

AWARDS OF THE TROPICAL GRASSLAND SOCIETY OF AUSTRALIA

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

FELLOWS OF THE TROPICAL GRASSLAND SOCIETY — 1988

TONY REES EVANS

Tony Evans was born in Wales and graduated from the University of Wales with a B.Sc. in 1955. He obtained a Diploma in Tropical Agriculture from the College of Tropical Agriculture in Trinidad in 1957 and a M.Agr.Sc. from the University of Queensland in 1972.

After obtaining his D.T.A. in 1957 he joined the British Colonial Agricultural Service in Kenya where he worked on pasture research and animal production.

In 1961 Tony joined the CSIRO Division of Tropical Pastures where he has worked on pasture development and management, ruminant nutrition and management and pasture—animal interactions. He has always been closely involved in research on the interaction between ruminants and the pastures on which they graze. This has led to his close association with many primary producers.

In 1975 he was appointed a Principal Research Scientist.

In 1986 he became Project Leader of an A.C.I.A.R. Project—"The South East Asia/Pacific Forage Research and Development Program."

Between 1969 and 1984 he has also worked as a Consultant, Adviser and Lecturer on tropical crops and pastures and on grazing management in Malaysia, Cuba, Mexico, Sarawak, the Solomon Islands and East and Central Africa.

He was president of the Tropical Grassland Society in 1981 after having been Secretary in 1969 and 1970 and is still an active member of the Society.

FREDERICK HAROLD KLEINSCHMIDT

Frederick Harold Kleinschmidt is Dean of Agriculture and Head of the Department of Agronomy at the Queensland Agricultural College.

After completing his Q.D.A. at the Queensland Agricultural College in 1944, he went on to achieve his B.Agr.Sc. at the University of Queensland in 1948. After graduating, he was appointed Research Officer with the CSIRO Division of Plant Industry at Ayr where he undertook early irrigation trials on the Burdekin. However his major area of professional interest was soon to come to the fore when he transferred to the CSIRO Division of Land Research and Regional Survey at Katherine to undertake studies in pasture agronomy from 1952 to 1955.

This experience provided a varied background for his move into agricultural education. He was appointed as Lecturer in Botany and Agrostology at the Queensland Agricultural College in 1955, Senior Lecturer in 1972 and Principal Lecturer in 1982. He became Head of the Department of Agronomy in 1976 and in 1987 was appointed to the additional position of Dean of Agriculture.

In these various roles he has made a major contribution to the teaching of pasture agronomy during the dynamic developmental period which began in the 1950s. He adeptly integrated his formal teaching of pastures with field experimentation and farm

practice, and was able to instil a sense of enthusiasm for his subject area in many of his students. He was awarded a Master of Agricultural Science by the University of Queensland following intensive research on irrigated pastures in the late 1960s and early 1970s. Lately, as Dean of Agriculture, he has overviewed the operation of the College production units and has been closely involved in the expansion of both dryland and irrigated forage resources.

During the 1970s, Mr Kleinschmidt undertook two consultancies in Tonga under the auspices of the Australian International Development Assistance Bureau to advise on the management of both natural and improved pastoral resources in that country. In 1982, he was engaged as a consultant in agricultural curriculum development at the Fiji College of Agriculture. In all cases, his counsel on agricultural matters in general and pasture development in particular was highly valued.

Mr Kleinschmidt has had a close interest in the development and utilisation of new pasture cultivars, and is a long standing member of the Queensland Herbage Plant Liaison Committee. He was chairman of that Committee from 1986 to 1988. He has been a member of the Divisional Advisory Sub-Committee, CSIRO Division of Tropical Crops and Pastures since 1985 and was President of the Tropical Grassland Society of Australia in 1983.

JOHN RICHARD WILSON

John Wilson has been an active member of the Society since its inception, and has made a major contribution to research on tropical pastures over the 26 years he has worked with CSIRO. He has also made substantial contributions to education, communicating the philosophy of improved pastures by editing books and journals, and to the operation of the Society as an office bearer.

John Wilson has made contributions in three areas of forage physiology that are relevant to growth of pasture plants, their response to stress and their nutritive quality. In particular, he has made a major contribution to understanding the reasons for the low nutritive quality of tropical grasses.

His work on plant and environmental influences has explained the low nutritive quality of tropical forages in terms of high growth rate, specialized C₄ anatomy, and low content of non-structural carbohydrate. He has also shown how these inherent disadvantages are accentuated by high growth temperatures that increase the rate of tissue ageing and lignification of vascular and supporting anatomical structures, and hence lower digestibility of the forage.

His collaborative research with Professor R. H. Brown has shown a physiological basis for the low protein content of tropical grasses. This work indicates that restriction of leaf area development is the most sensitive physiological response to low-N conditions, that tropical grasses are less sensitive in this response than temperate grasses, and that high nitrogen use efficiency is not invariably linked with the C₄ photosynthetic pathway.

