

## PRESIDENT'S INVITATION ADDRESS

### POSSIBLE FUTURE CONSTRAINTS ON NEW ZEALAND'S AGRICULTURAL SYSTEM BY FACTORS OUTSIDE THE FARM GATE

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Recently in an address to an Auckland Chamber of Commerce, Mr H. G. Lang, Secretary to the Treasury, made the following statement when referring to New Zealand's economic growth and comparing it with other countries of the world.

"In fact, although such comparisons can be misleading, we are now in terms of what we can measure of material standards, one of the least well off of all the western democracies."

Mr Lang then went on to list the evidence which would support his statement, namely the high rate of consumption as against productive investment, our poor record of productive improvement in industry, the stagnation of agriculture and our tendency to prop up large firms which were uneconomic and generally investment decisions which violated every canon of efficiency. Mr Lang might well have mentioned our low expenditure in the fields of science for development and transfer of technologies and also in the social science field.

I believe as a result of this situation we have seen a reaction from politicians who are now in simplistic terms demanding structural changes. Thus there is a government policy which attempts to change attitudes in business, in unions, in the farming sector and other areas of our economy, or as the Hon. Talboys would have it -

"The benefits of import substitution are becoming less and less. The cost of being non-competitive is getting steeper and steeper. We have about come to the end of the road. There are not many goods left to substitute. The only course for those industries which want to go on growing is to shift from import substitution to export-led growth, from the corner shop to the international marketplace."

These remarks apply with equal force to both the agricultural and manufacturing industries. Quite naturally, the scientific sector can hardly expect to escape the political demand for a change in attitudes. Recently a prominent citizen enquired from me what sort of contribution had science made to agriculture in the past ten years and did it compare with their contribution of the previous ten years. This type of question is now being asked of all sectors in New Zealand today.

As businessmen, unionists, farmers and scientists we may resent such questions and consider them unfair, reactionary and totally without foundation, but wonder how the politician found out about us! It does, however, stress the need for change and even when I look at my own industry, one can see an industry in a stage of crisis, although it is difficult to recall a year when there has not been one sector or

another within the meat industry that has not been in some sort of seige either political or economic.

In a recent address before a gathering of farmers at Lincoln I attempted to demonstrate the serious situation evolving in our meat processing industry where productivity continues to decline and where costs of services, including transport both within and outside New Zealand are escalating at an ever increasing rate. As a member of the meat industry, I have often felt that we have not been understood, but it has been emphasized before that credibility is usually the result of good communications and I am afraid all sectors of the meat industry, including the farm industry, cannot make any claim of being proficient in this field.

You will notice I have opened my address by speaking of sectors of the meat industry as it has always been of some wonderment to me that the structure of the meat industry still largely remains a mystery to farmers, to politicians, the unionists and yes - even the scientist. To many it is an industry which buys livestock from a farmer or as some would have it, the farmer gives the livestock as a gift to a meat company and then by some magical process it all disappears until by another trick of magic, money pours back from overseas into New Zealand. This money is either embarrassing to governments and therefore is an evil factor causing inflation (in fact, the money is well in circulation within New Zealand as farmers have already in many cases spent the money before the overseas realisations are received from the overseas markets), or there is not enough money coming into the country because of the failure of the meat industry and this is equally as evil as this causes a recession. Thus we have the requirements for price smoothing schemes and other such schemes to maintain viable farming incomes during the periods when overseas realisations are at their lowest. Of course, this situation in actual fact proves that the funds earned by the meat industry are still a very high proportion of the total export earnings of this country. This fact alone should emphasise to our policy makers and planners the need for a close study of the meat industry's present position.

Before we take a closer look it is, I think, necessary to give to you some sort of description of what comprises the New Zealand meat industry today. Briefly it is a private enterprise sector which divides itself into companies who are either New Zealand owned (public, private or co-operative) or overseas owned - usually private companies. These companies further divide themselves into: (1) processing companies which process the meat and its byproducts either by purchasing livestock or

processing livestock on behalf of companies or farmers who do not own processing works; (2) the meat exporting company. This company is not a processor of meat and divides into two principal sectors: (i) an operator who buys livestock and exports the products therefrom, and (ii) an FOB agent, i.e. one who acts as a broker or purchases meat and by-products from either the processor and/or operator and exports the products either on a commission or straight out purchase basis. In some cases companies carry out both functions, processing and exporting. The processor may process only beef or process beef and mutton, including lamb and calves.

