

## McMEEKAN MEMORIAL AWARD 2004

### Professor Colin William Holmes B.Ag, PhD

Professor Colin Holmes is a long-standing member of the New Zealand Society of Animal Production, who was recognised by the Society in 1997 by the bestowal of the Sir Arthur Ward Award. His over thirty years of service to agricultural education and the New Zealand dairy industry up to that time have been summarised in the oration given for this award and published in the 1997 Proceedings (57: 315-316).

Since then, Professor Holmes has continued to show leadership in the areas of dairy research, education and extension, and this was recognised by the dairy industry in 1999, when he was appointed as the inaugural Professor of Dairy Production Systems at Massey University. This chair was initially funded jointly by the university and the then New Zealand Dairy Board. Industry funding is now provided by Dexcel through the dairy industry-good levy.

The extent of Colin's activities in all areas of dairying is far-reaching, both within New Zealand and internationally. His contribution over the last five years to research, education and extension will be discussed separately. However, it should be noted that Colin is very much a "systems man", who would see all of these interacting as part of an integrated commitment to the well-being of the dairy industry.

#### Research

The research undertaken by Colin over the last five years has centred on dairy systems and includes:

- A three-year comparison of systems with herds calving at different dates (funded by Kiwi Dairy Company, Dairying Research Corporation and Technology for Business Growth)
- A study of the effect of genetic differences in live weight on dairy cow productivity (funded by Livestock Improvement Corporation)
- A study of the relationship between somatic cell counts and mastitis (funded by Livestock Improvement Corporation)
- The establishment of a certified organic dairy farm and a comparison of the management practices with those of a more conventional dairying system.

He has published more than thirty scientific papers over this time, including fourteen in these Proceedings



Colin is also chairman of the New Zealand project group for an international study comparing Holstein-Friesian (HF) cows from different genetic strains - High Breeding Worth Overseas HF, High Breeding Worth New Zealand HF and Low Breeding Worth New Zealand HF (daughters of 1970s NZ proven bulls). This Strain Trial is funded for \$2 million over six years and involves researchers from Massey University, Dexcel, Livestock Improvement Corporation (LIC) and Teagasc – the Irish agricultural research organisation. The study

represents a co-ordinated multidisciplinary approach to determine both the 'ideal' animal for pasture-based dairy systems and the optimal management system for these cows, with a view to the future needs of the dairy farm system for efficiency and profitability. The New Zealand results will be co-ordinated and integrated with results from a similar trial being undertaken during the same period at Moorepark Research Station, Ireland, thus providing potential efficiencies from having seasonal research conducted in both hemispheres.

Colin is a member of the National Mastitis Committee and the Livestock Improvement Corporation Expert Advisory Group for Animal Evaluation. In this latter capacity, he undertook a review of the Global Funded Genetics programme and provided nutritional requirements of dairy cows for calculation of Relative Economic Values. He appeared as an expert witness on behalf of Livestock Improvement Corporation in the recent court case contesting the validity of the new Animal Evaluation scheme.

#### Education

Professor Holmes teaches a wide variety of papers at Massey University to undergraduate students in the Diploma in Agriculture and Bachelor of Applied Science, Science and Veterinary Science degrees. He is responsible for a post-graduate paper in Advanced Dairy Production, which is now being offered extramurally, as well as to internal students at Palmerston North.

A major focus of Colin's educational activities is the supervision of postgraduate students. Since 2000, he has been Chief Supervisor for five PhD, nine Masterate, two Honours and two Postgraduate Diploma students, and Co-supervisor for five others, including three PhDs. The esteem in which his research into pastoral dairying is held internationally is reflected by the fact that almost half of these students come from Latin America.

### **Extension**

Professor Holmes is widely known throughout the New Zealand dairy industry as a clear and effective communicator with a passionate commitment to the dairy farming community. He is a firm believer in the necessity to maintain profitable pastoral systems based on a sound understanding of the underlying scientific principles. He is a regular contributor to the farming press, especially the New Zealand Dairy Exporter, in whose pages he has often entered into vigorous debate over the need to focus on pasture as the most cost-effective feed for New Zealand systems. He has also featured, discussing the Strain Trial, on the television programme 'Grass Roots Business'.

In 2002, a new fully revised version of the textbook 'Milk production from pasture' was published. The first edition was published in 1984 with Colin as the senior editor and a major contributor. It was Colin's persistence and continuous prodding of his Massey colleagues that resulted in the new edition finally being published. He even persuaded his wife, Dorothy, to spend 'hundreds of hours' proof-reading and correcting the many drafts.

Although relinquishing the position of Convenor of the Massey Dairy Farmers Conference in 1997, he remains a regular contributor to this and other conferences, such as the Ruakura Farmers Conference and the South Island Dairy Event, having presented at least 13 papers in the last five years. When Massey and Dexcel agreed to combine their conferences into Dairy3 in 2003, Colin served on the inaugural committee over seeing the transition.

Colin also works closely with Dexcel in their extension activities and is chairman of the Feed4Profit reference team. He is in great demand as a speaker at farmer field days and discussion groups and regularly hosts overseas visitors to Massey University. He obtained funding from AGMARDT to develop and present a series of workshops on dairy cattle nutrition for extension officers and farmers and has participated in courses organised by the NZ Veterinary Association Foundation for Continuing Education.

### **International activities**

Professor Holmes continues to actively forge links with dairy researchers and producers overseas. His leadership of the New Zealand Project Group for the Strain Trial has resulted in close cooperation with Teagasc in Ireland, and he has addressed a number of groups in both the Irish Republic and Northern Ireland.

Colin has been to Latin America several times recently, with visits to universities in Chile, Argentina and Brazil, as well as the Institut Nacional de Investigaciones Agrícolas, Argentina. With colleagues from Massey, he helped design and teach a Postgraduate Diploma course in Pasture Production and Utilisation, funded by the World Bank and brokered through the Cattlemens' Association of the Sierra and Amazon Regions of Ecuador (AGSO) and the Central University of Ecuador. He has also undertaken a short consultancy contract for AGSO.

### **Summation**

Professor Colin Holmes has been actively involved in New Zealand dairy education and research for almost forty years. His research output and commitment to teaching – particularly at the postgraduate level – continues unabated. He remains a forthright advocate for the cause of integrated agricultural teaching based on sound fundamental principles, despite the many recent changes in the curriculum and organisational structures within the university. Colin is well respected, not only by his university colleagues, but also by those in agricultural research and extension, and by many dairy farmers who have benefited from his wisdom and deep-felt empathy with the issues they face.

We believe these qualities establish Professor Holmes as a truly worthy recipient of the McMeekan Memorial Award.

*Ian Brookes and Hugh Blair*