Awards of the Tropical Grassland Society

The Society awards Fellowships to those within its membership who have made significant contributions to the understanding, use and improvement of tropical and subtropical pastures.

An annual award, The Tropical Grassland Society–ANZ Bank Award, is made to a commercial operator who has been an innovator in some aspect of tropical grassland development.

Fellows of the Tropical Grassland Society 1991

RICHARD MORRIS (Dick) JONES

Dick Jones obtained his B.Sc. Agr. degree at Sydney University in 1958 and was employed by the NSW Soil Conservation Service from 1959–65. During this time he completed an MSc degree in 1962 at the University of Witwatersrand, Johannesburg, South Africa, on the topic 'secondary succession on the highveld'. His work with the New South Wales Soil Conservation Service centred on the reclamation of 'scalded' areas in Western New South Wales. It was successful in establishing that scalds could be reclaimed without soil disturbance, provided water could be ponded on them. This resulted in leaching of salts from the surface, improved water infiltration rates and enabled seedling establishment.

In 1965, Dick joined the CSIRO Division of Tropical Crops and Pastures in Brisbane and has remained with the Division, progressing from his appointment as Experimental Scientist to his current position as Senior Principal Research Scientist.

Initially, in conjunction with Dick Roe and Mac Rees, Dick carried out research on the suitability of pasture species and their nutrient requirements for use in the dairying areas of S.E. Queensland. The work highlighted the importance of legume persistence and the different mechanisms by which persistence was achieved. It was to be an area of work which was to become prominent in the Division. The logic, skill and thoroughness with which he investigated the demography of legume species in grazed mixed pastures has led to international recognition as a pasture ecologist. Such recognition was not however, the driving force for his work. The goal was to provide practical information to graziers which could be used to effectively manage legume-based pastures. Dick's work has had relevance to most of the successful sub-tropical legumes currently used, from Siratro to leucaena and white clover. The modified techniques for measuring seed reserves in soil and in faeces, and the modifications to the Dry Weight Rank method for estimating pasture composition are in widespread use in Australia and overseas.

Dick has an excellent record of not only doing research but also of publishing the results. His impressive total of some 110 publications (including 15 contributions to book chapters and reviews on pasture ecology) is clear testimony to his prodigious research effort.

Dick has always been keen to foster collaboration with colleagues in other institutions and to share his findings with them. This attitude has been important in strengthening ties between CSIRO and other institutions and CSIRO and producers. In addition, he has spent time and effort in jointly supervising students for higher degrees and providing work experience for overseas visitors to the Cunningham Laboratory, most of whom have been privileged to see their work written up for publication through encouragement and support from Dick.

He was Secretary for two successful Tropical Pastures Conferences in 1985 and 1990, served as Division of Tropical Crops and Pastures representative on the Queensland Herbage Plant Liaison Committee and on the joint DTCP-QDPI Committee on pasture plant introduction and evaluation for northern Australia, being Chairperson from 1989–1991.

The Tropical Grassland Society of Australia is indebted to Dick for the prominent role he has played since 1965. As well as being a keen supporter, contributor and an organiser for field meetings held by the Society, Dick has served as Newsletter Editor (1977, 1978), Editor of Tropical Grasslands (1979, 1980), Treasurer (1987, 1988, 1989) and currently oversees the book sales operation.

Those who have worked with Dick have found him to be not only an excellent scientist, but a quiet, warm, thoughtful and understanding person, ready to listen, eager to help and totally dependable.

Fellows of the Tropical Grassland Society 1991

GERARD JOHN MURTAGH

John Murtagh obtained his B.Sc. Agr. degree from the University of Sydney in 1958 and was appointed to the NSW Agriculture Experimental Farm at Wollongbar in the same year. He joined a combined University of Sydney-NSW Agriculture Research Team investigating the causes of decline in soil fertility and dairy production on the "Big Scrub" soils of the Lismore district. Here, he initiated the first regional evaluation of tropical legumes in New South Wales. Early establishment problems of these legumes on cultivated seedbeds led to pioneering work on the use of herbicides and the role of inoculation for successful establishment of lablab and glycine; for which he was awarded a M.Sc. Agr. degree. He delivered a paper on species research to the first meeting of the Tropical Grassland Society of Australia in Lismore in 1963.

