back by top-dressing, perhaps the introduction of some seed, and adequate stocking to control the secondary growth. With country that has gone too far into secondary growth it is necessary to do much more, such as burning, resowing in a suitable grass-mixture, top-dressing and, as before, stocking sufficiently to control the secondary growth.

Cattle are undoubtedly the best medium in controlling secondary growth, but to winter them in sufficient numbers is no small problem because of the shortage of feed at that time. The wintering of more cattle is certainly correlated with top-dressing, and a hopeful avenue of experiment seems to be in the use of pampas grass as a winter fodder.

Top-dressing.

Over the whole of the King-country there occurs a medley of soil types. The country generally is based on beds of greywacke, conglomerates, limestones, and claystones covered in parts, and sometimes to considerable depths, by an accumulation of rhyolite tuff and breccia, the product of eruptions in the Taupo district. Geologically speaking, the soils of this part of the North Island are termed young soils and are recent in origin—that is, in comparison with the older and leached soils of North Auckland.

Phosphatic manuring gives the best results on all King-country soils, and this has been amply proved in many manurial trials carried out by the Department of Agriculture. Responses on grassland to lime and potash are slight generally, and farm practice and experimental evidence indicates that superphosphate is the cheapest and most efficient fertilizer for pasture top-dressing in the King-country.

Undoubtedly the best time to apply manure to pastures is in the autumn, and this tends to even out the pasture growth throughout the whole year, at the same time giving a longer feeding into the winter months. Spring top-dressing, unless for special reasons, such as hay and ensilage crops, tends to give a big bulk of feed just when it is not required. With a mild and humid summer climate, pastures in the King-country are liable to get well out of control, and the growth in the summer months is indeed rapid.

There is no doubt that the time is approaching when more thought must be given to the bringing into production of the more difficult country. It would appear that, if considerable deterioration is to be prevented from setting in as time goes on, top-dressing of the steeper country must be faced sooner or later.

—J. M. Hopkins, Instructor in Agriculture, Taumarunui.

Maintaining Healthy Seed Potatoes.

IN order to prevent deterioration or "running out" of a crop of Iron Duke potatoes because of "mosaic" virus disease a farmer in South Otago has adopted a procedure which is meeting with success and which does not necessitate an undue period of time or amount of labour.

A rapid and progressive increase in the amount of "mosaic" disease had taken place, and it was evident that unless measures were taken immediately to contend with this virus disease the parent stock would soon be useless.

Originally, the removal of all mosaic diseased haulms and tubers, as well as plants with other virus diseases, was resorted to by pulling or roguing at or before flowering, but as this resulted in the removal of a large percentage of plants the yield was proportionately decreased. After consultation with officers of the Fields Division it was decided to begin with a small area of about one-fifth acre of ground planted in large seed selected at hand-digging for freedom from virus disease and yield, and at hand-picking for type, shape, and freedom from skin and internal diseases.

Fig. 1.—A general view of the isolation plot of Iron Duke potatoes.
[A. F. Greenall, photo.

Fig. 2.—The isolation plot of Iron Duke potatoes, showing the stage of development at which the second roguing was done.
[A. F. Greenall, photo.

The ground selected was well isolated by a gorse hedge on one side and a crop of oats on the other, and was on soil not previously cropped with plants of the solanaceous family and at least a mile from adjacent farm garden potatoes or field crops of potatoes.

As soon as the shaws were well enough developed to show definite signs of mosaic disease the diseased plants were pulled out together with each immediately adjacent plant, whether diseased or not.