

SEED PRODUCTION IN NEW ZEALAND

Grass and Clover Seed Certification

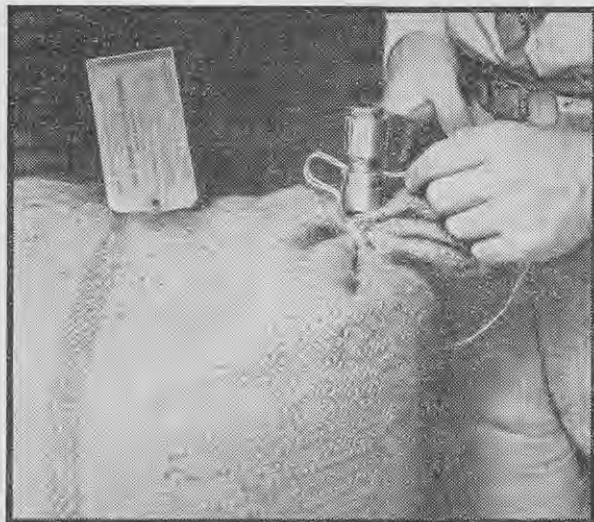
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“WHAT has been the main contribution to pasture improvement in recent years?” If this question were addressed to many New Zealand farmers, their answer doubtless would be “seed certification.” But is this really the correct answer? Only in so far as a seed certification scheme enables seed to be certified and provides a means of identifying type or strain which cannot be recognised from an examination of the seed itself. In the series of articles on seed production in New Zealand which has appeared in recent issues of “The New Zealand Journal of Agriculture” frequent reference has been made to seed certification. In this article of the series the scheme as a whole is described and its effect on pasture production discussed.

TWENTY years ago the Department of Agriculture introduced a scheme of certification covering grass and clover seeds. Before that certain farmers claimed superior results with seed from certain districts—Hawkes Bay, Poverty Bay, and Sandon ryegrasses for instance were recognised in some quarters as being better in production and permanence than ryegrasses from other districts; cocksfoot seed from Akaroa had already gained a reputation both locally and overseas. The superiority of seeds of certain origin was not generally recognised, however, nor were those who had formed opinions for themselves always able to purchase seed of the origin they preferred. The buyer was unable to obtain an assurance that any line of seed was what it was claimed to be.

Disquieting Situation

During the 1920's information was gradually becoming available from the results of investigation into pasture plants. This disclosed a very disquieting situation. Very



The final product. After machine dressing, the sacks are sealed and tagged as illustrated and a sample of the seed is drawn for the official purity and germination certificate.



An officer of the New Zealand Department of Agriculture inspecting a perennial ryegrass seed crop for certification purposes.

few good lines of perennial ryegrass existed outside the three districts already mentioned, and even within these areas lines of poor type could be found.

A really satisfactory line of Italian ryegrass could not be located anywhere—the best lines were only fair; the worst were hybrid types, which were sold either as Italian or as perennial ryegrass, depending on the market. They possessed none of the good qualities of either Italian or perennial ryegrass, but behaved in a manner far inferior to either species. Much seed was sown as Western Wolth's, but a genuine line of this variety could not be found; it was just another name for Italian ryegrass.

There did appear to be a degree of uniformity in lines of cocksfoot seed, but as many tons of seed of Danish origin had been imported from time to time, there were grave doubts that all lines finally would prove to be of the strain originating on Banks Peninsula.

Browntop was found to be uneven in type, due, on the one hand, to mixture and hybridisation with other species of *Agrostis* and, on the other, to the development of specific regional strains.

The descriptive terms applied to lines of red clover seed appeared to have no real merit. Cowgrass contained the same range of plant types as giant red clover, and in similar proportions, and buyers were misled by the attempts to create distinct types by the use of different names. At this stage Montgomery red clover had not been introduced into New Zealand and all lines of locally-grown red clover were very similar in composition.

The position regarding white clover was also obscure. Some areas were located in which a truly permanent, leafy, and high-producing strain was flourishing, but in many areas, particularly in arable districts, white clover had deteriorated virtually to an annual. This type of plant had low production and its claim to permanence was based on its ability to re-establish each season by seeding.

Isolation of Superior Strains

The picture of pasture plants in New Zealand before the introduction of seed certification was certainly far from rosy, though there were bright spots. Some good lines of perennial ryegrass and white clover could be found, and nowhere in seed-producing areas did it appear that Danish cocksfoot had become established. Though local strains of Italian ryegrass were so mediocre, New Zealand was fortunate in receiving from Europe two or three parcels of