

Rex was appointed as Microbiology Lecturer at the College in 1934 and Agricultural Biologist in 1934, then put in charge of the Entomology Course in 1934. In 1935, Rex was granted two years leave of absence as an Industry Consultant in Cyprus. After a distinguished association with Roseworthy Agricultural College lasting 27 years, Rex took up an appointment as Botanist in the then State Herbarium, at the Adelaide Botanic Garden (ABG) in 1962.

As a botanist, Rex was granted three months overseas leave, this time to visit India to help overcome viticultural problems, and during this time he visited herbaria and botanic gardens, collecting plant specimens and seeds for the ABG. During his 15 years at the ABG, Rex made numerous plant collecting trips and field excursions, including to the Flinders Ranges, the Sturt Range and to Western Australia.

Rex was appointed to the new position of Superintendent of the ABG in 1965 to manage the general garden maintenance, advisory work, the seed exchange program, the trainee scheme and to liaise between the ABG and the Zoological Gardens. He also lectured in botany for the University of Adelaide, the SA and the Adult Education Branch of the Education Department, as well as being a regular contributor to the ABC series, "Our Garden."

Rex liaised with the Police Department by collecting botanical material and giving evidence based on these data in criminal trials, and in 1969 presented a paper on "Plant Ecology and its application to the Forensic Sciences" at the first Forensic Science Conference in Melbourne. This was to mark a career change for Rex.