

Soils Bureau, Rotorua, for much information on West Taupo soils and recent volcanicity. Many rock specimens were identified by Geological Survey, Rotorua.

14. SUMMARY

A general descriptive account is given of West Taupo forest associations. Their zonal distribution is ascribed to colonisation of areas devastated by recent volcanicity. Anomalies are discussed and it is pointed out that they can be explained only in terms of Mr. J. T. Holloway's postulate of regional climatic change affecting forest stability.

15. REFERENCES

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Grange, L. I., Williamson, J. H., Hurst, J. A. (1937). Maps of Tongariro Survey District. (Geological Survey Bulletin No. 40—unpublished).
Grange, L. I. (1937). The Geology of the Rotorua-Taupo Sub-division, Rotorua and Kaimanawa Divisions, Geological Survey Bulletin No. 37.
2. Fergusson, G. J. and Rafter, T. A. (1953): N.Z. C 14. Age Measurements 1. N.Z. Journal of Science and Technology, Section B., Vol. 35, No. 1.
3. Baumgart, I. L. (1952). The Soils of Western Taupo. N.Z. Science Review, Vol. 10, No. 6.
4. Holloway, J. T., unpublished manuscript.

REVIEWS

PLANNING AND CONTROL IN THE MANAGED FOREST—By Herman Knuchel, Zurich, Switzerland. Translated by Mark L. Anderson. Published by Oliver & Boyd, Edinburgh. Pages 360, 7 photographs. English edition 1953: 35/-.

This admirable book is in fact a comprehensive course in Forest Management, being actually based on lectures delivered by the author to the Forestry students attending the National Technical High School, Zurich.

The basic principles of silviculture and management are dealt with in the early chapters of the book, but most of the space is devoted to their application to mixed selection forest in Europe in general and Switzerland in particular.

The Swiss method of "Working by Checks" is described in great detail and liberally illustrated with tabulated data, diagrams, etc., which have been converted into quarter girth, Hoppus feet and acres by the translator for the benefit of the British reader. The book concludes with extracts from an actual Management Plan.

The maintenance of the health and resistance to damage of the forest through sound silviculture is placed before all other considerations, and secondly the maximum and continuous production of valuable timber on every acre.

H. Knuchel maintains, and quotes data in support of his views, that these objectives are best achieved by a mixed, uneven aged forest managed by the check method. The clear-felling system, even-aged stands and above all monoculture on these principles are rejected and stand condemned by the data he presents.

The health and productivity of the forest is maintained by the Forester in the forest with the marking axe. He must hold the delicate balance between species and site, form and size classes, growing stock and increment. In this, the highest expression of the art of forestry, he is guided by an intimate knowledge of the locality and the results of periodic complete enumerations of his growing stock.

H. Knuchel is an authority on the indivisible arts of silviculture and forest management and, with the experience of more than a century of forestry practice at his disposal, his teachings cannot be ignored even in New Zealand where conditions are unfavourable for "Working by Checks."

The contrast is so striking between the small intensively managed forests of Switzerland and our vast Pine farms and between the two economic climates that many New Zealand foresters may decide to leave this excellent book on the shelf. This is a mistake. In fact I commend this book to our Pine farmers (and, above all, to politicians and commercially minded gentlemen) for the re-affirmation of the fundamental principles of good forestry practice found therein—principles which they are liable to subordinate to the short-term profit motive.

J.U.

THE SELECTION OF TREE SPECIES—By Mark L. Anderson.
Oliver and Boyd, Edinburgh, 1950. 146 pp. Price 12/6d.

This book deals with the siting of species in afforestation in the British Isles. The first section classifies sites, on land that is likely to be available for forestry, in terms of the plant communities that exist there, the primary framework consisting of six fertility classes, each of which is subdivided according to the degree of available moisture. A second section deals with individual tree species, and