Entry type: Person
Entry ID: AWE25100765

Aitken, Yvonne

(1911 - 2004)

Born	19111017, Horsham Victoria Australia
Died	20041129, Melbourne Victoria Australia
Occupation	Agricultural scientist, University lecturer

Summary

Yvonne Aitken was an agricultural scientist with the University of Melbourne. Her research centred on how plant species adapt to climate, and why day length determines the time over which crops mature. She investigated data from around the world and contributed greatly to our understanding of environmental limits on crop plant varieties, combining her research with teaching in the University’s School of Botany and Faculty of Agricultural Science.

Details

Yvonne Aitken was born on 17 October 1911 in Horsham, Victoria. The first of two daughters born to bank manager David Aitken and former schoolteacher Arabella Miller. The family moved often, but Aitken's parents valued education and ensured she was enrolled at a Convent of Mercy school in whichever town the family were residing—first in Tatura, then Camperdown and St Arnaud. Aitken was awarded a scholarship to complete her final two years of secondary school at Sacred Heart Convent of Mercy School in Ballarat before winning a Government Free Place—a state scholarship offered for specific disciplines during the Great Depression—to study Agricultural Science at the University of Melbourne in 1930.

In her second year at the University, Aitken contracted tuberculosis. She was unwell for two years and not able to return to her studies until 1934, graduating with honours in 1936. She would later express gratitude that her scholarship resumed after her illness, as she otherwise would not have been able to continue her degree. After graduation, Aitken took up a small research grant arranged by her mentor Professor Sir Samual Wadham to investigate subterranean clover at Burnley Gardens, which she supplemented with work as a demonstrator in both the School of Botany and Agricultural Science. Three years later, in 1939, she was awarded a master's degree for confirming the role of temperature in why a high proportion of clover seeds failed to germinate. Aitken continued to work with crop plants for many years and has contributed greatly to our understanding of the impact of genetic difference in how plants respond to climate factors and the length of the day, or photoperiod. She undertook extensive study of nine well-known agricultural species; three legumes, six cereals and native grasses and began a breeding program for field peas in 1938, moving from Burnley Gardens to Dookie Agricultural College. She produced a new variety of field pea that was well adapted to grow in north central Victorian wheat fields that she named 'Derrimut', after the University field station at Dookie College and collected a huge variety number of pea varieties, many of which were donated to the World Wheat Seed Collection to preserve genetic diversity for plant breeders in the future.

After nine years of managing on her small annual research grant, Aitken was appointed lecturer and joined the full-time staff of the University of Melbourne in 1945. She was made a senior lecturer in 1957 and in 1970, became the first woman to receive a Doctorate of Agricultural Science (DAgSc) in Victoria. She was promoted to reader in plant science (1975-1977) and became an honorary senior associate of the Institute of Land and Foord Resources from 1977. Aitken took leave from her role at the University of Melbourne on several occasions, with sabbaticals in 1955, 1963 and 1975. Over 30 years, she studied the impact of extremes in daylight, temperature and altitude on plant species in locations as varied as Sweden, Greece, England, Wales, Tasmania and Macquarie Island, mainland United States, Alaska and Hawaii, Mexico and Peru. International data collection was undertaken on a massive geographic scale, with travel funded mainly by Aitken herself. Ongoing research provided Aitken with material for her book, *Flowering Time, Climate and Genetics* (1974). She co-authored the textbook *Agricultural Science – an Introduction for Students and Farmers* (1962) with Professors Derek Tribe, Norman Tulloh and Jack Wilson, and contributed a chapter to Professor Abraham Halevy's *Handbook of Flowering Vol. 1* (1985).

Aitken became a resident tutor at Janet Clarke Hall in 1951 and resided there for twenty-five years. She was elected one of the college's four foundation fellows in 1966. For almost all her career, she was the only female academic staff member of the University of Melbourne Faculty of Agricultural Science. She enjoyed teaching and was particularly pleased by the opportunity to devise a one-of-a-kind course in Australia for civil engineering students to specialise in the design of machinery for agricultural purposes. Aitken taught at almost every level of the school, from the second year to postgraduate level and continued supervising PhD students even after her retirement in 1977.

Outside of her work, Aitken was interested in history, genetics and physiology. While recovering from tuberculosis, she learned spinning and weaving through the Country Women's Association and took up painting, particularly in watercolour; a skill she maintained for the rest of her life, often making pictorial records of her field work and explorations. Aitken was a great friend of Australian artist Edith Alsop (1871-1958), who bequeathed her 260 paintings which Aitken later donated to the Ian Potter Museum of Art.

Aitken was appointed a Fellow of the Australian Institute of Agricultural Science (1981-1989), a Member of the Order of Australia (AM) in 1989 for her contributions to science and teaching and a Fellow of the Royal Society of Victoria in 2001.

Published resources

Obituary
Yvonne Aitken (1911-2004), Hudson, Susan, 20 January 2005,
https://oa.anu.edu.au/obituary/aitken-yvonne-31607

Interview
Dr Yvonne Aitken, agricultural scientist, Allen, Nessy,
https://www.science.org.au/learning/general-audience/history/interviews-australian-scientists/dr-yvonne-aitken-agricultural

Article
The contribution to agricultural research of an Australian woman scientist, Allen, Nessy, 1997,
https://www.jstor.org/stable/40275133

Archival resources

University of Melbourne Archives
Papers of Yvonne Aitken

Author Details
Clare McLellan

Created 7 October 2025
Last modified