Nearly every country has the chance to produce certain goods and services under more favourable conditions than its rival countries enjoy. These advantages may be those of climate, or natural products such as iron & coal, or cheapness of power, or proximity to a market, or natural aptitude of the inhabitants, or cheapness and efficiency of labour. It will always be found that permanent prosperity is built on the production of goods that can be produced most favourably, and that attempts to produce goods under difficult conditions are a source of distress, worry and financial loss, often to the producer himself; only still to the country as a whole.

In New Zealand we have proved that two special industries are so suitable to our conditions that in them we have outstripped the World. These are the sheep and dairy industries. We have more sheep per head of population than any other country in the World, 20 as compared with 17 in Australia and 9 in Uruguay. In dairy cattle the position is still more marked since per head of population we have twice as many cows as Denmark, Holland or Switzerland. This development has been possible because of our climate, the natural aptitude of our people, and the concentration and portability of the product.

Is there any other industry in which we have similar advantages? The suggestion is that the seed growing industry is in that position.

For the seed growing industry to be a success it seems that the four following conditions are necessary.

1. A suitable climate, natural skill, and facilities for gradual development with our existing farm plant. These advantages we may consider we have. The climate of our eastern plains is exceptionally favourable for seed production, the chief drawback being the unfortunate development of sterility in Rye grass seed from some districts. It is probably that seed growing requires special skill, but our farmers are already seed growers to some extent and can easily modify their practice to make this activity more and more important. No revolution in practice, no expensive new machinery are necessary. Over 7000 acres of Rye grass and over 2000 acres of White Clover were cut in the harvest of 1930, and this area can easily be extended.

2. As an instance of how rapidly seed growing can extend we may take the instance of Cocksfoot in Ashburton county. In 1924 it put 1,300 acres, in 1931 it cut 4,500 acres. In 1924 it produced only 12\% of the Cocksfoot of the Dominion; 7 years after it produced 36\%.

3. The second condition is that the seed produced should be of high quality, so that it may command on the World's markets such a price as to compensate for our distance from those markets, and the heavy handling charges involved. There is no need to stress in a meeting such as this the high quality of our certified N.3. Rye grass, Cocksfoot and No.1 Wild White Clover. It may however interest you to consider why such superior strains have been found here.

Two or three years ago I undertook to raise a late flowering gorse, for some experiments being made at Cawthron for the control of gorse by a seed parasite. It can always be noted that in any hedge a few plants flower weeks earlier or later than the majority, and I intended to collect seed from such late flowering plants. I soon found however that while the flush of flowering at Lincoln takes place in September, that at Green Park only 3 miles away and on exactly similar soil takes place a full month later, and further observation showed the fact that different districts have been planted with different strains of gorse. What has happened is probably this: On one run (when
the country was held in runs) the gorse seed was obtained from a
seed merchant, who had had it collected from an early flowering
plant or group of plants in England; while the seed for the
neighbouring run had been bought from another merchant, whose source
of supply had been a late flowering plant or group of plants. Thus
original differences of source of supply in England is still
reflected in different districts here.

In the case of Ryegrass however, we have generally considered
that the source of supply in England must have been the same for
all parts of N. Z., but the following remarkable paragraph which
was unearthed by my colleague Mr. Calder, throws a new light on
that subject. It is taken from "Our Farm Crops" written by John
Wilson in 1859.

(Here follows the extract).

Thus we see that at the time N. Z. was being sown in Rye grass,
there were at least 9 named strains of Perennial Ryegrass on the
English market. It is not too much to suppose that in different
parts of N. Z. local merchants dealt with Home merchants who drew
their supplies from farms growing one or other of these strains,
so that various districts in N. Z. were sown with various strains of
Ryegrass. Grant that the fields on which these seeds were first
sown remained in pasture from the time of the original sowing,
and we see that we may have in different parts of the country,
different strains of Rye grass, just as we have different strains
of Gorse.

One further interesting fact emerges from the extract from
Wilson, and that is that all the established strains of Rye grass
have disappeared in their country of origin and have survived
under iso2 ation. In no recent work on British grasses have I
found any reference to different British strains except of
course in the most recent work at Aberystwyth. Will the recently
rediscovered strains of N. Z. Ryegrass also be lost, as its ancestors
were 70 years ago? It is the duty and privilege of the certifi-
action scheme to see that it isn't.

(3) The third factor making for a successful seed growing in
N. Z. is the provision of good seed to growers. I have little
doubt that the certification scheme is well able to undertake that.
There are difficulties in the early stages but these are being
steadily overcome. One is the high price of mother r seed; another
is the prevalence of weeds in mother r seed; and the third is the
posibility of cross-seed of True perennial with false perennial or
Italian when these are grown in adjacent fields. Each of these
difficulties is however due to the circumstances of the case. That
they have not held up development is made clear by the fact that in
the harvest of 1930 there was certified a quantity of seed equal
to 2/3rds of the whole Perennial Rye grass crop of the year 1930.
It cannot be more than a year or two before the whole of the Rye --
grass sown in N. Z. will be of the true perennial type.

Everyone connected with grass breeding however realizes
that this in itself is only a phase in progress. Whatever the
origin of N. Z. true perennial, it is now only a mass selection:
and must contain strains of differing merit. The isolation of
the best of these, the breeding and establishment and dissemination
of them is the burden of the future. Some of Mr. Calder's work
in this direction you will be able to see this afternoon.

(4) The fourth requisite of success is the provision of a
market for the seed grown. At the moment this is our most pressing
need, and I am glad to see that an important place in this
Conference has been assigned to discussion on this point.

In conclusion I think that we may fairly congratulate
N. Z. Grassland workers on the visit that has led to the present
organization of the seed growing industry, and may perhaps still
more fairly congratulate the arable farmers of N. Z. for their eagerness to modify their practices so as to seize on this new x-