His interest in the physiology of growth of pastures was further developed at the University of North Carolina, where he investigated light and competition effects in grass swards. For this he was elected to the Phi Kappa Phi Honor Society of North Carolina State University — the highest academic award of that University. On his return to Wollongbar, John continued his studies on establishment of oats, and utilization of subtropical pastures for dairy cows.

Studies on the environmental effects of light, water-use and nitrogen on plant growth have led to a better understanding of herbage production and allowed extension workers and farmers to devise better management strategies for temperate and tropical species. In other practical approaches, John assisted in developing "feed year" pastures for dairy cows on alluvial soils, developed irrigation schedules for ryegrass and subtropical grass pastures for the north coast, and evaluated the carrying capacity and milk production from intensively managed kikuyu pastures.

As a plant physiologist, John has made a major contribution to our knowledge of plant responses to environmental factors and published over 20 papers in this area of research. He devised a model for growth of kikuyu grass which incorporates light interception, temperature and nitrogen supply. He investigated the effects of soil water content and evaporative demand on kikuyu swards, and reported that kikuyu growth was very sensitive to water supply and increasing evaporative demand — which explained the reduced response when kikuyu is irrigated in dry spring months. He also developed a number of transformations of normal meteorological measurements to make them more meaningful for agriculturalists and to extrapolate data to other regions. Lately, John has expanded his interests to investigate the effects of water stress, temperature and season on tea-tree growth and oil production in coastal NSW and Queensland.

John has maintained a keen interest in the activities of the Tropical Grassland Society since its inception. He has organised field excursions in New South Wales and was the co-editor of the Proceedings of the Third Australian Conference on Tropical Pastures. The demands for his knowledge and services have come from many quarters, including advice on the development and use of tropical pastures in Bhutan and as an exchange scientist with the DSIR in New Zealand.

John has always followed his desire to understand the basic principles underlying production systems in agriculture with enthusiasm. This, coupled with a quiet but sympathetic attitude to his fellow workers, has earned him respect and friendship from many workers and farmers in Australia and overseas.

Tropical Grassland Society — ANZ Bank Award 1991

Red Daley

Red Daley, of M.B. Daley Pty Ltd has contributed to tropical pasture development in the areas of grazing management and fertilizer usage for dairy production and soil conservation.

Red and his family have been dairying in the Millaa Millaa area for over 50 years.

Originally, his pastures comprised tropical grasses and nitrogen, but with the advent of legumes, he changed solely to tropical grass and legumes. These pastures comprise Nandi and Narok Seteria, Greenleaf Desmodium, and Malawi Glycine. When these pastures were introduced, their management needs were still largely unknown. Through careful observation and good farming techniques, Red has evolved a sustainable legume farming system.

He was one of the first farmers in the Millaa Millaa area to split paddocks into smaller areas, in order to give the legumes the combination of low stocking rate and long spelling time they require. He also maintains Signal grass and Malawi Glycine mixed pastures through the use of spelling.

He has always made extensive use of fertilizer, and understands the importance of maintaining soil fertility.

The net result is that his milk yields from pasture are outstanding. He has pioneered the technique of establishing legumes into grass-nitrogen paddocks, and regenerating rundown paddocks by undersowing an oats crop with grass-legume during winter. This system is now widely used in the high rainfall southern Tableland areas. By doing so, steep paddocks are not left ploughed and prone to erosion during the high intensity summer storms encountered during the normal December planting period. As Malawi Glycine is herbicide sensitive, establishing the legume in this way reduces weed competition. In addition, valuable winter grazing is obtained from an area that would otherwise be locked up.

Numerous field days have been held at Red's farm, and he is always co-operative with visiting groups.

Through the use of fertilizer, pasture management, supplementary feeding and breeding, Red and his family are maximising milk production from the tropical grass-legume system, and are an example for other farmers.