

Foreword

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The professorship of Animal Science at University of Helsinki was founded on the 7th August 1906. The third incumbent of this chair, Esko Kalevi Poutiainen, was born in Heinävesi thirty years later on the 13th November 1936. This special issue of *Agricultural and Food Science* was compiled to celebrate the centennial year of the chair in Animal Science, and it is dedicated to Professor emeritus Esko Poutiainen on the occasion of his 70th birthday for his outstanding contribution to Finnish animal science research and education.

Professor Esko Poutiainen completed a B.Sc. degree in Agronomy in 1962, the degree of M.Sc. in 1963, and was awarded the degrees of Lic.Sc. and Dr.Sc. in 1968. All degrees were from the Faculty of Agriculture and Forestry with Animal Science as the major subject studied. Professor Poutiainen started his scientific career as a research scientist at MTT Agrifood Research Finland (previously Agricultural Research Centre of Finland) in 1962. After two years of work at the Pig Experimental Station he moved to the Institute of Animal Husbandry and continued his research career reaching the positions of senior and then principal research scientist. He was appointed Docent in 1970 and Professor of Animal Science at the University of Helsinki in 1972. Professor Poutiainen held the professorship until he became appointed Director General of MTT in 1984. He retired from this position in 1999.

In his doctoral thesis Professor Poutiainen went into the field of rumen physiology. The thesis was entitled 'Factors influencing flow of fluid, saliva and some cations through the reticulo-omasal orifice of the cow'. Adopting a physiological basis and approach to experimentation was a characteristic of his subsequent research work conducted at the Department of Animal Science at University of Helsinki. His research covered a wide range of topical issues related not only to digestive physiology and metabolism of cows but also to dairy cow feeding strategies. For instance, Professor Poutiainen led a large research project supported by funding from the Academy of Finland to examine the flat rate system of concentrate allocation on grass silage based dairy cow feeding. During the years of his professorship, Professor Poutiainen also focused on research related to feed resources, feed conservation methods and the nutrition of calves and beef cattle. With respect to teaching, Professor Poutiainen adopted new pedagogical methods and modernized teaching at the Department. He was an inspirational lecturer and an encouraging teacher. For this reason his students were not entirely enthusiastic about his leave of absence for a couple of years focusing solely on research, nor his leaving from the Department to accept the Directorship of the MTT.

Professor Poutiainen has made a major contribution to the development of current animal science research and education in Finland. That he has worked long periods both at the University of Helsinki and MTT has extended the scope of his work in several key areas. During his time at the University he pro-

moted research funding by working as a committee member of Agriculture and Forestry Science within the Finnish Academy. He also actively initiated research projects and sought research funding from external sources. With this respect he clearly led the way, since at that time the role of external research funding was not as crucial to research as it is today. For instance, in the mid-1980s he initiated the so called Basic Research Project jointly funded by the Finnish Feed Industry, to adopt and develop modern research techniques in the field of rumen physiology at MTT. He recognised the significance of an in-depth scientific knowledge base required to underpin more applied research and agricultural applications. Moreover, he understood the importance of post-graduate education for the research institute, and encouraged young researchers to pursue post-graduate studies. As a consequence, many of his former students carried out their doctoral studies at the Animal Production Research of MTT.

Professor Poutiainen has been involved in numerous committees, scientific and other societies promoting Finnish agriculture. However, his interests did not lie only in Finnish agricultural research and education. Throughout his career he has also considered the global impact of animal science. Already at the early stage of his career he worked as a visiting scientist abroad, and he consistently encouraged his students to visit foreign universities and research institutes. During the late 1970s he worked for several years as a feed resources expert for the FAO in Rome. Accordingly, he often had foreign undergraduates from developing countries working with him at the Department of Animal Science. While leading the MTT he established relations with the International Livestock Centre for Africa (ILCA) and was a member of the board of trustees for ILCA in 1991–1994. Within this co-operation framework some of his former students worked as research scientists for several periods of time at ILCA. Professor Poutiainen is internationally recognised as an expert in his field, as can be seen from his many international positions of trust, including being invited as a member of the council of the World Association for Animal Production (WAAP) between 1983–1998. Naturally, he was the Conference President of the VI World Conference on Animal Production organised by WAAP in Helsinki in 1988. Even after retirement he has been involved as an invited member in various groups evaluating agricultural and food research both at home and abroad. Professor Poutiainen is also an Honorary Doctor of the Estonian University of Life Sciences from 2005.

This special issue of *Agricultural and Food Science* includes ten articles from the field of Animal Science. Nine of the articles are original research papers and one is a comprehensive review on recent advances in forage evaluation. Most of the papers deal with ensiling of grass and dairy cow nutrition, issues that are familiar to Professor Poutiainen, even though the perspectives and research methods may have changed. However, the flow of nutrients from the rumen, such as some cations Professor Poutiainen once studied, remains an important area of research. With this compilation of publications we, former colleagues and students as well as younger scientists, want to express our sincerest gratitude and esteem for Professor Esko Poutiainen's invaluable contribution to animal science and the animal production sector.