
Implications of Plant Selectors' Rights for herbage seed production – trade viewpoint

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ABSTRACT. The role of Plant Selectors' Rights in encouraging private plant breeding is emphasized and the importance of developing low cost testing schemes for Rights is stressed. The excellent prospects for the development of the New Zealand seed industry are discussed.

Key words: Plant Selectors' Rights, herbage seed production, New Zealand.

INTRODUCTION

It is not intended to go into detailed statistics or details of the convention of Paris or the rules of UPOV. Rather, the broad principles of the implications of Plant Selectors' Rights will be discussed as far as they affect New Zealand agriculture, the seed trade and in particular herbage seed production.

In my opinion, the introduction of protection for new plant cultivars has been one of the most significant advances in agriculture in this century. New plant cultivars are the result of a substantial investment of human skill and labour. Breeding costs money and requires patience, time and perseverance and there must be a goal at the end. In the modern agricultural countries of the world, and in particular Europe and the U.S.A., plant breeding has shown great advances since the second world war particularly by private plant breeders, perhaps working in conjunction with governments, institutions and universities but mainly using their own resources. Breeders are ready and willing to undertake this expensive and time-consuming work, but need to receive adequate remuneration for their efforts. Plant Selectors' Rights provide this compensation

and incentive to the breeders in much the same way as the inventor of a manufactured item is covered by patent rights.

Outstanding advances in yields, resistance to disease and improved quality have taken place with a very wide range of species in recent years, including herbage cultivars, but it is probably true to say that the greatest strides have been made in cereals and other cash crops. Nevertheless, the improved herbage cultivars covered by Rights have made a very significant contribution to increased production. In some countries in a space of a few years from the time of the introduction of Rights the position has changed from one of "free cultivars" to one of almost total use of cultivars on which a royalty is paid. In this respect, I refer mainly to cereals.

In New Zealand the Plant Varieties Act was introduced in 1973 and I am certain that it was a very forward move for the New Zealand agriculture-horticulture industry as a whole. At present the number of species covered is limited but it is sincerely hoped that the range will be greatly increased in the near future.

TESTING

There are always problems when a change takes place, especially one with such far-reaching effects as this, and it is to be hoped that we do not introduce systems of testing and registration which bog down progress in agriculture just for the sake of rules and regulations. Of course the systems must be well documented and the information true, but, as has been found in Europe, the duplication and extent of field testing have proved to be a burden both in time and finance. In particular, I would like to draw comparison between the U.S.A. system and the European system which is based on the International Union for the Protection of

New Varieties of Plants (UPOV). Membership of this convention is open to countries who recognize breeders' Rights in accordance with the principles of the convention. The basic difference between the two systems is that the American system is based on the description provided by the breeder which is recorded in the computer, whereas the UPOV system calls for extensive growing trials to support the breeders' claim for Rights. I am assured that compromises have been arrived at between America and UPOV which will enable the two different groups to work together. I am certain that it is clear to those who have studied the various systems and *have* been involved, that the U.S.A. computer system, where the onus of proof is placed in the hands of the breeder, is the one which should be adopted in New Zealand, perhaps with some slight alterations. After all, just because a cultivar has protection it does not mean that it is the cultivar which must be used or has the monopoly of the trade. It still has to prove itself to the main section involved — the grower. If it yields well, is disease resistant, of good quality, and readily disposed of at a good price in *the* market, he will grow it and continue to do so until such time as it is outclassed by another superior cultivar.

BREEDING AND PROTECTION

Generally speaking, the amount spent on seed by a grower in the production of crop or pasture is a small percentage of the total cost involved when one considers labour, cultivation, fertilizer, weed control, pest control, subdivision, drainage, rent, interest, etc. — but the end result from the use of improved cultivars whether for direct cash cropping or pasture/grazing is of great significance. I recently saw a quotation at a Scottish research station which I thought was very applicable and which stated, "Nothing is progress in agriculture unless associated with profit". For the farmer to make a good profit *he* must have good yields because after all he grows crops for cash not statistics. With the herbage cultivars, dry matter yield, palatability and many other factors including permanence, particularly with our high cultivation costs, are of tremendous importance.

