Bulletins of the Soil Conservation and Rivers Control Council. Wellington. Obtainable free from the Council.

No. 1.—The Menace of Soil Erosion in New Zealand.
No. 2.—Tackling High Country Problem Land at Molesworth.
No. 3.—From Forest to Farmland.
No. 4.—First Steps in Soil Conservation.
No. 5.—Down to the Sea in Slips.

These bulletins which have appeared during the last two years are the beginning of a series being issued by the Soil Conservation and Rivers Control Council. They are of a popular nature written for the public in general and the land holder in particular. They are attractively printed with about half the space devoted to well reproduced photographs illustrating typical New Zealand erosion problems.

No. 1 is a general introduction to the subject.

No. 2 deals with a specific area of deteriorating high level South Island tussock grassland. An account is given of the processes of vegetational degradation leading to severe erosion, and of the response to spelling and more conservative grazing. In so brief a treatment of a subject so large and varied as the management of the South Island tussock country, over simplification of problems and remedies is difficult to avoid. The inference is that Molesworth is typical of millions of acres in Marlborough, Canterbury and Otago and that similar treatment including the elimination of private interests is necessary to their salvation.

No. 3 deals in general terms with the replacement of indigenous forest by grassland under varying conditions of soil, topography and climate, characteristic types of soil erosion which have resulted and the principles of remedial treatment necessary to minimize further deterioration. No. 4 also treats of general principles: the changes in vegetation and soils resulting from land settlement, the necessity for conserving most of the remaining forest, controlling fire, regulating grazing, improving pastures and taking other measures towards soil stability. Few foresters will subscribe to the optimistic view that the important trees of the rain forest (in which the author includes the podocarp and kauri associations but not beech) grow relatively fast and can be managed on a sustained yield basis.

No. 5, the last bulletin so far issued, deals with the Poverty Bay district where deep slipping and slumping of soft sedimentary rocks is more pronounced than elsewhere. Though the better parts of the Gisborne Land District are highly productive, it has been estimated by an officer of the Department of Scientific and Industrial Research that 89.5 per cent of its area is hilly to steep and 72.6 per cent has severe limitations as farm land through low fertility and erodibility. This latter class of land is described as probably more suited to forestry than grass.

The erosion problems are discussed and remedial measures suggested in the way of protection of remaining natural cover, pasture improvement, better grazing practices and counter-erosion planting. What can be done by well planned planting has already been demonstrated by a few far-sighted station owners in the district.

It is regrettable that a widely read bulletin of this kind should contain such misleading statements as: "Experts estimate that between 20 and 30 per cent of the land must grow timber to make the district self-supporting in its timber resources"; that a million acres of the Gisborne Land District (of about 3½ million acres) should be devoted to forestry, and that "within the Poverty Bay Catchment District of 1,250,000 acres 20 per cent, or 250,000 acres, should be the target for farm and State forestry *in addition to* (reviewer's italics) spaced protective planting." The failure to appreciate the close interdependence of the population and industries of a region and its requirements of productive, as distinct from purely protective, forest could lead to enormous economic waste. Admittedly the provision of future timber supplies in this region has been neglected in the past, but assuming a reasonable increase in the Land District's present population of about 50,000, its requirements could be satisfied by a fraction of the area of productive forest advocated. It is unlikely that the district could ever support economically a forest industry dependent on markets beyond its boundaries.

These bulletins are very valuable in directing public attention to the extent and nature of the soil erosion problem in New Zealand and pointing the way towards soil conservation by better land use practices. It is a pity that a few misleading statements have been perpetuated in print.

G.H.H.

(1) **Maps of Average Rainfall in New Zealand.**

(2) **Maps of Extreme Monthly Rainfall in New Zealand.**
By C. J. Seelye, M.Sc., Ph.D. Published by the Meteorological Office, Air Department, Wellington, New Zealand, 1945. (Available from the Director of Meteorological Services, Meteorological Office, on request).

Dr. Seelye's rainfall maps are a very welcome addition to the literature on the general climate of New Zealand. They should prove to be of immense practical value and assistance to all persons with interests in the land—to agriculturists, forest and soil conservators, engineers, geographers and many others.

The first publication consists of sixteen black and white line drawn maps of New Zealand showing the average annual rainfall, the average monthly rainfall and the average number of rain-days per year. Dr. Seelye points out that the maps were prepared originally for the projected Centennial Atlas, the publication of which has been