Emeritus Professor Alan Wardrop died on 20 May 2003. He was particularly renowned for his research in elucidating the structure of the plant cell wall and its lignification.

Alan was born in Hobart, Australia on 23 July 1921. He graduated from the University of Tasmania with a B.Sc. (1942) and a M.Sc. (1944) specialising Botany and Chemistry. He studied under R.D. Preston in Leeds in 1948–1949 and received a Ph.D. He was later awarded a D.Sc. from Melbourne University.

He joined the Wood Structure Section in the CSIR (later CSIRO) Division of Forest Products in 1945 and it was here until 1963 that he carried out his most significant research, some of it with H.E. Dadswell, the Head of the Section.

Alan clearly showed the organisation and the nature of the primary and secondary cell walls and the existence of warts on the inner wall. His “barber’s pole” illustration, which showed the microfibrillar arrangement of the various layers, was widely reproduced. In recognition of the importance of his work, the Section was renamed “Wood and Fibre Structure Section”. He became Section Head in 1961 when H.E. Dadswell became Chief of the Division of Forest Products.

Wardrop used a variety of techniques in his research, and he was particularly skilled in microscopy. He used optical microscopy and then was one of the first to apply the electron microscope to the study of plant tissues.
He also followed other interests such as lignification of wood. In collaboration with D.E. Bland he showed that lignification commenced in the primary wall at the cell corners and then extends. He also showed that there was a peroxidase-controlled phase of lignification particularly in reaction wood.

Wardrop played an important role in revealing and explaining the influence of fibre structure on the properties and utilisation of wood and paper to industry and fellow researchers. This was important at that stage of the development of technology for eucalypt wood. Several overseas experts visited his laboratory and his collaborators included W. Liese, H. Harada, V. Cheadle, F.W. Addo-Ashong, and others.

Alan returned to the University of Tasmania as Professor of Botany in 1963. He became Foundation Professor of Botany at the Latrobe University in Melbourne in 1965 and played an active part in the development of that University.

Alan Wardrop received various Awards and was elected to two distinguished Academies. He received the strong trust, respect and friendship of his colleagues in CSIRO and University associates. He faced death from cancer with great courage and dignity. He will be long remembered as a scholar, gentleman and friend.

I acknowledge the assistance of Dr. H.G. Higgins in the preparation of this obituary.

W.E. Hillis