PROF. JAMES A. PRESCOTT C.B.E. 1890 - 1987



Sources: Left *Australian Academy of Science – Biographical Memoirs of Deceased Fellows* Centre *Collaborations metal book,* (Schumann, 2001) Right James Arthur Prescott, 1945 (Healey,2002)

1. **NAME - DOB - DOD** Professor James Arthur PRESCOTT, C.B.E. 9 October 1890 Bolton, Lancashire, England – 6 February 1987 Glen Osmond, Adelaide

- **Occupation:** Agricultural chemist, soil scientist, *"Father of Soil Science in Australia"*
- **History feature location**: text and images in the metal book *Collaborations: Understanding the Australian Environment Garden of Discovery Urrbrae House Historic Precinct* on the timber round table.
- **Nearby tree/plant species:** a collection of grasses, flowers and ground cover species.

2. QUALIFICATIONS: First Class honours degree in chemistry in 1912 from Manchester University, M. Sc. From Manchester in 1919 and his D.Sc from the University in 1932.

"During 1919 Prescott submitted a thesis on his phosphate studies at Rothamsted to the University of Manchester and was awarded the degree of Master of Science" (Stephens and Quirk, 1995).

3. AREA OF RESEARCH: Soil Research

"Inaugural Waite Professor of Agricultural Chemistry, 1924 and Director of the Waite Institute 1938 - 1955

Prescott 's "*first scientific paper*, *'The estimatation of phosphates in soil extracts, was prophetic of his work on Australia's phosphate-deficient soils"* (Healey, 2002).

***"In 1924 Prescott** took up the post of Professor of Agricultural Chemistry at the newly-endowed Waite (q.v.) Research Institute of of the University of Adelaide"* (Healey, 2002). He was Director of the Waite Institute from 1938 succeedong Professor A.e.v. Richardson until his retirement in 1955 (Healey, 2002).

In 1927 the Council for scientific and Industrial Research set up its Division of Soils with Prescott as it first chief..” (Healey, 2002). He held this position until 1947 in addition to his University position.

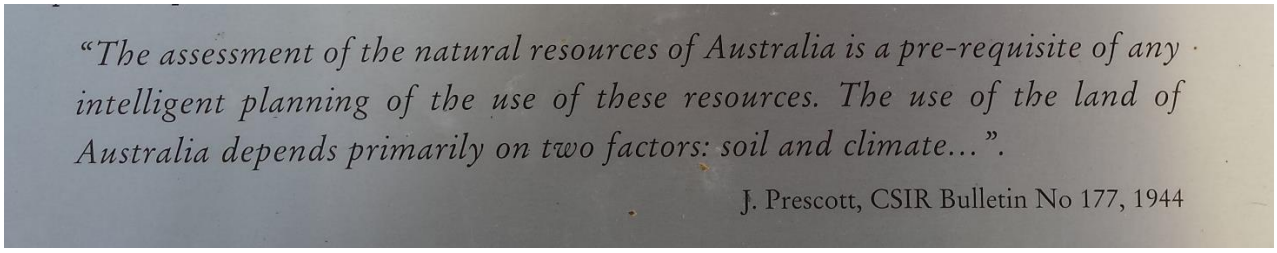
***“He began the mapping of Australian soils**, introducing the concept of ‘profiles’ of the great soil groups, first conceived by Dorguchaev in Russia. He travelled widely thorough out Australia, looking at soils and landscape, often informed by the journals of the early explorers. **He was the first to suggest aerial photograph**y as a soil survey resource and his rapport with farmers was well-known”* (Healey, 2002).

Left Source: Schumann, 2001 “Early days of the Waite Institute The interior of the chemical soils laboratory in the Coach House, 1928, **Right** Photo: Terry Langham *Prescott Adelaide -*

“The earliest worker in the study of climatology in Australia was James Prescott” (Schumann, 2001)

4. RESEARCH SPECIALITY:

“Professor Prescott’ interest centred on the relationship between climate and soil” (Schumann, 2001).



Source: Schumann, 2001

*“While Davision accepted **Prescott’s thesis that the critical factors were rainfall and evaporation** he particularly focused on the duration of dry periods that would be fatal to insects”* (Schumann, 2001).

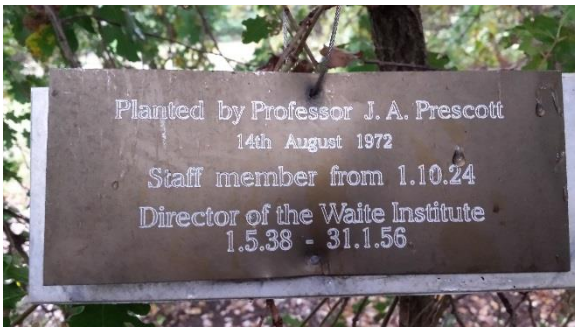
Healey, (2002) writes that *“Perhaps the most outstanding of publications is the famous C.S.R.I. Bulletin No. 52, The Soils of Australia in relation to Vegetationa and Climate (1930). In it Prescott set out the need to establish scientific lines for soil classification and mapping, to be related to land forms and land use, foreshadowing his later work on agricultural climatology. This bulletin is generally regarded as the foundation of Australian soil science*”

“At this time, knowledge of Australian soils was incomplete and unsystematic as prior to Prescott’s analysis no comprehensive soil work had been done in Australia. Until Prescott’s publication in

1931 Russian soil maps had been used to determine the agricultural potential of Australian land" (Schumann, 2001).

Prescott not long after " … James Davidson published the pioneering paper in 1936 titled, "Climate in relation to insect Ecology in Australia: Bioclimatic Zones in Australia' " Prescott evaluated the various methods of defining the desert areas of Australia. He recognised the need for land development in Australia, provided that it was based on sound principles and attempted within the limits imposed by climatic conditions" (Schumann, 2001).