Reverting back to the meat processor who, as you can see, may be involved in many functions. In addition, he may be also engaged in New Zealand meat retailing, wholesaling, manufacturing and farming. It is therefore no wonder a highly complex industry employing thousands of New Zealanders and which transfers by its efforts the raw materials of animal farming into highly complex products and markets and which earns over 40% of New Zealand's overseas earnings, presents to those who wish to make structural changes within it, a somewhat daunting task. Yet, it is an industry in serious trouble as reflected by New Zealand's adverse terms of trade. It is already undergoing structural changes because of the need to introduce highly complex technological processes which in turn creates intolerable pressures on its seasonal work patterns which again in turn an unchanging seasonal farming structure does little to alleviate. Indeed, if our cattle numbers continue to decline in the North Island as sheep numbers have, and as cattle are the economic base for most large North Island freezing works, this factor alone could well make impossible the structural changes needed to bring about an economic lamb and mutton processing system.

The government regulations and demands of the market which govern the meat industry have resulted in a labour intensive industry becoming even more labour intensive whilst at the same time increasing its capital or investment intensiveness. The net result, of course, has been a sharp drop in productivity and this has contributed to industrial unrest. The technology gap within the meat industry is closing far too slowly, mainly because of lack of adequate resources especially of a technological and scientific nature. Other factors include inadequate financial rewards for management and some sectors of the work force, more particularly those within the mutton and lamb operations.

The traditional scientific concept that there is an orderly progression from basic research to the use of findings of that research is a myth which must be challenged in this technological world. It is also a barrier to obtaining greater resources for scientific effort. I would suggest to you that it is the pressures which arise from the demands of our social and technological society today which create the real demands for mission-oriented research. It is these types of demands within the meat industry and the services which service the meat industry (including the market) which should be dictating the direction of your research today rather than the demand of increasing farm production under existing conditions and systems of production. It is because of this lack

of broad approach that the meat industry instead of being boldly innovative has now become generally slow to change, and when it does, it is the immediate situation or effects which are dealt with and the real problems are left to fester and eat away other areas or sectors. Thus the building of specialist beef plants, although contributing a great deal to those who have invested in such undertakings (and quite properly so) have contributed little to servicing the mixed farming structure of cattle and sheep, and indeed has actually undermined lamb and mutton facilities in some areas of the North Island.

All these factors, together with rampant inflation and a sharply rising cost structure which in turn is already eroding the improved returns of the farming sector, thus continue to engender a lack of confidence within the farming sector. How can we therefore reverse this trend of rising costs and eroding returns? Applying some lateral thinking to the situation, should we ask ourselves - "do we really want to reverse this trend so as to arrive back where we were ten or even twenty years ago?" It is to this latter or lateral question that I would like to address myself.

First of all let us list our major problems and constraints.

- 1) Animals which provide our raw materials for the meat industry are produced seasonally and therefore, inconsistently - an impossible base for a modern technological industry.
- 2) High costs are eating away the returns from the buoyant overseas markets. These costs are caused by:
  - a) Seasonal production methods - that is to say processing peaks requiring expensive storage, machinery, labour etc.
  - b) Attitudes of labour and management to seasonal work.
  - c) Attitudes of labour to labour intensive conditions.
  - d) Lack of innovative technology relative to a New Zealand meat processing system.
  - e) Rising cost structures in other sectors of the economy which service the meat industry, i.e. transport etc., or in other words, lack of an international competitive cost structure in other sectors.
  - f) Ad hoc developments of new meat plants.
  - g) New markets requiring new types of products.

The answers to the above are, of course, obvious.

