Opening address

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ABSTRACT. Good seed is a basic requirement of all types of farming, either for sowing cash crops or the establishment of pastures and supplementary feed for livestock. From early days New Zealand farmers have been well supplied with high quality herbage seed and as a result have tended to take its availability for granted. This conference deals with the seed of herbage species which in recent years have become the "poor relations" of the seed family. The papers presented are designed to illustrate the effort which goes into the production of these seeds and some of the associated problems.

BACKGROUND

I should like to thank the New Zealand Grassland Association for the invitation to deliver this opening address. I consider it a very great honour. I would like to commend the Association on the choice of topic for this new venture and to congratulate them on their initiative.

I have been associated with herbage seeds for nearly 30 years and during that time have seen their "mana" fluctuate violently. It must be a matter of considerable satisfaction to the small band of stalwarts who have been involved in the battle for herbage seeds to see them accorded first rating in the selection of a suitable aspect of grassland farming for the initial "Grassland Research and Practice" series.

I hope I may first stray from the herbage theme and make a few general comments on the value of seed to the agricultural industry. There is, in fact, no type of agriculture or horticulture which does not rely heavily on seed to achieve its objectives. The agricultural farmer needs seed for the establishment of his crops; stock farmers must sow pastures and supplementary feed crops to provide for their animals. However, there seems to be a general apathy towards seeds resulting from a lack of appreciation of their contribution to agricultural production.

In common with most people in my age group I am drawn irresistibly to the past. If we look back to the early thirties we find the emergence of improved selections of pasture species in this country. This led to seed production of the new selections and an appreciation of the skills required to carry out this operation in a satisfactory manner.

From a humble beginning, New Zealand rose to gain world recognition for the excellence of its herbage seeds. We led seed-producing countries in seed certification and were able to supply seed of known origin with a uniformly high standard of purity and germination. As a result we were able to supply a large percentage of the European market for perennial ryegrass (*Lolium perenne* L.) and white clover (*Trifolium repens* L.).

As our seed production expanded, there arose, in suitable areas, a system of mixed farming which incorporated regular production of herbage seeds in association with pasture renewal. Leading agriculturalists studied techniques and many articles were written about herbage seed production.

The outcome of all this was a regular supply of high quality seed. This in turn resulted in the appropriate government departments directing a major part of their programme to the supervision of herbage seed production and certification. For a period it was in the top market of agricultural interests.

Then came the 1939-45 war with the resultant scaling down of agricultural services. In the post-war period, priorities were changed. The acquisition of land for rehabilitation of ex-servicemen became a major concern. Agricultural advisers became involved with this and the emphasis changed to finance, valuation, budgeting and the concept of "whole farm advice". This opened up a fascinating new field which attracted many of the leading workers

in agriculture and departmental effort was increasingly channelled into this area.

As a result, seeds received much less attention. Officers engaged in seed work were not accorded the same promotion as those carrying out the new advisory work and inevitably some changed to other work and the servicing of seeds further deteriorated. This was soon reflected in the general attitude towards herbage seed production and certification. The situation became static. Techniques remained substantially the same and our certification scheme failed to keep up with changes required to cope with the increased number of species for which certification was required.

OECD SCHEME

Herbage seed production remained almost unchanged until the advent of the OECD Seed Certification Scheme. This, followed closely by the entry of the United Kingdom into the EEC, shocked New Zealand into the realization that it was no longer considered to be in the top class of herbage seed producers. The fact that we had declined an invitation to be involved with the formation of the OECD scheme did not help.

The awful realization that they were no longer leaders in the seed world goaded the New Zealand seed industry into action. Pressure from commercial sources and submissions from seed interests in government departments resulted in a revival of our seed industry. Liaison was established with OECD organizations and a start made to re-organize. It was essential that we made the necessary amendments to our certification scheme to meet OECD and EEC requirements and enable our seeds to be acceptable in member countries. Eventually we finally qualified for full participation and had most New Zealand cultivars included in the Common Catalogue of seeds eligible to be imported into EEC countries.

CURRENT SITUATION

New Zealand also introduced "Plant Variety Rights". This is, in effect, a plant patent scheme which protects the plant breeder from piracy and enables him to obtain royalties on the seed he sells. Protection is only provided in countries which operate the scheme.

Another important factor affecting the export of our herbage seeds has been a considerable increase in plant breeding in northern hemisphere countries. Not surprisingly, these countries prefer the cultivars bred and selected for their own conditions and the sale of New Zealand seeds there are largely restricted to times of shortage or for use as amenity grasses for sowing road verges, etc.

There is considerable interest in the multiplication of northern hemisphere varieties in New Zealand for re-export to the country of origin. We now have all the necessary organization to supervise the growing of such seeds under the Plant Variety Rights scheme. Unfortunately, there are still problems to be resolved, such as unsatisfactory yields in the case of grasses and ground contamination with hard seeds in the case of clovers.

At present I believe we have largely recovered from the poor reputation that we had with the international organizations concerned with seed regulations. However, there is no room for complacency. The very fact that we are holding this meeting is an indication that there is much to be done. The situation is dynamic and demands consistent attention to avoid a repetition of our past mistakes.

VALUE OF HERBAGE SEEDS

When the value of herbage seeds is assessed, the value of exports is added to that of seed used domestically. I consider that the value of seed to our pastoral production is very much greater than this. Surely it is a major contribution to our livestock production and should qualify for a percentage of our meat sales, wool cheque and dairy produce. The exact contribution made by seed is difficult to assess, but it is considerable.

No one has bothered to publish statistics of the value of herbage seeds. They are lumped into an item "Grain and Seeds". However, "guestimates" by informed members of the trade and government departments put the total value of seed produced at between $20 and $30 million per annum. This we must agree is a modest sum compared with livestock production in the Monthly Abstract of Statistics which gives the impressive figure of $2270 million

per annum as the gross return from livestock industries.

There is an old saying that 90% of an animal's breeding goes down its throat. Let us not be unreasonable about this and settle for a mere 10% as the contribution of herbage seeds to livestock production. This would give an extra $227 million to add to our original $25 million, bringing the value up to half that of our dairy industry. If these calculations represent a realistic value for herbage seeds, they surely justify much more research into problems related to herbage seed production. However, the implementation of such projects will not be easy. A concerted approach is required from all branches of the industry. There are in existence committees made up of representatives of growers, merchants and researchers. Together these could form the initiation of a combined approach.

CONCLUSION

The committee has arranged a first-class programme for the next three days. From the papers presented you will get comprehensive pictures of the herbage seed industry and detailed accounts of many individual aspects. I am sure speakers will not only give the results of their work but indicate the difficulty of obtaining a satisfactory solution to particular problems. However, in general, the papers point to an exciting future for the herbage seed industry which is likely to look quite different in a few years' time with more emphasis on a much greater number of species *e.g.*, amenity cultivars, a greater range of legumes and new unfamiliar grasses like phalaris and tall fescue.

We have read recently of mid-Canterbury growers voicing their concern at the present economic situation. An expansion of the herbage seed industry should give improved opportunities for diversification to many of our arable farmers who are currently facing some difficulties.

It is not possible to deal with every aspect of herbage seed production in the space of three days. Let us hope that the success of this venture will encourage the committee to arrange a follow-up in the not too distant future.