

The course of improvement or deterioration has been affected by economic conditions. In general, production from the hill country has been greater when prices were high, while production from the flat country has been greatest when prices were lowest because of the need to produce more in order to make a living. The hill-country farmer is unable to fatten lambs and cannot increase his flock without overstocking. Overstocking has accelerated the deterioration of the hill country by adding to the drain on natural fertility.

Economic conditions have also influenced the course of improvement or deterioration in another way. Store sheep and ewe values are liable to wider fluctuations than fat-stock prices, and the hill-country farmer is liable to suffer more severe variations from year to year than the fat-lamb producer. Under financial stringency, stocking practices are frequently resorted to on hill country which permit fern and second growth encroachment. These are overstocking with ewes, the running of ewes on country more suited to wethers, fattening lambs and cattle at the expense of breeding store stock—that is, the adoption of flat-country farming practices. In depression periods the tendency is to reduce the amount of hired labour and to postpone maintenance, and this has a more serious and lasting effect on hill country liable to reversion than on the highly-productive ploughable areas. On better country of high natural or built-up fertility less serious long-term damage arises from price recessions, and at times improved farm management practices are introduced in order to raise production. Nevertheless, it is generally true that the price recessions following 1929 prevented the introduction and extension of essential hill-country improvement practices such as subdivision, top-dressing, spelling, scrub-cutting, and cattle stocking.

### (iii) SOUTH ISLAND REGIONS

#### (a) *Marlborough*

This region, the Counties of Kaikoura, Awatere, Marlborough, and Sounds, is the Marlborough Land District and lies to the east of the main mountain chain, and stretches from the Conway River, in the south, to Cook Strait. The region throughout is extremely broken and mountainous; its characteristic grassland association was tussock, which is largely changed to danthonia. The region falls into five distinct classes:—

- (1) The Sounds County, where grazing lands are largely the result of bush burning and surface sowing late in the last century. Many of these surface-sown hill pastures, which now consist of danthonia, are reverting to scrub, and erosion is becoming evident, mainly the result of overstocking in the past. Almost without exception Romney flocks are maintained. Total numbers are declining, breeding-ewes falling from 102,000 to 97,000 in 1945.
- (2) Lands not used for any grazing purpose. These comprise the high barren country on the main divide and on the tops of the Kaikouras and the bush-clad hills north-west of the Wairau River Plain. The amount of abandoned country is being added to as erosion depletes the carrying-capacity of back-country stations. Examples are Molesworth and Glazebrook Stations, recently declared Soil Conservation Reserves.
- (3) The Seaward Kaikouras in the south, where the grassland is partly danthonia, partly better grasses. Flocks are of halfbreds and Corriedales.