

APPENDIX XII

FORESTRY EDUCATION AND TRAINING IN NEW ZEALAND

1. *History.*—In all large-scale undertakings the maintenance of and improvement in efficiency are wholly dependent upon the basic education and operational training of personnel. Forestry is no exception, and the State Forest Service, by far the largest employer of forest specialists in the Dominion, is deeply concerned in forestry education. For over a decade, since the University of New Zealand Schools of Forestry were discontinued, there has been practically no recruitment of graduate foresters or, indeed, of even partially trained foresters, thus creating a wide gap in the age classes of those engaged in this calling. Following the general recovery from the economic chaos of the early and middle "thirties," the Forest Service in 1939 initiated corrective domestic action, and, in accordance with its national obligations, finally evolved a scheme under which a regular quota of qualified foresters could be made available annually to forestry employers, both State and private.

2. *Annual Demand for Qualified Foresters.*—Without taking into account the present acute shortage of highly qualified forest officers, it must be recognized that the maximum annual demand in New Zealand for graduate foresters will not, on a long-term basis, exceed ten, and probably will be only eight. The Forest Service itself plans to absorb six annually, and anticipates that not more than four, perhaps only two will be required by local bodies and private forestry enterprise. The Forest Service will, in addition require annually an average of at least six trained forest officers without graduate qualifications, and other employers may take one or two.

3. *Standard of Forest Education.*—For many years the Forest Service has given careful attention to the question of how best to deal with new recruits. In 1939, as a result of experience with graduates and others who have been trained both overseas and in the Dominion, it was decided that a higher standard of forest education must be set for both professional and other forest officers. As forestry in New Zealand becomes more intensive and forest management units increase in number (and decrease in size), with emphasis shifting from timber sales to silviculture and sustained yield, the greater becomes the need not only for higher qualifications in professional officers, but also for more technical forestry knowledge among the forest-ranger class of officer.

4. *Post-graduate Preferable to Undergraduate Forest Education.*—For forest officers of professional rank it was decided that post-graduate training was preferable to the inclusion of forestry subjects in an undergraduate course, and that a degree in basic science subjects to B.Sc. standard should be a necessary prerequisite to such training. The only subjects made compulsory for the forestry student are botany (to Stage II, Section B), mathematics (Stage I), and zoology (Stage I). In addition to his degree subjects, the student is encouraged to study English, economics, and statistical method. The contention that a deeper knowledge is required of basic science subjects than it is possible to acquire during a four-year undergraduate course is in accord with world-wide tendencies in forestry education. Such a course of preparation not only ensures a better grounding in the subjects upon which forestry is built, but also provides a better opportunity for selecting the most suitable candidates for the profession. It has the further advantages that it enables the successful student to study his technical subjects to a higher standard; that some students to whom forestry as a calling may prove unsuitable will find their B.Sc. degree more useful in other professions than a B.For. degree; and that in various other ways it reduces the number of potentially unsuitable entrants. It was also decided that forest rangers should serve an apprenticeship as trainees in order to qualify for their basic education, the standard of which is, of course, not so high.