentage of deaths. The whole of this crop will be transferred to plantations during the coming season.

Pinus Laricio.—The percentage of loss in this variety on a portion of the lined-out area was very severe. This area was rather heavily limed some months previous to the commencement of lining-out operations, and this alone would account for the loss sustained, as conifers naturally dislike lime. Had it been possible to fallow the area for a further twelve months the loss would not have occurred; but no other ground was available at the time. A distinct contrast is noticeable on the unlimed area under this variety of tree, the percentage of deaths not being appreciable, and the growth throughout being much more vigorous. The liming should, however, prove most beneficial after the second year.

Pinus insignis.—This species has made good growth, and it is anticipated that the whole crop will be available for transfer to plantations this season, to be utilized for shelter purposes.

Pinus muricata.—This crop has not done well, although planted under exactly the same conditions as the above-mentioned variety. The majority are, however, sufficiently developed for permanent transfer, and will be used for the same purpose as the *insignis*.

Pinus ponderosa.—The growth of this variety is above the average, and the crop is a very fine one, the percentage of deaths after lining out being very small.

Pinus Benthamiana.—This species has not done so well as the foregoing, the poor development of root-fibre in the seedling stage being against successful transplanting. The percentage of deaths is above the average.

Pinus austriaca.—The loss through transplanting among this variety is below 1 per cent., and the growth for the season is good. Only a little over 2,000 of these trees were raised, however, as it was not deemed advisable to cultivate the species to any great extent, owing to its susceptibility to blight.

Pseudo-tsuga taxifolia.—Few deaths have occurred among this variety, the growth throughout being well above the average; fully three-quarters of this crop will be fit for permanent planting this season. The remainder will be lined out for another year.

Picea sitchensis.—These trees, though slower-growing than the aforementioned species, have done remarkably well. The young plants, however, are not sufficiently well forward for transference this winter, and will therefore remain in their present position for another year. The raising of the variety at this station is not recommended, owing to the prevalence of "spruce red-spider" in the adjoining Spa plantations, and the peculiar susceptibility of this species of *Abies* to attack from the pest.

From a perusal of the above summary it will be gathered that lining-out operations were productive of very fair results; the percentage of loss over all was not great. The work was commenced on the 11th August and completed on the 6th October, the whole operation being conducted under favourable conditions. The number of trees dealt with was 1,836,200, at an average cost per thousand of 1s. 7d.

Three-year-old Trees.

Pinus Laricio.—Of this variety about 400,000 were transplanted from the two-year-old seed-beds during the spring; but the results could not be considered as an unqualified success, the percentage of loss being above the average, and the growth being considerably inferior to that of trees lined out at one year old during the previous spring. The breaks being side by side, the contrast between the two is most noticeable; the trees transferred from the seed-beds at one year old, although exactly the same age as those transferred at two years, have put on twice the growth of the latter, and are very sturdy and well-rooted plants, whereas those transferred at two years have made but little headway, and have not the healthy appearance of the former. Another trial, however, will be made this season in order to give the experiment a fair test at this station.