

## **Lionel Batley Bull CBE BVSc DVSc 1889-1978**

Lionel Bull was born in Melbourne and educated at Melbourne High School, the Melbourne Veterinary College and the University of Melbourne, from which he graduated BVSc in 1912. In that year he was appointed first assistant to the director, laboratory of bacteriology and pathology, Adelaide Hospital, and director in 1925. From 1930-1933 he was lecturer in biology at the University of Adelaide. In his 22 years of work in Adelaide, he published 35 papers. But more than this, he had earned for himself a high reputation as a bacteriologist and comparative pathologist. In 1919, the University of Melbourne awarded him a DVSc by thesis on the nature and distribution of a granuloma of horses caused by invasion of the tissues by the larval stage of nematodes of the genus *Habronema*. His most significant work in bacteriology dated from about 1930 when he began studies on caseous lymphadenitis in sheep and showed that the mode of infection was wounding of sheep during shearing and the infection of these wounds by contaminated shearing equipment or from the environment.

In 1934, Bull was appointed Deputy Chief of the Division of Animal Health, Council for Scientific and Industrial Research, and immediately went on a tour of veterinary establishments in the UK, Europe and the USA. On returning in 1935, he succeeded JA Gilruth as Chief of the division. Bull soon became one of CSIR's most powerful figures and his authority in his own field was unquestioned. Until he retired in 1953, Bull retained the full confidence of the CSIR Executive Committee and Animal Health retained a central role in the organisation. Over the next ten years, he established sections to investigate animal breeding and genetics, animal physiology, and ecto- and endo-parasites of cattle. Soon after his appointment to CSIR, Bull became Chairman of Joint Blowfly Committee and a wide-ranging investigation of the problem was undertaken. Their conclusions largely remained the basis of the control of myiasis for many years. When Chief of the Division, he was appointed chairman of a committee organised to investigate bovine mastitis. The meticulous studies that the committee instigated provided the basis for further work on this subject. Characteristically Bull published a number of articles in *The Australian Dairy Review* between 1940 and 1945 during the progress of these studies in order to keep the industry informed.

In 1937, he conducted field trials to determine whether myxoma virus could be used to control the rabbit plague in Australia. Forced by quarantine authorities to carry out the trials in unsuitable environments, away from mosquito-breeding sites, he concluded in 1944 that the virus was ineffective. He was refused permission to conduct further experiments in well-watered parts of Australia where mosquito or other winged vectors of the virus could be expected to be present in large numbers.

From 1938 he chaired a cooperative investigation into the origins in sheep of toxæmic jaundice or 'yellows', a haemolytic jaundice with intense anaemia. The team made fundamental advances in understanding the complex interactions of minerals in the nutrition of sheep and concluded that 'yellows' resulted from three main types of chronic copper poisoning.

Bull published 88 scientific articles during his career. He retired as chief in 1954 but continued work as a senior research fellow until 1968. During these years he concentrated on hepatotoxic pyrrolizidine alkaloids affecting livestock.

Bull was appointed CBE in 1952 and received many honours and awards from his scientific colleagues: Fellow of the Australian Academy of Science 1954; Mueller medal, Australian and New Zealand Association for the Advancement of Science 1955; President 1923, Fellow 1949, and Gilruth Prize 1955, Australian Veterinary Association; ANZAAS medal 1967; Honorary LL.D University of Melbourne 1967; Foundation Fellow of the Australian College of Veterinary Scientists 1971.

Lionel Bull was essentially a scientist, with a keen, critical faculty. He was a natural leader who has

left an enduring mark on many facets of veterinary science, particularly the health and production aspects of animal industries.

#### References

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