

REPORT ON THE XTH INTERNATIONAL
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D. B. EDMOND

Grasslands Division, D.S.I.R., Palmerston North

THE OFFICIAL LANGUAGE of the Congress was English, which is not generally spoken in Finland. All communications were printed in English, and the whole proceeding was efficiently organized and very successful. There were the usual pre- and post-Congress tours, also very successful. Attendance was 450 with representatives from 42 countries (notable among countries not represented were India, Pakistan and China). More than 230 papers were presented in four concurrent sessions and four plenary sessions, all in the Porthanian Building of the University in Helsinki.

At the initial business session, Professor P. Saarinen (Finland) was elected President of the Congress. An important recommendation concerning a permanent secretariat at FAO Headquarters, Rome, was discussed, and invitations to act as host country for the 1974 Congress were received from Canada and Russia. At the final business session it was agreed to investigate a permanent secretariat as recommended, to urge the use of metric data in papers, and to endeavour to reduce the number of papers presented by absentee authors. By a margin of 19 votes, Russia was recommended as the host country for the 1974 Congress. Dr R. M. Moore (Australia) reported good progress in planning the XI International Grassland Congress to be held at Surfers' Paradise, April 1970, and quoted New Zealand's offers of assistance.

The few New Zealanders were well received, and they participated in all activities-delivering papers, chairing or recording sessions, in discussion, at entertainments and on tours.

The first plenary paper "Milk production on protein free feed, using urea and ammonium salts as the sole source of nitrogen" was wide ranging and a remarkable effort by

Professor A. I. Virtanen (Finland), Nobel Prizewinner and famous for A. I. V. ensilage method. Other plenary papers dealt with Finnish grasslands, nitrogenous fertilizers and grassland productivity, grassland development and the responsibilities of developed to underdeveloped countries, and efficiency of dairyfarming in six different countries. New Zealand low-cost, all-grass farming appeared in a good light.

The session, "Grassland Production", considered leaf area indices, chlorophyll contents and carbohydrates related to growth rates. In discussion, particular mention was made of restrictions to photosynthesis due to accumulations of carbohydrates. Uses of nitrogenous fertilizer, up to 2 tons/acre/annum, for rapid grass growth were reported. Only one or two authors were interested in the significance of legume growth to pasture productivity, Water relationships and weedkiller usage received little attention. The importance of roots and of soil, as such, were largely overlooked.

The session, "Grassland Utilisation", considered the occurrence of dung fouling in European and American pastures, where it is stated to be a real problem. A number of papers focused on *in vitro* digestibility of herbage, but unfortunately there was not a paper reporting what an animal actually selects and eats. Weight gains of up to 800 lb meat/acre/annum were reported. Several papers discussed ensiling and silage, the apparent consensus of opinion being in favour of wilting before ensiling. There was no report of conservation of pasture herbage in an unchanged form. Dr R. B. McGarrick (Ireland) reported that animal weights could be useful in short-term experiments provided gut fill is measured.

Papers in the "Plant Breeding and Seed Production" session were varied. There was reported to be scope for selecting white clovers with improved nodulation. Aberystwyth reported a promising plant secured by inducing crosses between Italian ryegrass and tall fescue. There was limited reporting of breeding for plant quality from an animal's viewpoint. It was reported that seed is being shuttled about the world for seed increase purposes, under O.E.C.D. guarantees. This had proved to be acceptable, except that where large climatic changes were involved some moderate shifts in type had occurred.

“Natural Pastures and their Improvement” attracted a set of speculative and philosophical papers. In the areas concerned, material resources are limited and most workers took the long-term view. In a problem area in Israel, *Oryzopsis holciformis* was a quick establisher and persistent through drought. The Australian merino had deposited one-third of its faeces on less than 5% of the grazing area. Techniques of research in these pastures were reported. Tropical pastures received attention and much more information will become available at the Australian Congress in 1970. To emphasize the need for a balanced all-round view, one paper reported the need to enclose cattle in order to protect open grazing for elks.

FOOTNOTE

The Congress papers probably reflected the range of work being undertaken round the world. Thus it was disturbing to find that the mechanisms involved in cold and drought resistance were not receiving much concentrated attention, that water relationships generally and the more detailed aspects of plant competition were undermanned. The outright importance of soil to plant growth was largely implied. There was little development of new pasture management systems, most authors electing not to present their crystallized ideas. In all phases of the work, New Zealand has much to contribute at these grassland congresses. The range and quality of the papers presented at the Congress, and its undoubted success, indicated clearly that grassland research and development is progressing apace all round the world-but so much remains to be done.
