

OAFS Tribute to Distinguished Professor Deli Chen AO FAA

Born into a small farming family in rural Jiangsu province of China, Deli worked behind water buffalo ploughing the family's rice paddy and in harvesting each season's rice. At the same time, he was serious in his school studies and earned the highest grades in the local school system. After completing secondary schooling, he was awarded a prestigious scholarship to attend the leading Nanjing Agricultural University where he earned a BSc in which he excelled. He was then awarded a scholarship to complete his MSc at the Institute of Soil Science of the Chinese Academy of Sciences. From his exceptional performance in the elite Academy's program, the University of Melbourne granted a scholarship for Deli to complete a PhD in the agricultural sciences.

Deli's star continued its trajectory as he rose through the academic ranks to become the first mainland Chinese-born Professor in the University of Melbourne, Australia's leading university. His excitement and energy remain hallmarks of the large research group that he oversees. Over three decades at the University of Melbourne he grew to make such major contributions to sustainable agriculture in Australia and worldwide that he was appointed as an Officer of the Order of Australia, and within the University was recognized as Redmond Barry Distinguished Professor.

Today, 2026, as the discipline leader of Soil and Environment Research in the School of Agriculture, Food and Ecosystem Sciences, Deli is a highest-rank professor of the University of Melbourne. Doubling as Director of the prestigious Australian Research Centre Research Hub for Smart Fertilisers, his research has direct applications to improved efficiencies in agricultural production and environmental care. His visionary research has mitigated ecological impacts of agricultural fertilizers on waterways and water quality, and also reduced highly potent greenhouse gas emissions. This ongoing research has been recognized by the highest honours and awards in his fields.

Among the awards and honours conferred on him, Deli has been elected a Fellow of the Australian Academy of Science, was recipient of the International Fertilizer Association's Norman Borlaug Plant Nutrition Award, made a Lifetime Honorary Member of the International Union of Soil Sciences and of Soil Science Australia, has received the Frontiers Planet Prize, the Kingenta Agricultural Science Award, and the Soil Science Australia J.A. Prescott Medal. He is a Fellow of the Soil Science Society of America, Soil Science Australia, and the American Society of Agronomy. Apart from his professional and academic recognition, his overall contributions were recognized as being those of a significant Australian through being admitted to the Order of Australia.

Such recognition does not come lightly as it relies on global peer assessment and industry acknowledgement of the benefits from his applied research activities. It has relied on Deli's remarkable ability to communicate his conceptual ideas clearly and enthusiastically with the result that his research has expanded the application of complex science in multi-variable biological systems. His research focuses on nitrogen dynamics in plant-soil systems, nitrogen fertiliser efficiency, animal waste management, mitigation of greenhouse gas emissions, and remediation of environmental pollution. His leadership of a large cross-

disciplinary research program integrates plant science, soil science, chemistry, chemical engineering, and industry partnerships. One notable output has been the development of a new generation of 'smart' nitrogen fertilisers that deliver transformational improvements in nitrogen use efficiency and environmental sustainability. In addition to his own research, Deli productively led the University as an envoy introducing his Australian colleagues to research leaders in the Chinese Academy of Science. Among his other contributions, he was also instrumental in the negotiation of MOUs and the development of joint University of Melbourne degrees with Nanjing Agriculture University and Chinese Agriculture University.

With a publication record to date of more than 360 peer-reviewed journal articles that include papers in *Nature*, *Science*, *Nature Geoscience*, *Nature Sustainability*, *Nature Water*, *Nature Food*, *Nature Communications*, and the *Proceedings of the National Academy of Sciences*. His work has been cited over 27,000 times, with an h-index of 84, and he is recognised as a Highly Cited Researcher by Clarivate™, ranking in the top 1% globally by citations in his field. As the lead chief Investigator, Deli has been awarded national and international competitive research funding totalling around A\$75m (A\$46m since 2015).

The Society of Old Agriculture Fellows is proud to record this tribute to a current outstanding leader associated with agricultural science at the University of Melbourne.

