

OBITUARY KEITH HAWKE NORTHCOTE, 1919 – 2004



Dr Keith Northcote was a distinguished soil scientist, a long-time CSIRO officer, and the recipient of numerous awards died in Adelaide on 26th August, 2004, aged 85. Based in the CSIRO's Division of Soils Adelaide laboratories for 41 years his many research achievements contributed much to the knowledge of Australian soils and to the practical use of Australia's soil resources.

Born in Caulfield, Melbourne, Keith's father George died of war wounds, soon after Keith was born. He was raised by his mother and maternal grandmother, and was under the care of Legacy.

Childhood illnesses prevented Keith from attending school until he was aged seven. Later, being too old for a scholarship through Legacy to attend Melbourne University he combined his sub-intermediate and intermediate years into one at the Austral Coaching College, Melbourne and earned a grant for all of his university fees from the RSL.

Keith attended Melbourne University between 1938-41 and while there joined the University Rifles. He graduated in 1942 with a Bachelor Degree in Agricultural Science and became a research assistant to the Professor of Agriculture.

In December, 1943, he moved to Adelaide to join the CSIRO Division of Soils and was appointed Assistant Research Scientist in 1970. He retired in 1984.

In 1960, Keith developed and published a national soil classification system called "*The Factual Key for the Recognition of Australian Soils*", based solely on observed soil profile features. This system provided a generation of Australian scientists with valuable conceptual understanding of soils in terms of textural-differentiation of profiles, the relative development of horizons, soil reaction trends, subsoil colour and mottle differences. Many of the concepts formulated in Keith's 1979 4th edition of the classification system were borrowed and built upon in the development of the current Australian classification system (Ray Isbell, 1996). Aspects have also been adopted by several other overseas classification schemes.

The Factual Key also became the basis for mapping of the continent through the “Atlas of Australian Soils” (Northcote and others, 1960 to 1968), and was subsequently used to provide the first Australia-wide assessment of salinity and sodicity in soils. So much was his continued passion for soil science that at his 80th birthday party he made a speech concerning soil salinity problems in Australia, and the wonderful places Australia has to offer us rather than travelling overseas!

Keith's early work, dating back to 1949, on the horticultural potential of irrigated soils in the mid-Murray Valley provided the basis for selection of areas for wine grape production in this now very important wine-producing region. His soil mapping of the Barossa Valley underpinned the development of the area and prompted growth in the then new area of Pewsey Vale.

He conducted schools on pedology for the CSIRO in 1978 and 1979 and a similar school in Cowra in 1981 NSW. In 1980 he was responsible for tutorials for the Soil Conservation Authority of Victoria. Keith attended various soils conferences in USA, and Europe in 1956 and Russia in 1974. He was responsible for the Soils Exhibition held in 1968 for the 9th International Congress of Soil Science. He was active in a number of scientific societies notably, the Australian Institute of Agricultural Science, The Royal Society of SA, the Australian Society of Soil Science, the International Society for Soil Science, the Classification Society and the Australian and New Zealand Society for the Advancement of Science.

For his achievements, Keith was awarded a Doctorate of Agriculture Science by the University of Melbourne, the Sir Joseph Verco Medal by the Royal Society of SA, and the J.A. Prescott Medal of Soil Science by the Australian Society of Soil Science.

Keith was also passionate about orchid growing and became a judge and was a president of the South Coast Orchid Club.

Keith married Monica Agnes Hemmings in 1947. Monica, who had been suffering from pulmonary oedema for some years, died in 1986. Keith set up the Monica Northcote research fund at Flinders Medical Centre and also donated very generously to the Cystic Fibrosis Association as well as other charities.

He is survived by two sons, four grandchildren and three great-grandchildren.

Rob Fitzpatrick

(with assistance from staff in CSIRO and David Northcote)