5. FURTHER INFORMATION - SOME WORDS OF HUMOUR, INTERESTING FACTS, ETC:



Photos: Terry Langham **Left** Professor Prescott nameplate, #408 *Quercus pubescens* Willd. Downy Oak FAGACEAE, S. Europe, Caucasus 1972 and (on the right hand of the seat is) #407 *Quercus pubescens* Willd. Downy Oak FAGACEAE, S. Europe, Caucasus 1972

Trees #407 and #408 were planted by Professor J. A. Prescott on 14th August 1972,. The Ian and Biret seat is facing east in front of the #407 and #408 Downy Oak trees.

Prof. Prescott was a staff member from 1 October 1924 and Director of the Waite Institute 1 May 1938 – 31 January 1956

Chief Chemist and Superintendent of Field Experiments in Egypt between 1916 – 1924

"In 1912 James Prescott received the first postgraduate scholarship in agricultural science awarded by the British Government. In October that year he took up his scholarship at Rothamsted Experiment Station at Harpenden…"

In 1916 Prescott accepted an appointment as a chemist to the Sultanic Agricultural Society of Egypt.

Prescott published thirteen papers during his position of as the Chief Chemist and Superintendent of Field Experiments in Egypt between 1916 – 1924. "*Four of his publications deal specifically* the study of nitrogen and, *his work involved studies of bacteriological activity and field experiments with maize and cotton, including spacing and watering trials. He also studied base (i.e. cation) exchange and alkalinity of Egyptian soils and carried out a trial on the digestibility of bersim clover (Trifolium alexandrinum) for which an experimental group of four sheep was used "*(Stephens and Quirk, 1995).

In 1924 the Vice-Chancellor of the University of Adelaide Professor W. Mitchell, interviewed Prescott on board the R.M.S. *Orvieto* at Port Said on 9 April 1924 for a position at the Waite Institute Agricultural Research Institute. Prescott was offered and accepted the Chair of Agricultural Chemistry in June 1924. *" At the same time Dr. A.E.V. Richardson was appointed to the Chair of Agriculture in the University and Director of the new Waite Agricultural Research Institute".*

The Prescott *family left Port Said on the Moldavia on 13 August and arrived in Adelaide on 9 September 1924.* (Stephens and Quirk, 1995).

***"Prescott was active at all levels of education** – school, university, adult education and agricultural courses --- and the following quotation encapsulates his attitude to teaching.*

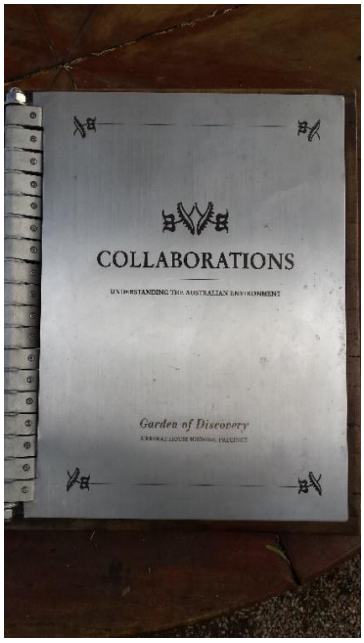
- ***'In my own work each piece of published work carries or should carry the germ of the next project**.*

- *There is, however, the inspiration that comes from incompleteness of one's knowledge. When one realizes that one is teaching students an untruth or an inadequate explanation, then it is about time something was done about it"* (Healey, 2002). ***"In 1971 the Australian Society of Soil Science established the Prescott Medal, to be awarded to senior scientists for contributions to science and climatology"*** (Healey, 2002).

6. PERSONAL INFORMATION:

Prescott came from a *blue-collar background in the cotton industry of which he was very proud of* . *Five members of his family serve as trade union secretaries* for nearly a hundred years. He began his primary school education in Lille, France, and was *fluent in French throughout his life* (Healey, 2002).

7. PHOTOS:



Photos: Terry Langham

8. REFERENCES:

Denise Schumann, 2001, *Collaborations: Understanding the Australian Environment Garden of Discovery Urrbrae House Historic Precinct* Metal Book

Healey, J. (ed) 2002 (reprinted with corrigenda) *S.A.'s Greats, The Men and women of the North Terrace Plaques,* Historical Society of South Australia Incorporated, Adelaide, p.105.

Stephens, C.G. and Quirk, J.P. 1995 *Australian Academy of Science – Biographical Memoirs of Deceased Fellows* (modified on 8 April 1998) Published by the Australian Science Archives Project on ASAO Web, [Online, accessed 17 June 2016]. URL: