
REPORTS BY SPONSORED DELEGATES TO THE 8th INTERNATIONAL GRASSLAND CONGRESS

Some of the Association's sponsored delegates to the Congress presented reports to the conference and expressed thanks for the privilege of attending the Congress.

SOME IMPRESSIONS OF BRITISH FARMING

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My main impression from a visit to Britain in 1960 is that British farming is acquiring a "new look". This new look is not universal and does not apply to a large number of small, poor farms, but the upper strata of British farmers are making so much headway that New Zealanders could learn a great deal from them.

The basic factor in this new look is money, mainly from subsidies. The net farming income of Britain's 300,000 farmers is about £350 million, of which about f300 million comes from subsidies. While subsidies are essential for the survival of the smaller farmers, the upper strata are rapidly reaching a stage of efficiency where subsidies are not required. Whatever our opinion of such subsidies may be, we nevertheless have to live with this philosophy. Britain starved in two world wars and is determined not to repeat the process. As a consequence, all sections of the community are convinced of the need to subsidise agriculture. Subsidies do make for some incredible farm management, but they are providing the impetus for enormous development.

The first lesson I had to learn in England was that I had to change my ideas about the use of fertiliser nitrogen for pasture in that country. This was the most interesting and controversial session of the Congress with Mr J. O. Green, of the Grasslands Research Institute at Hurley, putting forward the new British view on nitrogen use, and Dr P. D. Sears very ably presenting the New Zealand philosophy.

For years we have had two opposing schools of thought: the New Zealand view of complete dependence on clover nitrogen, and the Dutch view of complete dependence on fertiliser nitrogen.

Britain and many other countries have compromised somewhere between the two viewpoints.

In 1956 at the 7th Grassland Congress Professor T. W. Walker introduced a controversial note by demonstrating that the use of nitrogen up to about the 6 cwt level achieved no increase in total production from the grass-clover sward. In the intervening four years several workers have repeated and confirmed these experiments. The British viewpoint has now swung this way: a straight grass-clover sward will produce about 4,000–5,000 lb of dry matter. A little (2-6 cwt) nitrogen does not materially affect this total; with adequate nitrogen a grass sward will produce 10,000–20,000 lb of dry matter, so that for high producing grasslands the pendulum has swung almost entirely to bag nitrogen. Many New Zealand visitors to Britain over the past ten years have picked up the compromise philosophy of using a little nitrogen, and there is a considerable use of this fertiliser in a minor way in this country. However, the weight of evidence seems to be against such use. The phrase “judicious use of nitrogen” is often heard. Perhaps there is some case for its use for preventing winter burn, for altering the season of growth, or for redressing the balance in a clovery sward, but the net gain is probably small.

To what species is high nitrogen applied? In England at the moment S22 Italian ryegrass is the grass considered most suitable. Clovers may be sown with it but are of no purpose. Irrigation is essential for full use of nitrogen, which is applied at 4 cwt per cut or graze, giving a total of 200-400 lb of nitrogen per acre. From our local viewpoint the cost factor is vital. Nitrogen is 6d. a pound in England and 1s. 6d. here; clover is inefficient in England and efficient here; the price of the animal product is much higher in England.

One immediate effect on New Zealand could be a lower demand for our clover and grass seeds. However, it is as well for us to realise that the winds of change are blowing in the grassland world and we may gradually find that our present philosophy is out-moded.

A further development of these high-producing grasslands is the use of zero grazing where the grass is cut and fed to housed animals. While this is not common, a few enterprising farmers are using it very efficiently on farms where pugging is severe and access is difficult. One such man is W. Smith, of Derby. He is essentially a cropping farmer with 170 acres out of 220 acres producing high yielding cereals and vegetables. Fifty acres are devoted to grass for dairy cows. This latter enterprise, while profitable, is mainly for fertility restoration. Mr Smith believes that grass grows by inches but dies by feet. His grass is S22 Italian,

left down for two years, irrigated and given 400 lb of nitrogen, 200 lb of P_2O_5 , and 300 lb of K_2O annually. Five to six cuts are obtained, yielding 20,000 lb of dry matter over seven months. One such field produced 1,428 gallons of milk per acre over the growing season with the **cows being given** 3 lb of concentrates per day. With a harvester, one hour is required daily to feed 52 cow equivalents, surplus grass being made into silage. The saving in fencing, water supply, and access roads probably offsets the cost of feed cartage. The farmyard manure is applied to high producing crops such as potatoes or vegetables.

Another cropping farmer in Yorkshire was using a similar system for dairy cows and his aim was 50,000 gallons of milk from 50 acres of grass plus 1 lb of concentrate per gallon. Such production is so far ahead of average farms in Britain (and in New Zealand) that the system must be treated with respect.

The nitrogen influence has even spread to fat lamb farms where on perennial ryegrass 10 ewes are being carried and 400 lb of lamb meat produced per acre.

There are many more good cropping farms than there are good pastoral farms. In the best districts yields are extremely high in spite of very severe rotations. Good farmers expect between two and three tons of wheat, oats, or barley per acre. The use of high yielding (but often poor quality) varieties, extensive weed control, and heavy fertilisation on soils of good structure permits rotations such as winter wheat, spring wheat, barley, cocksfoot seed (one year). Expenses are low in that there are no fences, gates, water supply, or buildings required; also rents are low. The fertiliser programme for wheat of one such farmer with 250 acres was as follows: 60 lb of nitrogen, 60 lb of P_2O_5 , and 60 lb of K_2O at sowing; 80 lb of nitrogen in the spring and 40-80 lb of nitrogen at shooting. He was earning 20 per cent on his capital investment.

Subsidies lead some farmers into peculiar farm management; for example, a Salisbury Plains farmer with 400 acres grew nothing but barley; he was selling it off the header at £16 per ton, but was receiving the Ministry's subsidy of £12 in addition.

To summarise: thanks to plentiful finance British farming is on the move. We can expect increasing competition in our traditional market for dairy products, fat lambs, and mutton. However, there are more people in the world every day and standards of living are gradually increasing. For the quality products we produce there is a world market, at a price. It behoves us to emulate some of the enterprise of the British farmer to produce more efficiently in order to compete effectively in **such** markets.