

LEASING FOREST LANDS.

Under the State Forest Act the powers of the Commissioner to lease any portion of forest land except to sawmillers is limited to twenty acres. It is found by experience that it is desirable this limit should be abolished. In all forests there are numerous areas either bare or covered with worthless scrub, which cannot be improved by the department for some years on account of the want of funds. Power should, I think, be given to lease areas of this kind for a short time in cases where adjacent settlers might find it beneficial to take them up. Two applications to occupy land of this kind have been made; in one of these the applicant expresses his readiness to plant a portion of the area under the instructions of the department, but as the area applied for exceeds the stated limit there is no power to accept the offer.

KAURI-GUM LICENSES.

In the interests of village settlers the Hon. the Commissioner of State Forests has given instructions to issue free licenses to dig kauri-gum during the months of May, June, July, and August. Fern land, cleared patches, and scrub within the boundaries of the forests are to be thrown open without restrictions, the only limitation being that digging amongst growing kauri, whether old or young, is strictly prohibited. This is absolutely necessary as the kauri is extremely sensitive to any disturbance of the surface or to destruction of the light undergrowth; slow premature decay being the result of interference with either. This point is of importance when the necessity of preserving the kauri in order to afford employment to a large number of working-men is kept in view.

A NEW SPECIES OF TOTARA.

During the progress of inquiries directed to ascertain the cause of the remarkable variation in the durability of totara timber from different localities in the colony it was discovered that two distinct species of *Podocarpus* have been confused under the name of totara. The Hawke's Bay and Wairarapa Districts especially have long been famous for the durability of their totara when used for bridges and other large works. Totara from Otago and other localities is more lightly valued. The Hawke's Bay timber belongs to the true *Podocarpus Totara*, which occurs, sometimes mixed with the other species, from Auckland to Catlin's River. The other, which I have named *P. Hallii*, is the only species in Southland and Stewart Island, but is also found as far north as the Bay of Islands, and is frequent in mountain districts. It is distinguished from the true totara by its thin papery bark, larger leaves, and pointed fruit, its timber is lighter and apparently more suitable for piles than *P. Totara*, but less valuable for heavy constructive works. It is named after Mr. J. W. Hall, of the Thames, who has cultivated it for some years, and strongly advocates its specific validity. Drawings and descriptions will be included in the first division of the "Forest Flora of New Zealand," now nearly ready for issue.

THE AGRICULTURAL SECTION.

It has already been stated that the total expenditure under this section during the year amounts to £1,051. This includes salary and travelling expenses of the officer in charge. Payments to Mr. Alderton for reports on American fruit-culture, the purchase of Mr. Maskell's work on scale insects, salary of Mr. Schoch, and purchase of mulberry-trees, &c., with smaller items of a similar character. As none of these are connected with forestry, their being charged to the forest account places the department at a decided disadvantage, especially as debentures have to be issued to meet them.

FRUIT SECTION.

Under instructions from the Hon. the Commissioner of State Forests, Mr. Maskell's work on the Scale Insects of New Zealand has been purchased and printed with coloured plates at the cost of the department. It will be issued at a low price, and it is hoped will prove of assistance to fruit-growers.

A large amount of information with regard to the habits of certain injurious insects and fungi has been collected by the Chief Conservator, and will be arranged for publication in a popular form at the earliest possible date.

I have to express my satisfaction with the conduct of the officers of the department during the past year. I believe that all have endeavoured to discharge their duties in an efficient manner, in some cases under trying circumstances.

I have also to acknowledge the assistance given by officers of the Survey Department, especially by Mr. McKerrow, Surveyor-General, Mr. S. P. Smith, Assistant Surveyor-General, Mr. H. J. H. Elliott, Under-Secretary for Crown Lands, and Mr. J. Spence, Chief Surveyor, Southland. The last-named gentleman was indefatigable in his efforts to smooth the difficulties incidental to the enforcement of new regulations.

AN ACCOUNT OF THE MANUFACTURE OF CRUDE POTASH IN AMERICA.

The following interesting account of the American method of manufacturing crude potash has been written by Mr. H. D. Twohy, of the Forests Department, and is printed for the information of settlers:—

"SIR,—In compliance with your instructions I visited several makers of potash, and obtained the following information as to the process commonly employed:—

"Having selected a central position with a large permanent supply of water, a rough shed is erected, a flat-topped horizontal brick or stone-arched flue, terminating in a stack, is put up and five potash-kettles weighing 12cwt. each are set in line along the flue 2in. apart from flange to flange. Commencing at the furnace-door the kettles are numbered 1, 2, 3, 4, 5, each kettle beginning with No. 2, being set 2in. lower than the one proceeding it for the purpose of distributing and equalising