



THE property, which is freehold, is farmed by Mr W. L. Elliott and is about 8½ miles from Palmerston North near the city's water supply dam at Tiritea. It consists of 512 acres and is divided by a road into two blocks, south-west 292½ acres and north-west 219½ acres.

There is practically no scrub or gorse, but about 13½ acres is in native bush and the effective grazing area is just under 500 acres. The country is rolling to steep and is typical of thousands of acres of foothill country along both sides of the Rimutaka, Tararua, and Ruahine Ranges. Some of the flatter tops and gentler slopes could be cultivated, but owing to the numerous steep gullies and the situation of fences, there are no large areas suitable for the growing of forage crops.

The height above sea level ranges from 600 to 1,500 ft and areas with westerly and northerly aspects are very exposed to the prevailing winds. Even in summer when the weather is calm and hot on the plains conditions on the exposed tops and faces are often windy and decidedly cool. The rainfall of 45 to 50 in. per annum is fairly well spread, with frequent summer showers, but the effect of these is often nullified by the persistent drying winds. Consequently the soil, especially on the exposed faces, is frequently dry for long periods in summer and autumn.

The main soil types are Makara and Ruahine silt loams, both of which respond to phosphate, lime, and molybdenum. It is probable that on the exposed faces, where stock graze but do not camp, there is a deficiency of potash.

Property before Improvement

Before the start of the improvement programme the property was divided into six main paddocks ranging from 57 to 125 acres. Much of the internal fencing was, and some still is, in poor condition, but the boundary fences were in reasonably good order. The pastures lacked vigour and comprised mainly danthonia, browntop, and sweet vernal, with some suckling clover, but were devoid of white and subterranean clovers, except on patches of higher fertility such as stock camps and sheep tracks.

Stocking was about one ewe plus replacements per acre and 55 cattle. Though the pastures were poor, the farm was understocked, and with the paddocks as large as they were, heavy stocking per acre could not be achieved. Patch grazing was therefore inevitable, with the stock concentrating on the more fertile areas and tending to neglect the steeper faces, especially when feed was plentiful. Consequently many of the faces were generally covered with rank grass of poor feeding quality throughout most of the year.

Apart from 6 tons of superphosphate and some clover seed applied to an experimental area in 1948, no topdressing or oversowing had been done. The house, shearing shed, and sheep yards were old and, in keeping with the farm as a whole, were generally in poor condition.

Development Programme

The farm was (and still is) operated as a one-man unit and, like many other hill country farms at that time, was making little or no headway owing to lack of finance and unavailability of labour for hand topdressing. Aerial

The Hunter-type fencing used in the development of the property has proved very satisfactory apart from some rusting of the chains due to poor galvanising.

topdressing was then only in the experimental stage.

In 1948 the farmer, seeking to increase production and so improve the living standard of himself and dependants, sought advice from the local officer of the Department of Agriculture. As a result the Department initially carried out some large-scale topdressing and clover-oversowing trials on the property, but later it was decided that the whole farm should be used as a development project for demonstration purposes. In 1949 the Department entered into an agreement with the farmer and a programme of planned development began in autumn 1950. Broadly the programme was as follows:

The Department agreed to provide the seed for one oversowing and the fertiliser for two initial topdressings of the whole farm. Blocks of the farm were to be treated in sequence over six years. The initial topdressings were to be followed by maintenance dressings of one third of the farm each year by the farmer.

A scheme of mob stocking and rotational grazing was to be introduced, and to carry out the grazing management required it was decided to subdivide the property into 12 main paddocks; this was later extended to 15. The Department was to supply fencing materials and meet erection costs, such fencing to be bought later by the farmer at cost.

Stock numbers were to be increased at the rate required to make the fullest