

5. No timber-sales to be made generally for a longer period than five years, but in exceptional circumstances, where the development expense would be heavy, this time may be varied at the discretion of the Director of Forest Service.

6. All timber to be marked and properly measured by a licensed scaler before removal from the timber area.

7. All timber to be measured by the solid-cubic-foot rule, and all timber to be sold on this basis.

8. All existing sawmill licenses and Mining Wardens' licenses to be made perpetual by a renewal license from year to year as long as any merchantable timber remains and the areas are not required for settlement.

9. No timber-sale contracts to be transferable or assignable. They should be regarded as a contract only between the Government, as owner of the timber, and the user.

10. Every effort should be made to secure for the public the full market value of the standing timber, and speculation by purchasers of public timber must be discouraged.

11. The Forest Service, within reason, should have full charge of the silvicultural policy over all timber-sales, and to the extent of protecting the public interest should be granted sufficient supervision over manufacture to require the use of efficient machinery for the prevention of waste, &c.

12. A delegation of authority should be given to the Forest Service to enable continuity of policy, development of efficient methods, the elimination of "red-tape," and the formation of a capable, efficient, and knowledgeable staff of officers.

Results.

If a timber-sale policy is developed along these lines there should result a well-ordered system of selling Government timber, with immediate increased definite returns in forest revenue. It will ensure to the miller stability of tenure, and will place the operator in a position to finance adequately his operations. It ensures continuity of policy, and will help measurably in placing the forest industry of New Zealand on a sound and permanent footing. It ensures to the people, the manufacturer, and the consumer a fair and just management. In short, it means the greatest good to the greatest number in the long-run.

TECHNICAL FOREST TRAINING.

It has been suggested by certain laymen that a forest school in New Zealand is an unnecessary and needless expense, on the ground that only a small number of technicians would be required, and therefore it would be more economical to send abroad as needed promising material to be trained at any of the many forest schools of Great Britain, United States of America, or Canada. Your adviser submits that this expression indicates a woeful lack of knowledge, vision, or imagination, and that this sentiment results from a too-slavish adherence to old-fashioned, mid-Victorian ideas and methods.

After a careful consideration of the forest problems that must be solved in New Zealand, and the needs of the present and future in the execution of a forest policy, your investigator (with a rather extensive acquaintance with forest education and forestry progress in other countries) *unreservedly advises that a forest training centre be established without delay in New Zealand.* Experience in other countries where forestal conditions and development are similar to those in New Zealand has proven that *progress in the successful solution of forestry problems is gauged by the supply of technically trained forest engineers and officers.*

The expenditure of £3,000 per year in establishing and maintaining a Chair of Forest Engineering and a State Ranger School at Canterbury College (officered by a Professor of Forestry and an Assistant Professor) should provide ample facilities for the graduation of five to seven forest technicians per annum, and from ten to fifteen forest rangers. "At a later date when trained officers are available to carry on instructional work the Canterbury State Ranger School might be moved to the West Coast, and a second State Ranger School established in the North Island. However, for the first five years there is no reason why all forest education work should not be carried on at Canterbury College."

The writer estimates that this number of graduates may be absorbed into the Forest Service activities alone (not considering private employment) every year for a generation. If, however, trainees must be sent abroad the cost will be at least this and more, and the services of the undergraduates would be lost during the period of training.

The general principles of the science and art of forestry may be taught readily in New Zealand, and at the same time the student is receiving practical instruction in the many complex problems so peculiar to forestry in New Zealand. It is essential that during the educational period a knowledge of local conditions be allowed a chance of striking deep root.

In addition to providing instruction in forest engineering for the training of Government forest officers, due regard should be given to technical instruction in the economy of the forest industry, for the leaders of thought in this great industry are beginning to appreciate the fact that "Science is the willing handmaid of Progress," and that trained brains in co-operation with the "practical man" get results. "In a few years the timber engineer will become the leading man in forest industry. He will become the directing and driving force in converting standing timber into useful products." Instruction should therefore be provided for—

- (1.) The full technical training of forest engineers destined to occupy the senior *executive and administrative positions in the Forest Service*, or in other organizations using trained forest engineers.