

system of crop-rotation, and are very effective in building up and maintaining the fertility of the soil. As has already been mentioned, some of the soils in Central Otago are low in organic matter or humus, and in such cases by growing grass for several years and depasturing stock thereon the ground will be considerably benefited, thus paving the way for further crops demanding a higher state of fertility. Sufficient has been stated to show that the pasture is to be recognized as the most valuable asset that can be grown by the irrigator, and every effort should be expended in having more than half his farm laid down in this crop.

As a crop, pasture is probably the least understood and most maltreated. Insufficient attention is given to the adaptability or otherwise of certain grasses and clover to soil and climatic conditions. The writers have examined many irrigated pastures, and have interrogated the owners in regard to their method of establishment, mixtures used, and subsequent treatment; and sufficient indication has been obtained showing clearly the need for a brief account being given of the lines along which pastures should be laid down in Central Otago.

LAND SUITABLE FOR PASTURE.

The best pastures will be obtained from the richest ground. It is quite wrong to assume that only the poorer pieces of land unsuitable for general cropping should be utilized for growing pastures. In many cases, however, on account of the steepness of land or its undulating nature, it may be regarded as the most economical proposition to use such types of ground for growing grass. Every farm has its piece of land which might be regarded as waste on account either of its low-lying, underdrained condition or stony nature. Such pieces of land if sown with suitable grasses can readily be brought to a comparatively high state of production. Many cases have been noted where farmers have devoted the bulk of their best land to the production of hay and commercial crops, and have relegated to their pastures the small remaining portion of poorer ground. In such cases it invariably follows that there is a lack of summer feed and a surplus of winter hay, this pointing to bad regulation of their cropping system. Indications have already been given of the opinion of the writers that as little hay should be grown as possible, sufficient only being conserved for the winter feeding of the farm stock. In view of the fact that the life of permanent-grass pastures will be extended over many years, it is advisable to have them conveniently located. Again, the fact that they require frequent irrigations should be borne in mind, and on this account they should be located where irrigation can be readily and easily carried out.

SUITABLE MIXTURES.

In laying down grass pastures the aim should be to obtain a judicious mixture of grass and clovers in such a proportion as to produce a palatable sole of grass with a high feeding-value. It is to be recognized that there is no single variety of grass having all the characteristics that are looked for in an irrigated pasture. A mixture of several varieties of grasses and clovers is usually desirable, and gives better results than any single variety sown alone. The different grasses