

DANIEL STEWART MacLAGAN
BSc, PhD, DSc(Edin), FRES

Dr Daniel MacLagan, a distinguished agricultural zoologist, died on 3 February 1991 at the Royal Victoria Hospital, Edinburgh.

He was born on 3 June 1904 at Williamstone Farm, Madderty, Crieff, a farm in which he retained an interest and involvement throughout his life.

After acquiring an honours degree in agricultural zoology in 1928, MacLagan was awarded a Ministry of Agriculture Scholarship which allowed him to continue his studies, first at the Parasite Laboratory, Imperial Institute of Entomology, followed by a year at Harvard University.

As a consequence of his distinguished student career he became a Carnegie Research Fellow at Edinburgh University culminating in the award of his PhD. He was then appointed in 1934 as an Assistant Lecturer in Aberdeen University where he continued to pursue his research with great determination and vigour. The scientific merit of his studies on *Smythurus viridus*, the clover springtail, was recognised by the award of the DSc in 1936 when he was still a comparatively young man.

On appointment in 1937, as Lecturer in Agricultural Zoology at Armstrong College, University of Durham, he was thereafter to pursue a career in teaching and research related to agriculture.

In 1944 he was appointed as Head of the Zoology Department at the West of Scotland Agricultural College at Glasgow and Auchincruive continuing in this post until his retirement in 1969.

Dr MacLagan published some 40 major papers primarily on insect populations, insect ecology and on the arachnid and insect pests of crops and livestock. Work on theoretical models of insect population densities led to the development of prediction models on insect infestations and of control techniques for a range of pests, including leather jackets, carrot root fly and cabbage root fly. This work was novel and exceptional in its field and merited his election as a Fellow of the Royal Society of Edinburgh in 1946.

He had a unique ability to combine excellent basic research with applied work, which had a significant influence in agricultural practice. A series of studies on ticks (*Ixodes ricinus*) led to methods of control involving the use of insecticidal creams for the protection of young lambs, a technique still in use in a modified form. He also made a major contribution to the development of insecticides and techniques for the control of warble fly in cattle.

He showed great vision and perspicacity as he was one of the first, in a series of articles and papers in *Nature*, to draw attention to the problems associated with the use of pesticides in agriculture notably the organochlorines. At the same time he was also writing popular articles dealing with the residual effects of pesticides and about care in the choice and use of them by farmers and others. In this respect he was unquestionably a visionary whose concern for the environment was ahead of its time and which created a new approach to pest control that is now widely accepted.

Indeed his popular articles for advisory and extension purposes were exceptional for their remarkable clarity and lucidity.

MacLagan was a widely popular teacher, always seeking in his students the achievement of high academic standards coupled with precision and accuracy in interpretation and analysis.

Dan MacLagan was of a generous disposition. Before he retired he gifted a sum of money to fund periodic lectures to be given by an eminent zoologist in Glasgow or at Auchincruive. Following his death he provided legacies to the West of Scotland Agricultural College and to the Macaulay Land Use Research Institute to promote research and the training of young scientists. These stipulated that research on soil flora and fauna and on environmental problems such as soil pollution should be supported.

The Scotia Agricultural was founded through the initiative of Dan MacLagan who not only provided the inspiration and ideas but also the initial finance to establish it. He perceived a need for a forum for the discussion of the economic, social and environmental implications of developments in Scottish agriculture. He continued his interest in agricultural science until his latter days and his influence will continue through his generous donations for scholarship in agricultural science.

J M M CUNNINGHAM