

and sown in September with four selections each of Plumage Archer, Chevalier, Archer, and Spratt, also with one selection of Goldthorpe Spratt. The seed was sown by hand in rows 12 in. apart and seeds placed 3 in. apart in the rows. Controls of a bulk line of Plumage Archer were sown every third row, and the whole trial was repeated eight times. Germination, although fairly even, was slow, and growth was poor. Results were indefinite, and it will be necessary to repeat the trial during another season.

#### LUCERNE.

A 20-acre paddock of lucerne sown in 1921 is still flourishing. Besides giving a cut of hay, the lucerne provided a large amount of grazing for sheep during the season despite the dry weather conditions. The effects of superphosphate applied in 1924 to certain parts of the area were still apparent. This was particularly noticeable where the lucerne is in wide rows and where no marked response was apparent in the first two seasons following the application of the fertilizer.

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## MARTON EXPERIMENTAL AREA.

### NOTES ON OPERATIONS, SEASON 1930-31.

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GRASSLAND work again claimed sole attention on the Marton Experimental Area during the season of 1930-31, the operations in the main being a continuation of work previously initiated. From a pasture point of view the season was not ideal, owing to the slow rate of growth in the spring, and this condition continued well into December. A fine autumn and early winter were followed by a wet, cold spring, with more than the usual amount of wind and a lack of sunshine. From December onwards the weather steadily improved, and in consequence growth came on rapidly.

#### RYE-GRASS STRAIN TRIALS.

These trials, which were laid down in the autumn of 1929 under the care of Mr. E. Bruce Levy, Agrostologist, comprise some 620 plots of the various strains usually found on the market under the name of perennial rye-grass, many of which are pseudo or false types and non-persistent in habit.

The differences in vegetative covering of the various plots during the spring and summer of 1930-31 were remarkable, and could not fail to impress the most casual observer with the great value of the well-known strain of Hawke's Bay rye. On the other hand, many of the false perennial strains had completely disappeared, while others, according to their degree of persistency, were declining fast. Although no white clover was sown in these plots, a surprisingly large amount of volunteer white manifested itself as the non-persistent strains of rye-grass disappeared, and in consequence clearly defined those plots. The persistent Hawke's Bay strain has rapidly built up into a vigorous sward, completely dominating the surface.