

ELECTION OF HONORARY LIFE MEMBER

ARCHIBALD GYLEN CAMPBELL M.Agr.Sc. (1st Hons)(N.Z.), N.D.D., F.N.Z.I.A.S.



When Archibald Gylen Campbell embarked on his scientific career at Glasgow University in 1941 he would have been hard pressed to imagine that he would complete it on the other side of the world after making major contributions to New Zealand agriculture in such disparate fields as pasture agronomy, disease control and animal breeding.

Archie Cambell graduated B. Sc.(Agric) from Glasgow University in 1948 after an undergraduate career interrupted by war service in the Royal Air Force. This was followed by a National Dairy Diploma from the West of Scotland College of Agriculture in 1948, and a Post-graduate Diploma from Reading University in 1949. He first came to New Zealand on a grant from the Scottish Department of Agriculture to study grassland farming and graduated Master of Agricultural Science with 1st Class Honours from Massey College in 1951. He then returned to the United Kingdom where he was employed first by the Milk Marketing Board and then as an experimental officer studying arable crops for the Edinburgh and East of Scotland College of Agriculture.

He was subsequently recruited by Dr. C.P. McMeekan to establish an Agronomy Section at Ruakura Animal Research Station to study the effects of grazing stock on pasture production. The recruitment was notable for McMeekan's not uncharacteristic casual disregard of application

closing dates, "unsuitable candidates" and formal administrative procedures.

From the start Archie was associated with No. 2 Dairy at Ruakura where he developed ways of monitoring pasture performance under grazing. Archie recognised that the cumulative dry matter production curves so beloved by plant breeders had little relevance to the grazing situation as they ignored the fact that much of the dry matter produced died and decayed. He introduced the concept of net pasture production as being the gain in dry matter from pasture growth less losses through death and decay. In so doing he showed that the *autumn flush*, then considered important to farm management, was largely an illusion. He advocated the use of what are now the current methods of measuring pasture utilisation, displacing previous measures which had misleadingly implied that 90 to 100% of the pasture available to grazing animals was actually eaten.

The concepts and research procedures Archie pioneered may now seem commonplace but that in itself is a mark of their importance as the foundation of our understanding of the agronomy of grazed pastures. On the practical side they contributed to the attainment of the very high per ha production for which No. 2 Dairy is justly famous as a leader in New Zealand farming. In seeking to maximise farm profitability Archie also evaluated alternative systems, examining the possibilities and problems of raising dairy beef calves, comparing the merit of different dairy breeds, and evaluating the place of maize supplements in the Waikato. In each of these areas Archie has played a part in establishing the management systems that are now an integral part of New Zealand dairy farming.

Archie also played a leading role in developing methods of controlling facial eczema. He led the team that established the pasture spore count levels likely to cause clinical disease and with D.P. Sinclair and J.N. Parle demonstrated the effectiveness of thiabendazole as a fungicide for controlling *Pithomyces chartarum* —thereby giving farmers their first really effective method for preventing one of the major diseases affecting livestock in New Zealand. He then demonstrated his versatility by venturing into animal breeding. Showing resistance to facial eczema to be heritable and suggesting that breeding resistant sheep offered the only longterm and permanent solution to this debilitating disease. Archie subsequently established the first flocks selected specifically for facial eczema resistance. More recently Archie and his colleagues have also confirmed that resistance to ryegrass staggers is genetically based.

Archie has served this and other kindred Societies well as Management Committee member, Editor, and President. He first joined this society in a student in 1949. He renewed his membership when he returned to New Zealand in 1957 and has remained a member ever since. He was member of the Management Committee for 8 years from 1961 until 1969, serving as Editor for 5 years and as President in 1967-68. Archie also served on the editorial panels for *New Zealand Agricultural Science*, and *Grass and Forage Science*, edited *New Zealand Beef Production, Processing and Marketing* for our sister society the New Zealand Institute of Agricultural Science and on many occasions chaired the internal refereeing committee that was once a feature of publishing from Ruakura. His editorial skills are well known to his colleagues but the origins of Archie's command of the English language are obscure. Born in Kilmacolm, Scotland and educated at Glasgow University there is some doubt as to whether Archie can claim English as his mother tongue. Archie helped establish the Waikato Branch of the Institute of Agricultural Science, and served as committee member and President of the Waikato Branch of the Economic Society of Australia and New Zealand. His contribution to New Zealand agriculture was recognised by his election as a Fellow of the New Zealand Institute of Agricultural Science in 1976.

Archie's breadth of knowledge has been put to use in the international area. leading the team making

an economic and technical evaluation of a proposal to establish a dairy farm at Quetta, Pakistan for the Ministry of Foreign Affairs in 1974, reviewing beef production research within the Malaysian Agricultural Research and Development Institute in 1977 again for the Ministry of Foreign Affairs and lecturing and reviewing projects related to milk production in tropical Mexico at the Superior college for Tropical Agriculture in 1980.

In recommending Archie Campbell to Dr C.P. McMeekan, Prof. W. Riddet, then Professor of Agriculture at Massey College, wrote in 1956.

"Campbell proved himself a very careful and critical observer possessed of a sound knowledge of the practice and science of agriculture. He was deeply interested in land utilisation and equally interested in animals and grasslands.

As a man Campbell has a very pleasant personality and readily makes friends with others. He possesses a fund of good common sense and I believe, would be a good addition to your technical team."

Those words could equally well be written today.

In recognition of his contribution to New Zealand agriculture and to this and kindred societies Archibald Gylen Campbell is nominated for election to Honorary Life Membership of the New Zealand Society of Animal Production.

N.R. Towers