- 1) Produce animals for processing all the year round. Present scientific efforts related to better use of grass is a step in the right direction - but have we scientifically measured the inputs available for feeding animals grass, crops etc. so that we know what we should be achieving. Perhaps we are not as efficient animal farmers as we would like to think we are? Or even that the problem is not to grow more grass and crops. Should we move away from our mono-culture system towards fodder feeding, or should we be exploiting the scientific capabilities within animal husbandry, including lambing more than once a year? Most likely we need a combination of all three efforts.
- 2) Increase the flow of developments in the technical field, including computer control distribution of products, and automation of human processes. The work in this area initiated by the Physics and

Engineering Laboratory of DSIR is contributing a great deal to stimulating the industry. Nevertheless, it is in the area of development where greater resources are required.

- 3) Rationalize company organisations so that large investments in new technology become possible and enable new developments to be funded appropriately.
- 4) The appointment of a meat authority as recommended by the Meat Industry Commission so as to ensure that a sound processing structure is maintained and developed.

In other words, many of the answers lie in the scientific and technical fields. Admittedly, to find the answers requires resources both scientific and money. There is no doubt New Zealanders have taken a long time to learn that we have a unique meat industry and one which requires unique systems.

Total New Zealand scientific and technological effort is far too small and while there is a need to maintain and even increase our investment in agricultural research, there are other areas which today are recognised as important scientific areas where our endeavours are so tiny that it is really not an effort at all. To mention a few of these endeavours: there are the social sciences, manufacturing and processing, transport and those associated with land and water use. These are only some of the major areas which in New Zealand have been neglected over the years. To a large extent this neglect has been exacerbated by the failure of our education system to meet the changes within our society. This has now resulted in New Zealand having a far from egalitarian society; the effects of which are only now just beginning to be felt within our social communities.

What New Zealand scientists must therefore face is the situation where we now need a much greater effort in agriculture to bring about structural changes and we certainly require some fundamental rethinking. At the same time, however, we need a very large effort in other areas of our economy if science and technology is to make its contribution to maintaining New Zealand's prosperity in the future.

This simply means that New Zealand's scientists must accept that governments are no longer prepared to leave science and its application to scientists. As wars are too important to leave to generals, it could be said that science is too important to leave to scientists: as a result, you must expect in the future to see greater interest in the economic evaluation of scientific effort as well as more precise objective setting by politicians and governments. If New Zealand is to survive in both the economic and social sense the scientific effort and the finance allocated to scientific effort will need to be very much in favour of application and development as against research. Research will, therefore, arise from the need to apply rather than vice versa. It may well be that scientists will argue that this is what is happening today; if so, the actual problem can be stated as one in which the scientific sector must establish its credibility and state a case for greater expenditure for the application of science throughout our whole society.

The meat industry and some sectors of the exporting manufacturing industry must in particular, receive greater scientific resources and at the same time resources must be found to encourage high

quality scientific work within the social sciences where application is equally as important as in other sectors. Indeed, unless there is a considerable improvement in the application of social sciences within New Zealand, then this may well prevent the application of scientific and technological advances in other sectors.

Agricultural scientists must find ways of fitting the raw materials produced and their processing to the human factors and not the other way round. The scientific traditional approach of producing more on the same acre with less inputs is not enough in itself. Somehow you must include in your hypothesis and mission oriented work the facts, suggestions and questions which I have posed to you today. Certainly, as far as my own industry is concerned, its technological demands as well as its need for restructuring must receive the attention of the scientific community. You can no longer afford to ignore the problems outside the farm gate which lead ultimately to the consumer. To a large extent, it is these factors between the farm gate and the consumer which have been ignored over a long period of years by the New Zealand scientific community. This situation, I believe, is brought about through lack of sufficient communication between the various fields or disciplines of science rather than through lack of outside contacts. It would not be unfair to say that the hygiene and health requirements and other factors involving meat products have received little, if any, attention from the scientific community as a whole, especially of agricultural scientists. Generally, unless this omission and the problems outside the farm gate are attended to in the very near future, then your efforts within the farm gate will continue to be eroded and will ultimately lose all relevancy to our agricultural export industry.

New Zealand agricultural scientists have in the past played a vital part in setting policy objectives within our New Zealand farming sector. It is now time for these objectives to be re-assessed and where necessary, research and development work to be redirected across a much broader front than has been the practice in the past thirty years.