

# FARMER'S ASSESSMENT OF PLANT BREEDERS' RIGHTS AND THE ACCEPTABLE CROP CULTIVAR SCHEME

N.Q. Wright  
Sheffield

Thank you for your invitation to present this paper, and in doing so I propose to use this opportunity to discuss the growth of the seeds and arable industry and cover areas related to this industry as they affect the farmer.

The four headings I wish to discuss are as follows:

1. The growth of the Seeds Industry in New Zealand;
2. The changing pattern of farming in relation to increased cost;
3. Advantages in export production;
4. Plant breeders' rights - advantages and disadvantages.

I believe the challenge facing farmers today, and the opportunities open to farmers today are greater than they have ever been and will require men who are adaptable to never-ending change and who approach their task on a business-like basis. Enterprises are becoming larger, amalgamations are increasing - one only has to look at the statistical figures and trends in farming over the past ten years to appreciate this is happening to much of our farm land throughout New Zealand. The effect of inflation and the increasing variations in our meat and wool markets, plus increased costs of production have all meant that the farmer has been forced into the position today of a cost-price squeeze of an intensity never anticipated. Farmers are having to face up to the task of working on tighter budget controls, higher costs in labour, essential equipment and transport rates.

## 1. The Growth of the Seeds Industry in New Zealand

The seeds industry was set up under the Seeds Act of 1923 and the growth in certified seeds has developed over the years from one that has been basically able to produce high quality seeds for our own pastures to one that is increasingly competing on the world-wide markets. The growth of this industry can be brought out by the fact that since the year 1972 the total product (return) of crops and seeds has risen from \$87 million to \$145 million in 1977 projections (Report Agricultural Review Committee 28/2/77) This is comparatively in keeping with other agricultural production, but has the added advantage of giving diversification of our national product.

## 2. The Changing Pattern of Farm Production in Relation to Increased Cost

Over the years, as stated in the introduction, the seeds producer in New Zealand has developed an expertise in producing quality certified seed to both New Zealand and international standards. He has achieved this with the help of the Ministry (of Agriculture) Seeds Section, D.S.I.R. Plant Breeders Centres and an increasing amount of scientific background material for increased production per acre. This has meant that we have many farmers who are ready to enter the new era of growing and

harvesting cultivars under contract to overseas organisations.

The criteria under which these should be grown are:

- a. Contracts must be based on a cost-plus basis;
- b. There must be an assured source of reasonably priced nitrogenous fertilisers;
- c. Varieties grown must have some advantages and use, if possible to New Zealand's pastoral production;
- d. Consumers must be prepared to pay significantly higher prices for a quality product produced under strict international regulations;
- e. The varieties grown must have high enough yields to overcome the cost per acre and not be influenced by any local insects and diseases.

The extensive use and expansion of irrigation will play an increasing part in production in this field to attain these yields.

The industry must be able to re-organise its classes of seed so that the international buyer has a chance to buy our top lines of seed. At present basic seed is unable to be exported unless it is down-graded to "first generation". This gives the buyer the mistaken impression that he is only getting the second best.

## 3. Advantages in Export Production

New Zealand enjoys certain advantages for the arable industry in the export field:

- New Zealand's averages are high by world standards;
- Our growing areas are close to our ports by world standards;
- We have shown the ability to produce high quality certified seed;
- We have plenty of suitable land capable of more intensive use;
- Sales of seed and grain can be made on the futures market if desirable and contracts let before the growing season to cover sales;
- The political difficulties attendant with the developing and maintaining of market access does not apply to the same extent as with most of our major primary products;
- Grass grains comprise the largest single commodity moving in international trade.

Our total production by world standards will always be infinitesimal in relation to world trade and we have a unique opportunity to diversify in areas under the Plant Breeders' Rights Act to cater for the more intensive seeds crop, e.g. vegetables, seeds and other horticultural crops.

Other advantages include:

- the skilful integration of arable farming with livestock production where a specialisation in production of certified seeds under intensive conditions can be fitted in whilst still maintaining high stocking numbers per arable grass hectare;

– the possibility for relief in the many mixed farming districts which suffer from the ravages of grass grub and porina attacks on pastures. Diversification of these areas to arable crops minimises the overall financial loss.

#### 4. Plant Breeders' Rights – Advantages and Disadvantages

##### Advantages

1. Plant Breeders' Rights will stimulate N.Z. breeding:
  - a) At present Government departments maintain the current breeding efforts,
  - b) Private firms have recently invested a large amount of capital in breeding schemes which will give a greater volume of production and a greater variety of plant cultivars.
2. This will in turn encourage overseas organisations to provide Seed in New Zealand.
  - a) This will increase N.Z. crop production;
  - b) It will enable N.Z. farmers and trade to grow their seed for N.Z. and then re-export;
  - c) It will enable N.Z. breeders, whether they be farmers or members of the trade, to obtain new gene materials which must improve the overall cultivar variety production.

N.Z. breeders will have rights under which N.Z. cultivars can be exported. This is mainly in grasses and clover fields but with the increased competition with private breeders entering this field, work in grain could expand.

##### Disadvantages

1. The extra cost:

The extra cost to farmers of the seed based on U.K. ratings would be:

##### Barley

1st generation (12.50 pounds per tonne) (U.K.)	30 p per bushel
2nd generation (7.50 pounds per tonne) (U.K.)	20 p per bushel
1st generation (N.Z.)	48 c per bushel
2nd generation (N.Z.)	30 c per bushel

##### 2. Variety range

Up to the present time farmers have had only a small recommended list of approved varieties. With Plant Breeders' Rights a greater diversity and development of cultivars will occur and there will be a greater number to choose from.

#### 5. Exports

Criticism is leveled at N.Z. policy over the years of not exporting basic seed. We have over the years exported 1st generation only with the purpose of maintaining the export volume of herbage seed at as high a level as possible.

When exporting to the European Economic Community this does not conform to the concept of reciprocity. With regard to imports the Importations under Gazette Notice states that red and white clover import is not permitted. N.Z.'s reason for this restriction is "hard seed" problems for these two species. Community countries do not recognise this as a problem. This will have to be handled or changed in

New Zealand to operate plant breeders' rights with a view to re-exporting so that our existing markets are not contaminated.

##### Acceptable Lists

These will have to be up-graded so that farmers can recognise and accept the ratings and prestige that these lists give to any individual cultivar that is accepted, similar to the U.K. lists which even today, in some top farm managerial organisations, New Zealand cultivars are listed under their old names. e.g. N.Z. Perennial Rye Grass instead of Ruanui.

##### Maintenance of Acceptable List Testing

There is a great need for co-ordination of evaluation at all levels of D.S.I.R., Ministry and farmers, to ensure uniformity of assessment and to prevent anomalies through possible group or departmental jealousies, for instance, creeping in.

Finally, as a farmer, I feel the industry recognises the need for plant breeders' rights, the recognition of the effort that individuals, firms and Governments have put into it, that some control should be necessary, but I emphasise that N.Z. production has been built on the evaluation of cultivars for the N.Z. scene only and that in the future we must build an ability and grow for an every increasing world market which I believe we have the initiative and the ability to capture.