

ASHBURTON EXPERIMENTAL FARM.

NOTES ON OPERATIONS, SEASON 1922-23.

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IN this review of the past season's work at the Ashburton Experimental Farm much of the subject-matter is naturally a continuation of the two previous years' reports, and those interested are advised to study it in conjunction with the latter, which appeared in the *Journal* for September, 1921 and 1922 respectively. As in previous years, the notes have been compiled from the reports of Mr. J. G. McKay, Farm Overseer, who has carried out the work in his usual able manner.

PASTURE EXPERIMENTS.

Permanent Pasture.

Tall oat-grass having proved a failure as a permanent-pasture grass, this area was ploughed to the depth of 4 in. in the spring (1922), with the idea of trying another permanent grass-mixture. Owing to the presence of yarrow in the old sward the infested areas were cross-ploughed and grubbed once, the balance of the area remaining summer-fallowed on the one furrow.

The eradication of twitch and yarrow is a question of considerable importance in Canterbury, and no definite instruction can be laid down on this matter owing to variations of climate and soil. In the field under consideration, however, most of the yarrow was killed on the cross-ploughed section, and this method has much to commend it. Cross-ploughing cuts the turf into blocks which are thrown up in a rough state, thus allowing them to dry out during favourable weather. Continuous grubbing of yarrow and twitch-infested lands tends to consolidate the ground beneath the surface. Should wet weather then set in, stray pieces of roots are more likely to strike than if confined to the blocks as thrown up by cross-ploughing.

With the idea of ascertaining the subsequent effects of a deep ploughing on the growth and life of cocksfoot and clover, a portion of once-ploughed land was deep ploughed to a depth of 7 in. An application of 2 tons of carbonate of lime per acre was made to a portion of the field, a seed-bed was prepared, and the following mixture sown on 20th March last: Perennial rye-grass, 6 lb.; cocksfoot, 15 lb.; crested dogstail, 2 lb.; red clover, 5 lb.; white clover, 2 lb. It is intended to carry out top-dressing experiments on this area at a later date.

Paspalum.

An attempt was made to establish *Paspalum dilatatum*. A mixture of 5 lb. paspalum, 20 lb. Italian rye-grass, and 2 lb. red clover was sown on 22nd September, 1922, but, though a good strike of rye-grass and clover has resulted, there is no sign of paspalum at date of writing. It is probable that the climate of Canterbury is too cold for this grass.