the soil for some time the dressing is applied with most advantage some months before the transplantation of seedlings begins. Kainit has also proved of immense value in imparting a quality to the soil obnoxious to the beetles and larvæ. Periodically those portions of our nursery-areas where the predominance of clay is apparent receive a dressing of agricultural lime; but it may be interesting to state that the results are more satisfactory if ground so treated is permitted to remain "rested" until the ensuing season, as pines rarely fail to show their aversion to the presence of newly spread lime in any form.

Arboretum.

The small areas available have perhaps been the cause of postponing from time to time the laying-off on approved principles of an aboretum at each nursery to demonstrate the growth of the various timbers operated with, and disclose the possible success of those which are now considered undesirable from a sylvicultural point of view. Arrangements are now well in hand, however, to carry this laudable idea into effect, and, as we already possess a somewhat varied collection of trees and shrubs at each station, their rearrangement, labelling, and supplementing will be a simple matter.

Under-planting at Dusky Hill Plantation.

The experiment of under-planting with *Thuja plicata* is being conducted in a very moderate way, but nevertheless of sufficient magnitude to disclose the possibilities of using the Pacific red-cedar for creating ground-cover. In our more advanced larch compartments the canopy is less complete than it was two or three years ago, and consequently the action of the penetrating sun on the floor of the young forest has influenced, here and there, the regrowth of vegetation. The time for thinning and under-planting is therefore quickly approaching, and the experimental labour in this direction during the ensuing two years will verify or disprove the methods recommended for supposed similar conditions by Continental writers. In perfect shade the young *Thuja* have made 6 in. of healthy growth, and give every indication of being useful for the purpose in view. It is interesting to note that both spruce fir and Oregon pine have already shown their growing inconsistency when allocated positions under the larch shade. Certain specimens are observed making excellent progress, whilst others again refuse to respond to the conditions; but, by keeping a watchful eye upon the future behaviour of these shade-enduring trees, it should be an easy matter to ascertain the cause of their irregularity under what was hitherto considered to be ideal surroundings. Embodied in this report is a photograph showing the nature of a flourishing specimen of *Pseudo-tsuga taxifolia* planted simultaneously with *Larix europaea* in a specially mixed stand. Notwithstanding the proximity (4 ft.) of surrounding larch and the general evenness of height-growth, strong lateral branches have issued from the evergreen almost throughout the length of the bole, demonstrating clearly the presence of too much light and insufficient density of planting for the creation of ideal Oregon pine forests.

Timber and Seed Specimens.

The collecting of the world's timbers is proceeding slowly. Included in the 370 specimens of woods secured (which, however, are by no means representative of any country) are samples from India, Malay, East Africa, Australia, &c., and although in the past the limited time at the disposal of officers forbade entering minutely into the studies of wood-structure, this phase is now receiving attention, and for such comparative purposes even the present collection of timbers is exceedingly useful. It has been possible to also greatly supplement the collection of tree-seeds for reference purposes, whilst the preserving of entomological specimens associated with tree-culture has not been overlooked.

Publication of Forestry Journal.

Each officer is steadily accumulating much valuable knowledge, which, by its diffusion amongst fellow-officers and the public generally, would prove both highly interesting and instructive. The inclusion of many experiences in the annual report of afforestation operations is perhaps undesirable, inasmuch as the salient features are apt to be overshadowed by lengthy articles, although excellent in themselves, having little bearing on the actual season's work accomplished. To my mind, the publication annually (or, if circumstances warranted, at less periods) of a small illustrated journal devoted purely to forestry matters from a scientific and practical aspect would undoubtedly stimulate the desire for further research generally, and it is more than likely that solicitations for articles on kindred subjects would be responded to readily by enthusiasts willing to place on record the results of their observations and experiments.

Experimenting with certain Trees.

Probably the trial sowing of *Pinus taeda* was the most interesting experiment conducted with newly introduced varieties to the southern stations, and the 8,000 healthy seedlings issuing from 2 lb. of seed will be ample to test the adaptability of this species of pine for high altitudes and the more rigorous conditions obtaining in Central Otago. A previous test of *Picea pinsapo* and *P. Nordmanniana* not eventuating satisfactorily, a further attempt to secure better results with these species ended in only a slightly increased germinating percentage. Some 3,000 *Pinus Banksiana, P. patula, P. Montezumae, P. Murrayana, P. picea,* and *P. sylvestris* have reached the two-year-old stage without disclosing any ill effects from local climatic conditions. In next report, however, more complete data on the youthful characteristics of each species will be available, and accordingly influence our future operations with these members of the pine genera.