New Zealand has very few cultivars of herbage plants covered by plant protection but it is obvious to me that in the future all our major cultivars must be covered where improved cultivars are produced by *government* breeding. As far as private enterprise is concerned, if the protection is there they will be spurred on and will produce the cultivars required in the market-place whether it is for local use or for an overseas market. Naturally the private breeder will be dependent on plant protection to ensure he is compensated for his efforts. We have the position at present where some of the "free" New Zealand-bred cultivars are produced in other countries and sold locally, or in some cases exported and thus in competition with our own New Zealand production. In the future if cultivars receive protection this situation could be controlled.

POTENTIAL OF BREEDING

It is estimated that the world population at present is 4 billion. In thirty years' time, that is the year 2009, it is estimated it will be 7 billion and in 40 years possibly double at 8 billion. These people will require food, and seed is the great basic input for food production whether it is in the production of forage cultivars, cereals, or other crops. To me it is a simple equation that, although there will be new areas of land developed, the greatest possible chance of achieving the production of the food required is by the introduction of improved cultivars with high yields, etc., plus, of course, efficient farming practice. Surely and certainly plant protection and the incentive to provide these improved cultivars must be a keystone for our future, as farmers, as merchants and as a nation.

ROLE OF NEW ZEALAND

I want to refer specifically to New Zealand and its export potential and geographic advantages and disadvantages. New Zealand is blessed with an ideal climate for the production of herbage cultivars and recently a world authority who visited and inspected the Canterbury province stated that in his view it was one of the four great areas of the world for this type of farming, along with Denmark, parts of

Europe, and Oregon in the U.S.A. It is not generally known, but investigation confirmed, that our country is fourth equal with France as an exporter of agricultural seeds. Many other countries, of course, have a greater local market.

It is estimated that 90% of the world's population lives in the northern hemisphere and in this respect we are at a great disadvantage as regards trade. However, I feel that we do have a tremendous advantage in the fact that we are 1200 miles from the closest land mass and this provides us with an ideal situation for quarantine control. As mentioned earlier, we have the climate, and in addition we have the soil and probably of greatest importance the farmers with a high degree of expertise. I am certain that, before many years have passed, we will be one of the great nurseries of the world for the production and multiplication of high quality improved cultivars of all types of seeds and, of course, herbage seed would be an important section of this. For some years now, private companies and government departments have carried out the multiplication of plant breeding material on behalf of northern hemisphere breeders, gaining the benefit of two seasons growth in one year or a "continuous spring". Multiplication of commercial cultivars has also been undertaken and this type of production will undoubtedly increase in the future.

MARKETING

In recent years there has been a dramatic change in the marketing of seeds and this applies to herbage cultivars. The great emphasis and demand have been for named and protected varieties. Huge sums of money are in-

volved in production, promoting and marketing, and breeders or breeders' agents must be assured of protection. There are many cases of new cultivars being available but the breeders are not prepared to release them in the countries where they can be used until such time as they receive the protection which they are undoubtedly entitled to.

CONCLUSION

Therefore, to summarize, I am certain that Plant Selectors' Rights are absolutely essential for New Zealand from the points of view of both the growers and the trade, and undoubtedly for the further development of our export income.

In my opinion there is no doubt that our future lies in the further development of our agricultural resources and the production of highly specialized improved seed cultivars. This offers a great challenge for the future.

There are expanding markets for improved herbage cultivars and the main competition in the export field is from cultivars from other countries mainly from private enterprise and covered by Plant Selectors' Rights. If we are to retain our position as a leading herbage seed producing country, it is essential that the importance of Plant Selectors' Rights be recognized.

The views I have given are my own and that of our company but I feel certain that they are generally also those of the trade. As I stated before, there is a great challenge in the future. Progressive private enterprise plant breeders and the trade recognize this and are determined that the opportunities are not to be lost.