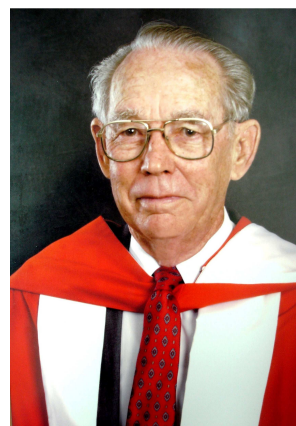


Emeritus Professor Jack Frederick Loneragan

7 May 1926 to 11 August 2009

By Emeritus Professor Jenny McComb of
Murdoch University



Jack Frederick Loneragan was born in Guildford WA and received his secondary schooling at Wesley College. He served with the RAAF as a radar operator in the latter phase of World War II. His first degree was in Botany from the University of Western Australia. He received two prizes and was awarded first class honours in 1950. Supported by a Hackett scholarship and later a CSIRO studentship he and his wife Mona set off for the University of California, Berkley where his research in plant nutrition earned him a PhD, and he formed many international links that were continue throughout his career.

On returning to Australia in 1953 he worked as a research officer, subsequently senior research officer, in the Plant Nutrition Section of the Division of Plant Industry in Canberra. In 1961 he returned to Perth as a Senior Lecturer in Soil Science at the University of WA. There he further consolidated his reputation as a leader in plant nutrition research. He rose to be a Reader and Dean of Agriculture in which role his skills as an administrator were appreciated.

When Murdoch University was established in 1974 he was one of the foundation professors who shaped the philosophy and structure of the Murdoch degrees. Many of the key aspects such as flexibility, delaying specialization, early consolidation of learning skills and interdisciplinary studies were revolutionary at the time and only now being picked up by some other universities. His skills as an administrator were much appreciated and he was twice called on to be Dean of the School of Biological and Environmental Sciences (1974-77 and 1981-1984), and served terms as chairman of the Board of Research and Postgraduate Studies, chairman of the Academic Staff Promotions Committee, was an elected member of Senate, and first elected chairman of Academic Council and Pro-Vice-Chancellor (Academic). In the last year of his Murdoch service he became Pro-Vice-Chancellor (Research) and for 31/2 months Acting Vice-Chancellor.

Jack was an innovator in the science of plant nutrition and its applications. He proposed the concept of functional nutrient requirements, developed flowing solution culture systems for studying nutrient uptake at realistic external concentrations, proposed the concept of variable nutrient mobility, developed biochemical indicators of copper deficiency and developed lime pelleting for the establishment of legume pastures on acid soils. The main themes of his research, on which he wrote timely and insightful critical reviews, were: the

nutrition of symbiotic nitrogen fixation by legumes, especially on acid soils; factors affecting nutrient uptake, particularly micronutrients and cations; nutrient distribution in plants and its relation to phloem mobility; the physiological basis of plant analysis, and; understanding the nature of nutrient interactions. Later in his research career he turned his formidable skills to nutrition of tropical legumes through collaboration with Thailand and made significant contributions to boron nutrition. His research on nutrient distribution and nutrient mobility are the foundation of modern plant analysis which is used throughout agriculture, forestry and horticulture in Australia to manage crop nutrient supply. His work with Alf Anderson on lime pelleting was the basis for the massive expansion of subterranean clover pastures onto acid soils in southern Australia. Throughout the almost 30 years of his career as an academic Jack guided numerous PhD students and mentored many post doctoral fellows in plant nutrition, many of whom went on to become outstanding scientists. Through the international and national network of plant nutritionists that he nurtured, Jack was instrumental in a series of landmark international symposia on copper (1981), manganese (1988), zinc (1993), and boron (1997) in plants and soils. The proceedings from each of these became classic works in plant nutrition. He was a Member of the International Council of Plant Nutrition, serving as its President 1989-93 and hosting the 1993 International Colloquium in Perth, and was the keynote speaker at the 1997 Colloquium held in Tokyo.



After his retirement he became from 1995-2000 WA coordinator of the Crawford Fund for International Agricultural Research. During this period there were 35 trainees and 18 workshops with a total of over 300 participants, a level of activity that has not been equalled.

Jack was one of the first West Australian's elected to the Australian Academy of Technological Sciences and Engineering, being made a Fellow in 1977. He was also a Fellow of the Australian Institute of Agricultural Science and Technology and received their medal in 1985. He was President, Royal Society of Western Australia (1981-82), awarded the honorary degree of Doctor of the University from Murdoch in 1989, and appointed member of the Order of Australia in 1991. In 1993 Murdoch University asked if the new Biological Sciences building could be named after him, but he insisted that the honour be shared by Mona who ably supported him throughout his career, and worked tirelessly in the early days of Murdoch's establishment to help new arrivals and their families settle into Perth.

Jack was quietly proud of the achievements of his four children and took great pleasure from the development and activities of his 11 grandchildren. He loved music enjoying singing in choirs, and kept fit playing and coaching hockey, and in later years gardening and golf.