

IMPORTANCE OF CERTIFIED SEED

Results From Spring-Sown Pasture Trials in the Tauranga District

THROUGHOUT the Tauranga District a fair acreage of maize is still grown. Crops are harvested from May to July, after which the stalks are usually grazed before the land is again put under the plough.

At this stage farmers are confronted with a definite problem in bringing these areas back into production. A choice of four courses is open to them—the land may be fallowed prior to sowing down in the autumn; they may grow a spring sown supplementary crop; the area may be laid down in a spring sown temporary pasture of Ital-

The general layout of each trial was as follows:—

- (a) A plot with ordinary certified seeds.
- (b) A plot with pedigree strains of seed, and
- (c) A plot sown with some of the farmer's seed mixture.

The standard mixture used in (a) and (b) was as follows:—

	Per acre
Perennial rye (certified or pedigree)	25 lb.
Italian rye	" "
White clover	" "
Paspalum	" "

Trial A, the farmer sowed the following mixture:—

Certified perennial ryegrass	15 lb. per acre
Certified cocksfoot	5 lb. "
White clover	2 lb. "
Red clover	2 lb. "
Timothy	2 lb. "

In this trial the certified and pedigree plots gave a much better strike, the Italian rye and heavy seeding of perennial rye giving a quick dense cover over the ground. The pedigree plot was superior to the ordinary certified one in sward density and speed of growth.

There was some weed present in all plots with the farmer's sowing having easily the most. His sowing of 15 lbs. rye, the only rapidly establishing grass in his mixture, had not been sufficient to give a rapid establishment of the sward.

Trial B, the following farmer's mixture was sown:—

Certified perennial ryegrass	15 lb. per acre
Certified cocksfoot	12 lb. "
Red clover	5 lb. "
White clover	2 lb. "
Italian ryegrass	3 lb. "
Prairie grass	3 lb. "

In this experiment results were almost identical with those obtained on Trial A. Weeds came up in profusion, particularly Californian thistle, amaranthus, dock and fathen. Again, the certified and pedigree plots, owing to their having a heavy sowing of vigorous, rapidly establishing ryegrass, had far less weeds.

Trial C, the following farmer's mixture was sown:—

Certified perennial rye	10 lb. per acre
Meadow fescue	6 lb. "
Cocksfoot	6 lb. "
Crested dogstail	2 lb. "
Red clover	4 lb. "
Timothy	2 lb. "
Crimson clover	2 lb. "
Lucerne	1 lb. "
Subterranean clover	1 1/2 lb. "
Paragon turnip	1 lb. "
Prairie grass	2 1/2 lb. "

This trial came up a dense mass of amaranthus. At first it was thought that the field would have to be ploughed up and resown, so dense was this weed. Both certified and pedigree plots had far less of this weed than the farmer's sowing with the pedigree plot showing up particularly well. The farmer mowed the amaranthus a couple of times and finally got it under control. His sowing then came up a dense mat of crimson clover and red clover 18in. in height. At this time there was an excellent rye-white clover sward on the certified and pedigree plots. The field was cut for hay, and the aftermath or red clover came away so strongly that a second cut of hay was obtained.

The position after the trial had been down twelve months was that the farmer's sowing had given a thin open sward with over 50 per cent. of bare ground. Red clover was dominant with extremely weak grasses while the certified and pedigree plots had excellent rye-white clover swards.

It is interesting to note that in no case had paspalum established strongly.

Conclusions

From the above trials the following conclusions may be drawn:

(1) Where spring sowing of permanent pastures is practised the inclusion of liberal quantities of certified perennial ryegrass, Italian ryegrass, and white clover is very desirable.

(2) Omit smothering plants such as red clover from a spring sown pasture mixture.

(3) Use only the best certified strains of seed.

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ian ryegrass and red clover; or they may elect to sow down in permanent pasture.

The latter course is frequently adopted with very variable degrees of success. Apart from the vagaries of climate the general tendency of cropped land to run to weeds presents a serious problem in this district.

Results of Trials

During the spring of 1938 a series of trials were laid down to obtain information on the control of twin cress and arising out of these trials, some useful information on spring establishment of pastures was obtained.

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