

A CRITICAL REVIEW OF PRESENT DAY TRENDS
IN GRASSLANDS FARMING

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In opening this session of four short talks on some aspects of Intensive Grasslands Farming, I feel that I cannot do better than to review the progress being made in the direction of improving first of all the grasslands themselves, and secondly, of improving the management of these grasslands in the direction of obtaining greater production per acre from them. The three papers to be read will, I believe, give you an indication of the capacity for high production of our grasslands and some idea of the methods by which this production can be obtained. The basis of improved production is shown to be the use, in the first instance, of the improved strains of grasses and more particularly of clovers which have been made available by research to our farmers. The method of improved production is shown to be a matter of stock management and manipulation of the grazing animal.

PASTURE IMPROVEMENT :

Let us examine the position in regard to the use of the improved strains of grasses and clovers with their much enhanced capacity for production which has been further demonstrated to us at this Conference. Undoubtedly the quickest; and I consider the best, way of making use of these strains on ploughable land is to sow after the plough. This applies more particularly where the pastures are worn out and weed infested. What progress we are making in this direction is difficult to state, as there are no records of land sown annually to pasture after the plough, though there are records of virgin land sown down, much of it, of course, by surface sowing. Annual cropping acreages indicate, however, that while in the North Island the reduction in cropping which has taken place in the past twenty years has reduced the acreage available for renewing of pastures with the plough, the position has not changed to the same extent in the South Island, where annual cropping, despite many ups and downs, has been maintained at a fairly high level of some 800,000 to 900,000 acres. A recent survey of some 1200 acres of dairy farm lands on 13 farms in Waimate West County, South Taranaki, is of interest in this connection. This is all ploughable land with a good grass growing climate, and the survey showed that of the 1200 acres there were 295 acres which were in inferior pastures requiring the plough for marked improvement. There were 628 acres of medium grassland which could be renovated by increased topdressing, the introduction of better species by surface sowing, and by improved stock management. Some 275 acres of the 1200 were in good dairy pasture and of this area only 4 acres had been sown with the improved strains of certified grass and clover seeds and none with the pedigree strains. This survey was taken in one of our most heavily stocked dairying areas and can be taken as typical of the position throughout the North Island on the older settled ploughable lands. By far the greatest use of the improved strains has undoubtedly been made on the South Island arable areas, and on the newly broken in scrub and fern lands of the North Island.

The second means of introducing the improved strains, that is, by surface sowing, has undoubtedly been used in conjunction with topdressing to a considerable extent, but here observation indicates that a good deal of grass seed has been wasted through the poor seed bed in which the seed is sown and that, except in the case of the introduction of white clover and of subterranean clover on the lighter soils, much of the effort at improvement has been wasted.

In the case of unploughable country and more particularly the hill country, good progress has been made in the introduction of clovers, especially subterranean clover. This work was held up during the war owing to fertiliser and labour shortages, but the immediate post war years saw a revival of interest in this

method of improving hill country pastures and the stage was all set this year for a very marked development in the programme of hill country topdressing and oversowing with clovers. The use of the pedigree strain of white clover, in conjunction with subterranean clover where necessary, was on the threshold of being a new development when the increase in the cost of phosphate manures called a sudden halt to any such schemes of hill country pasture improvement by oversowing.

To sum up this aspect of Grassland Farming, I would say that there is still tremendous scope for (a) a plough up and re-sow policy on our so-called better grasslands, as a means of making use of the pedigree strains of grasses and clovers with their enhanced production capacity; (b) with cheap phosphates there is also tremendous scope for the improvement of hill country pastures by oversowing with clovers and that the next advance in this respect would undoubtedly be the introduction of pedigree white clover with its greater capacity to respond to phosphate manuring; (c) there is also scope for the improvement of medium swards on ploughable land by the surface sowing of pedigree white clover so long as good ryegrass is available in the sward to respond to the nitrogen supplied by the clover.

