

## Edwin (Ted) Percy White BSc MSc DSc [1915-2005]



a crystalline form and its empirical formula established. These milestones in agricultural research were key steps in understanding facial eczema and provided the opportunity to understand the epidemiology of the disease and the biochemistry of the toxin.

As well as his central role in facial eczema research, Ted contributed to research in other animal disorders such as ryegrass staggers, fescue foot, and ergot tremors. During his long career in animal research he published over 80 research papers. He retired in 1980.

Ted's interests were diverse and included a passion for unusual plants and roses. He had an extensive garden at his rural property at Gordonton. It was based not on garden design but on the biology of his precious plants that included more than 200 old fashioned roses. A quiet, unassuming man, he was very well liked and respected by his many colleagues. Always willing to provide knowledge and advice to his peers and especially young scientists; he is to be regarded as one of this country's high achievers in chemistry.

Doug Wright, October 2005.

Ted White was born in Auckland, educated at Mt. Albert Grammar and at Victoria University gaining his BSc in 1936 and MSc in 1938. He worked in the Chemistry Department at Victoria until 1940 when he joined the Department of Agriculture transferring to the Ruakura Research station in Hamilton in 1944. His main area of interest was in plant chemistry. In 1951 the NZIC awarded him the ICI Prize and Medal for outstanding achievement in chemical research. By 1959 he had published 28 papers on the chemistry of legumes for which he was awarded a DSc degree by Victoria University.

Ted was best known for his isolation, purification and structural analysis of sporidesmin, the toxin causing facial eczema in sheep and cattle. Lack of identification of the toxin, even the source of this toxin - was it bacterial, fungal, or a plant metabolite - had been a major barrier to understanding the disease and to finding a solution. A *breakthrough* in facial eczema research was the outcome of Ted's experiments which had concentrated the toxic material to about 1/200,000 the weight of the dried toxic grass. This material, suggestive of a fungal origin, was subsequently confirmed as such from isolation by staff at Ruakura (later identified as *Pithomyces chartarum*) from toxic grass and growing the pathogen in culture. Shortly after this discovery, Dr. Dick Synge, a Nobel Laureate from the Rowett Research Institute in Scotland, arrived to collaborate with Ted to isolate the toxin. Combining Synge's knowledge of chromatography and Ted's experience in processing plant extracts, the toxin was isolated in