BERNARD R. BAUM, FRSC

Harold Archie Senn
1912-1997

Harold Archie Senn was born 12 January 1912 in Caledonia, Ontario, the son of Elmer and Beatrice Senn. He attended primary and high school in Caledonia following which he enrolled in McMaster University at Hamilton, Ontario where he obtained an Honors BA in Science and Biology in 1932. He continued study at McMaster to obtain a MA degree in Botany in 1934. Harold went to the University of Virginia, Charlottesville, Virginia to study under Orland E. White at the Blandy Experiment Station. There he worked on the cytotaxonomy of the genus *Crotalaria* and received his PhD in 1937. For part of l937 and again in 1938 Harold was at the Harvard Botanical Station in Soledad, Cuba. Between visits to Cuba he worked at the Arnold Arboretum, Boston, in association with Harvard University.

In 1938 Harold joined the Botany and Plant Pathology Division, Science Service, Canada Department of Agriculture, Ottawa as an assistant to Herbert Groh. With a particular interest in cultivated plants he soon became Custodian of the Dominion Arboretum and Botanic Garden and in December 1938 published the first “Index Seminum” which listed 1499 seed lots mainly from the arboretum and garden. This was the forerunner of what is now the Plant Gene Resources of Canada. His interest in Canadian botany is well documented in his continuation of “A bibliography of Canadian Plant Geography” which was initiated by John Adams in 1928 in the Transactions of the Royal Canadian Institute.

Harold became head of the Botany Unit and through his initiative the Vascular Plant Herbarium began to expand in specimens and in usefulness as a taxonomic tool. He was instrumental in the hiring of exceptional new staff who conducted meticulous studies of cultivated plants and the flora of Canada making Agriculture Canada's Botany Division a world centre for plant systematic research. In 1959 he became the first director of the new Plant Research Institute, Canada Department of Agriculture.

Also in 1959 Harold was an organizer and vice-president of the IX International Botanical Congress which took place in Montreal, as well as chairman of the field-trips committee which set up field trips all across Canada and in the Arctic. Also in 1959 he became the first director of the new Plant Research Institute at the Central Experimental Farm. Harold left the department in 1960 to become a Professor of Botany and Director of the new Biotron facility at the University of Wisconsin at Madison, Wisconsin.

As Director of the Biotron his first responsibility was the development of a National Science Foundation controlled environment facility for plants and animals. This involved obtaining over six million dollars from the National Institute of Health and the Ford Foundation in order to build a facility with capabilities for environmental control that was unique world-wide. This included the recognition of the need for humidity, carbon dioxide and atmospheric contamination control

in the early years of controlled environment research. Mechanisms were installed to control wind speed, atmospheric pressure, electromagnetic fields and to provide high radiation levels to duplicate sunlight. The construction of this facility required the development of many new and different technologies, the proper functioning of which required extensive monitoring. Consequently Harold could often be found sleeping through the nights in the Biotron to ensure that the systems kept operating and research was not lost.

Harold continued as Director of the Biotron until his retirement from the University of Wisconsin in 1975. He was awarded Emeritus Professor status and retired to Victoria,. British Columbia. Harold Senn was an organizer and a devoted facilitator and because of his many administrative duties his botanical publications are few.

After arriving in Victoria, Harold devoted his time to his life-long love of gardening with a special interest in Rhododendrons. His garden which measured about 23 × 37 metres contained about 150 species and varieties of Rhododendrons from around the world most of which were grown from seed. Many of these were transplanted to the University of Victoria's Finnerty Gardens under the direction of fellow Rhododendron enthusiast Dr. Herman Vaartnou in July 1993 because of deterioration in health of both Harold and his wife Betty. Harold died in Victoria. British Columbia on 22 January 1997.

Harold was a fellow of the Royal Society of Canada (FRSC), elected in 1955, a Life Member of the Agriculture Institute of Canada and a member of The Ottawa Field-Naturalists' Club for 58 years. He was a significant leader in the development of biology and especially systematic botany in Canada and contributed substantially to the outstanding international reputation that Canada developed for plant systematic research.

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(Author's title given as of the time of writing)