

Obituary for Professor Robert Harza Burris

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Robert Harza Burris

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On May 11th 2010, Professor Robert H. Burris PhD passed away in Madison, Wisconsin, USA, at the age of 96. He was Professor of Biochemistry, and for decades (1960s to 1980s) the leader of the Center for Studies of Nitrogen Fixation at the University of Wisconsin-Madison. Many students and scientists had the great experience of his strong and wise leadership in different areas of nitrogen fixation research—from mechanisms of nitrogenase (which Bob loved to investigate with mass spectrometric analysis) to the biochemistry of nitrogenase regulation, the physiology of symbiotic and associative nitrogen-fixing bacteria, and even field experiments.

After graduation in chemistry at the South Dakota State University in Brookings, Robert H. Burris (Bob) achieved his MS and PhD in bacteriology at the University of Wisconsin-Madison with Prof. Perry Wilson. After a 1-year post-doctoral fellowship at Columbia University he returned to the UW-Madison as an instructor in bacteriology. In 1945, Bob joined the Department of Biochemistry and continued his research into Biological Nitrogen Fixation. His pioneering work using the reduction of acetylene as an easy routine test for nitrogen fixation activity made him known worldwide. His

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research interests were very broad—from the enzymatic reaction mechanism of nitrogenase to field tests of inoculation of crops with nitrogen-fixing bacteria. Although he was strongly engaged in the area of symbiotic nitrogen fixation with rhizobia and legumes, he also had an interest in the so-called associative nitrogen-fixing bacteria and in particular supported many studies of the biochemistry and physiology of *Azospirillum*.

Robert H. Burris was chairman of the Department of Biochemistry from 1958–1970. He published more than 300 original research papers in the area of nitrogen fixation, as well as others on photosynthesis and plant respiration. He was a member of many scientific organisations and committees, such as the National Academy of Sciences. Bob travelled throughout the world and liked to share his biochemical and agricultural expertise. He had many international students and postdoctoral fellows and he directed research in an extremely supportive and inspiring manner, setting an excellent example for all his co-workers.

Bob and his wife Katharine lived for 54 years at the edge of the UW-Madison campus at Shorewood Hills, from where he rode his bicycle almost every day to the Biochemistry building (even when the temperature was barely above zero degrees Fahrenheit!). Bob is survived by his three children Jeanne, John and Ellen and five grandchildren. After his official retirement in 1984 he remained active as a scientist until the age of 90. His great contributions to science were recognised with many national and international awards and honors, which include the National Medal of Science of the United States of America, the Wolf Award in Agriculture, the Carty Award from the National Academy of Sciences, the Kenneth A. Spencer Award for outstanding achievement in Agricultural Chemistry, the Edward W. Browning Award in Agronomy, Doctor of Science from South Dakota State University and Honored Alumnus at the University of Wisconsin.

His contribution to science will never be forgotten and his human approach to research will continue to live in the hearts of those who had the privilege to work and interact with him.