

- (c.) Planting operations to be carried on indefinitely for the next generation: By direct action—Hammer Springs, Blue Mountains; by co-operative agreement—Sand-dune planting, &c.
- (d.) Acquisition of freehold cut-over areas where a potential and immature forest growth is existent: Auckland District; inland empire, North Island; and generally throughout New Zealand.

A special note at this time should be made of the relations of the Government to the Selwyn Plantation reserves. These reserves, which are located in the Canterbury District, extend over 15,000 acres, and contain several thousand acres of forest plantations. Under definite regulations the administration of these reserves is vested in a Board, the Chairman of which is the Commissioner of the Canterbury Land District. There is also a regulation to the effect that the Superintendent Nurseryman of the South Island will supervise operations (this responsibility has not been exercised for the last two or three years). Your investigator strongly recommends that under the new organization the District Executive of the Forest Service be appointed definitely as Chairman of the Board governing this work. There is everything to be said in favour of having a trained forester as the responsible representative of the Government in a matter of this kind.

NOTE.—The financial aspects of forest-extension are discussed under the heading of "Forest Finance."

EXTENSION OF FORESTS BY EFFORT OTHER THAN BY THE STATE.

To accomplish the main objective of forestry requires joint action on the part of the State and of the individual. Therefore it behoves the regulative body to make it possible for the citizen to engage in the business of forestry by guaranteeing that the conditions under which he works are at least equal to the advantages enjoyed by the Forest Service in the production of wood crops and the manufacture of forest products. There must be removed—(1) The uncertainty of legislation; (2) the instability of State and county taxation; (3) danger of loss by fire; (4) insufficient means of access and transportation; (5) the fear that the investment in the long-time business of forestry may prove disastrous or unprofitable. It is within the power of the New Zealand Government to stabilize and satisfy all these conditions.

Your investigator submits the following methods of solution:—

Solution of Item (1).—The uncertainty of legislation can be neutralized by the declaration of a definite forest policy—the creation of an administrative body (Forest Service); the enactment of a fundamental but comprehensive forest law, and the creation of legislative machinery to enable the development of effective co-operative procedure, and the expansion of such powers as the growing of trees at State nurseries, for the sale and distribution of same at cost (or less than cost if expedient); the authority to give technical and expert advice and supervision to private owners; the formation of forest working-plans; the establishment of demonstration woodlots; and the power to enter into proceeds-sharing schemes with private owners or local bodies.

Solution of Item (2) (the instability of State and county taxation).—It is recommended by your adviser that a thorough and exhaustive investigation be made as soon as possible by the Forest Service into the incidence and burden of taxation on forests and forest lands, and that a uniform system of State-forest taxation be adopted by legislation, a system which will ensure the best use of the land and will be uniformly applied throughout the Dominion. The taxation measure should adopt the principle of a *deferred-yield tax* on the growing forest stand, and, if expedient, a *surtax on forest lands not protected or managed* in accord with sound forestry principles as expressed in the regulations and standards set by the State Forest Service.

An equitable forest-taxation law as has been suggested should overcome those serious objections so often expressed by private owners—*i.e.*, that present taxation impositions are so heavy, unjust, and so out of proportion to the incidence of public burdens on other forms of property, that private forestry is impossible. A measure of this kind should go a long way to making possible the successive growing of trees and the practice of conservative exploitation by earnest and public-spirited citizens and companies.

Solution of Item (3) (danger of loss by fire).—The fire hazard is without a doubt a great drawback to the practice of forestry by the private operator (as it may be to the State) who wishes to grow timber or introduce conservative cutting on his holdings. The responsibility of overcoming this serious menace is entirely in the hands of the State. The forest-protection problem might therefore be made the subject of a mandatory fire-protection law. In essence this law would cover the following aspects: Any region may be declared a fire-protection district, in which district by a system of co-operation the Forest Service would take charge of all forest-fire prevention and control. The Forest Service may for each district promulgate rules and fix standards to minimize the hazards and induce an efficient participation by all forest-owners and others in the protection of the districts, forests, and woodlands. The Forest Service may provide appropriate penalties for the enforcement of the fire-prevention standards for each district.

At such times as the operation of the fire-protection law results in efficient prevention and control of the fire hazards, *fire insurance* comes within the range of feasibility. Every encouragement should then be given to the adoption of plans of insurance such as has been inaugurated by the State Fire Insurance Office. A national extension of this insurance should be put into effect as soon as the regional protection plans have been worked out. The writer is convinced a premium may be worked out that should not be more than one-half of 1 per cent., and possibly much less.

Solution of Item (4) (insufficient means of access and transportation).—The successful operation of private forestry operators is dependent on ready and accessible markets for the preliminary,