GRASSLAND MANAGEMENT:

The second aspect of Grasslands farming I wish to deal with is that concerned with the management and utilisation of the pastures themselves whether they be good, medium, or indifferent. Here again, the papers to follow will indicate the importance of grazing management in the productivity of the sward, and they will further indicate the methods by which the basic principles of good pasture production can be translated into practice, with advantage both to the farmer and the farm.

I am most concerned not with the principles or practice, but with the progress being made with pasture management practices, which it is believed hold out considerable promise in regard to increasing the production of foodstuffs and wool from our grassland farms. Though actual details cannot be produced as evidence, my observations during the War years indicate that a considerable extension has taken place amongst our farmers of those grazing management practices which will be referred to in more detail in the three following papers. I am of the opinion that the marked retrogression in production of meat and wool and of butterfat which could have been expected with the very heavy reduction in phosphate manures available during the War to our farms, has been countered to no small extent by an improvement by our farmers in the management and utilisation of their pastures. That there is still room, however, for an outstanding increase in production from our grasslands through an improvement in the grazing management on the lines adopted by our leading grasslands farmers must, I think, be conceded even by the most ardent advocate of the idea that New Zealand has no scope for more production or more farmers. Farms producing 250-300 lb. of butterfat are sufficiently numerous in our main dairying districts to indicate that this production per acre is not freakish but that it can be readily achieved by methods which we know well. Moreover, these high production farms are not confined to our so-called rich lands - they can be found on the gum lands, the pumice lands, the sand country, the light volcanic soils, the stiff clay soils - in fact on almost any ploughable land and on unploughable land as well. The common factor is efficient pasture management and utilisation.

Again, on our fat lamb farms the areas carrying six to eight ewes per acre are not to be found only on our naturally rich soils. As a matter of fact the best translation of pasture production capacity into actual fat lamb production is to be found on some of our lighter lands where the contrast between the carrying capacity of the best managed farms and the poorest is a matter of up to five and six ewes to the acre.

Finally, on our hill country some progress is being made

in the realisation on the part of some at least of our farmers that grazing management can play a very important part in the halting of deterioration in carrying capacity, and can in fact effect a rather remarkable upward trend in the carrying capacity and in the health and wellbeing of the sheer, flocks and cattle. Progress in this respect is lagging far behind that on lowland farms,

While the manipulation of cattle by our leading exponents of hill country management has had a marked effect on hill country grazings, evidence is accumulating that the same practices of spelling grass, of saving grass, and of mobbing stock, particularly, the ewes, for more systematic and controlled grazing of hill country, can be expected to give the same results in improved carrying capacity and wellbeing of the stock that are being achieved by our leading dairy farmers and fat lamb raisers. Because of the difficulties, real or imagined, of mobbing and shifting stock on hill country, I imagine that the adoption of these practices in pasture management as are being proved to be effective in arresting deterioration, will be very slow unless some better means of demonstration can be put forward.

In conclusion I would like to bring to your notice the fact that, while progress in pasture improvement and more particularly in better management and utilisation of pastures is being made, this progress is relatively very slow. Over twenty years ago the methods advocated today and illustrated in the three following papers were propounded and put forward by farming papers and by leading agriculturists in this country, and yet the number of farmers on each of the main types of grassland farming who have adopted the practices then advocated (apparently with considerable advantage to themselves) is still relatively very few. We must ask ourselves what is the reason for this slow progress and what can be done to speed up the development of better pastures and better utilisation. I would suggest that the lesson of the past fifteen to twenty years is that a few only of our farmers can translate principles into practice. That it is mainly by the demonstration of practice as exemplified on the leading grassland farms of this country that a speeding up of the adoption of worth while methods will be achieved. In short, we should intensify the use of Farms and farm practice in bringing to farmers in general knowledge which they are more likely to be able to apply after having seen the results demonstrated under a diversity of practical farming conditions.

In this we are, I believe, fortunate in that Farmers who have been able to translate precept into practice are, in this country, always willing to place their knowledge and experience at the disposal of their fellows.
