

The actual efficiency of farm labour itself is important and is linked with adequate training. In this respect New Zealand agriculture is sadly hampered. The adequate training of our farming youth is one of the weakest links in our farming structure. Colleges, training farms, and the like represent no adequate solution. The main body of the future farmers of New Zealand must be properly trained on the farms of New Zealand by farmers themselves. Until this is arranged in some adequate way the first essential towards development on a steadily progressive level will be wanting. The young farmers' club movement being fostered by the Department can play a quite important part, and it is suggested that all farmers should encourage their youthful employees to join such clubs.

MAINTENANCE AND INCREASE IN FERTILITY.

Development is essentially concerned with the maintenance and increase in soil fertility. The intensification of practices bringing this about are therefore of prime importance. The steady drain of fertility, represented by the export of goods from the farm, more intense with crops than with live-stock, must be made good with fertility management if advancement and not retrogression is to take place. The full exploitation of fertilizers, a proper balance between clovers and grasses, a proper balance between cattle and sheep, better crop rotation in the arable districts, and irrigation in districts of low rainfall are the main factors in fertility maintenance and increase. Of these practices perhaps the most important is that of top-dressing with artificial fertilizers, one that is, fortunately, steadily on the increase. It is significant that the top-dressing districts of New Zealand show the most striking progress, whereas those where fertilizers are little used or where it is not practicable to apply them are on the decline rather than the rise. In this respect there are great areas of mountainous tussock country steadily declining in carrying-capacity, and wide areas of high rainfall country, originally in forest and now unploughable, where nature rather than the farmer has control of future development. These two types of country, aggregating as they do nearly 16,000,000 acres, or nearly half the area devoted to production, represent the most serious agricultural problem in New Zealand, as any rise in production costs on them or any depression in prices brings them within the sub-marginal range. A certain amount of research on fertility management of these areas has been carried out during recent years, but it is essential that such work should be steadily prosecuted in the hope that practical methods may be evolved to arrest the steady deterioration now taking place.

THE USE OF INFERIOR BREEDING-STOCK.

An important factor in the quality and quantity of production and in the raising of farming-costs is that of inferior breeding-stock. Whether or not regulatory action to improve the position would be advantageous, as has been adopted in certain countries, is worthy of the closest investigation. The remedy generally advocated is stock-importation, and this no doubt is essential in a number of directions. More important, however, is a proper genetical study of the various breeding-strains already in the country, and from it the standardization of type leading towards the elimination of inferiority and the development of superiority. Up to the present the Department of Agriculture has played little part in developing methods of stock-improvement as it has in the development of many other farm practices, and until it is properly equipped in this respect its full function as the national guiding agent in progressive agricultural development cannot be realized.

ANIMAL HEALTH.

It is customary to congratulate ourselves on the absence of many serious animal-diseases rife in many other stock-producing countries. This, however, does not mean the leakage and consequent increased cost of production brought about by animal-disease is not serious. The position is far from satisfactory, and intensification of production brings in its train an intensification of the problem. Many of our most serious diseases are intimately connected with degrees in the plane of nutrition. Our grassland management and research has been more from the agronomic than the veterinary angle, and at present is quite unbalanced. Proper orientation from both angles is essential, but this will come about only by extensive research in problems now almost unexplored. On the one hand stock losses each year are costing us some millions of pounds, while on the other hand research aimed at their avoidance runs into a thousand or so annually. It is urgent that this position be rectified. In the dairy industry alone a reduction in the replacement of stock