John Wilson's work on salt and water stresses has shown the robust nature of the *Rhizobium* symbiosis under saline conditions and that, in naturally occurring situations of water stress, the value of osmotic adjustment is in its effect on tissue survival rather than on continued growth. These physiological and chemical studies of water-stressed plants also allowed a new interpretation of the effects of drought on nutritive quality explaining the often-observed beneficial effects of dry conditions on animal liveweight gain.

John has been a supervisor of post-graduate students from the University of Queensland, University of New England, and Queensland Institute of Technology who have been studying for Honours, Masters or PhD degrees. John has also made a

major contribution to communicating results of research and ideas on tropical pastures. He has been editor of the Society's Newsletter, Tropical Grasslands, and 2 major books: "Plant Relations in Pastures" and "Advances in Nitrogen Cycling in Agricultural Ecosystems".

John has always been an active and dedicated member of the Society. He has served on the Executive Committee as Editor of Tropical Grasslands, Newsletter Editor, and Field-Day Organiser. Moreover, he is a strong supporter of Field-Days and of transferring the results of research to the farming community.

TROPICAL GRASSLAND SOCIETY-ANZ BANK AWARD

1987

JOE OLIVE

Joe Olive is a grazier of long-standing in central Queensland and has pioneered the development of tropically adapted cattle and pastures for the coastal beef industry. On his property 'Granite Vale,' St. Lawrence, Joe was confronted with low fertility soils and areas thickly timbered and incapable of finishing cattle. A steady programme of tree clearing and pasture sowing over 30 years has now converted the property into a sound breeding and finishing operation.

From his initial plantings of Townsville stylo to his current enthusiasm for ponded pastures Joe has been at the forefront in transforming research into commercial practice. Along the way he has experienced establishment failures and seen many of the new pasture species prove unsuited to his property. Nevertheless he has maintained a firm belief in the advantages offered by improved tropical pastures and continues to support their evaluation and release. The present development emphasis on the property is on ponded pastures based mainly on para grass with pangola planted around the margins of the ponds. But a wide range of dryland species including verano stylo, siratro, Callide rhodes grass, Koronivia grass, Indian couch, *Leucaena*, *Setaria*, *Urochloa* and many other species have also been tested and utilised on 'Granite Vale'.

Joe Olive has always been willing to share his knowledge with fellow graziers, as the steady stream of visitors to his pastures attests. 'Granite Vale' cuttings have been distributed far and wide over coastal beef holdings. Joe has freely made his property available for field days, other extension activities and applied research. In recognition of his standing he was invited to address the Third Australian Conference on Tropical Pastures where he detailed his experience with improved species.

Joe has been particularly innovative in the development of planting techniques for ponded grasses. This has contributed much to the wider availability and utilisation of these species. Through his efforts Joe has provided an important link between applied research and the commercial use of tropical pastures. In doing so he has greatly improved the profitability of his own operation and has helped many others to profit similarly. Joe Olive is a worthy recipient of this inaugural award for innovation in tropical pasture development.

1988

JOHN RAINS

John Rains, of Mareeba, North Queensland, had made a major contribution to tropical pasture development in seed production, seed industry organisation and the promotion of use of tropical pastures.

In seed production he has developed sophisticated management systems that enable him to market high quality seed reliably and cheaply. He has then sold with minimum profit margins in the knowledge that cheap seed is a pre-requisite for long term heavy demand. With crops such as Verano stylo, this has enabled the retail price to be kept virtually constant over a period of about fourteen years, in spite of substantial inflation. The growing use of legumes in the dry tropics owes much to this policy. His technical advances, especially in weed control and harvesting, have greatly increased the overall efficiency of seed production for dry tropics pastures, not only with stylos and other legumes, but also with grasses such as gamba and urochloa.

As President of the Queensland Seed Producer's Association and an active member of the Seed Industry Association of Australia, he has worked very hard to consolidate and stabilise the position of the pasture seed industry. Through contribution to the dialogue on such subjects as seed standards, labelling, cultivar release, quarantine and weed seed legislation, he has done much to ensure that full account has been taken of the views of producers in the decision making that so vitally influences the orderly supply of seed.

Since entering into active domestic seed marketing, he has come to assume a central role in the overall strategy of promotion of pastures for the dry tropics. This has arisen through his willingness to visit cattle stations (to facilitate which he has learned to fly and bought an aircraft) to advise on pasture development, and to provide seed either free or at low cost for both private and public evaluation.

The momentum of change in cattle station management in northern Queensland (and to a lesser extent much further afield), with its growing exploitation of sown pasture, thus owes much to John Rains' vigour and initiative.