

**MEMORIAL RESOLUTION OF THE FACULTY  
OF THE UNIVERSITY OF WISCONSIN-MADISON**

**ON THE DEATH OF PROFESSOR EMERITUS MARION LEROY JACKSON**

M. L. Jackson, emeritus professor of soil science since 1986, died on December 21, 2002 in Madison, Wisconsin. He was born on November 30, 1914 in Reynolds, Nebraska and graduated valedictorian from high school in York, Nebraska. He attended the University of Nebraska-Lincoln, earning his B.S. in 1936 and graduating summa cum laude with high distinction. He received his M.S. in 1937. Upon receiving his Ph.D. in soil science from the University of Wisconsin in 1939, he was appointed post-doctoral fellow from 1939-1941, instructor from 1941-1942, and assistant professor in 1942, all at the University of Wisconsin-Madison. He was promoted to associate professor in 1946 and to full professor in 1950. In 1974 he was selected Franklin Hiram King Distinguished Professor of Soil Science.

Professor Jackson conducted research on the identification and properties of soil minerals and the role of soil minerals in environmental processes. Most of the world's soil mineralogists can trace their academic lineage to Professor Jackson. He is most widely recognized for his role in developing a widely used set of methods for soil mineral analysis by X-ray diffraction and other physical and chemical methods and for determining the weathering sequence for clay minerals. He documented these methods in two books, "Soil Chemical Analysis" and "Soil Chemical Analysis - Advanced Course". The latter has been continuously in press from 1956 to the present. Before his death, Professor Jackson and his wife donated the copyright for the latter to the Department of Soil Science and a memorial edition has been prepared.

His fundamental knowledge of soil minerals and his modern understanding of the nature of soil acidity played a key role in the department's successful efforts in the decade 1944-54 of showing that a combination of treating soils with lime to decrease the soil acidity in combination with fertilization with phosphate and potassium was needed to grow corn and alfalfa successfully in much of Wisconsin. His later research demonstrated the use of oxygen isotope ratios in quartz isolated from soils and aerosolic dust to trace global transport of aerosolic dust. The National Science Foundation, the Department of Energy, the Department of Agriculture, and corporations supported his research. His scientific contributions are documented in 241 scientific publications including 14 chapters in books on soil chemistry, soil mineralogy and other topics. Professor Jackson trained 59 Ph.D. students and 18 M.S. students who occupy numerous positions of importance in clay and soil science in industry and in academia. He also advised 37 postdoctoral scholars from countries around the world. He taught courses at the undergraduate and graduate level, including: Soil Chemical Analysis; Soil Physics; Physical Chemistry of Soils; and Soil Mineral Weathering.

Professor Jackson served as president of the Soil Science Society of America (1967-68) and president of the Clay Mineral Society (1966-67). He was also active in the American Society of Agronomy, the International Soil Science Society, the Mineralogical Society of America, the American Association for the Advancement of Science, and the Environmental Geochemistry and Health Society. He was awarded an honorary doctor of science degree in 1974 from the University of Nebraska. He was granted the Distinguished Career Award of the Soil Science Society in 1986 and the Bouyoucos Soil Science Distinguished Career Award in 1986. In 1987 Professor Jackson was elected to the National Academy of Sciences.

He gave many distinguished lectures at scientific meetings including the Pioneer in Clay Science Lecture and the George W. Brindley Lecture for the Clay Minerals Society. He addressed the Academia Sinica in Nanking and Peking, China, and the European Academy of Sciences and Medicine in West Germany. He was visiting professor at Cornell University in 1959 and distinguished visiting professor at the University of Washington-Seattle in 1973. Dr. Jackson was a fellow in the American Association for the

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Advancement of Science, the Soil Science Society, the American Society of Agronomy and the Mineralogical Society of America.

Professor Jackson married his sweetheart Chrystie Marie Bertramson in 1937. He is survived by his widow, Chrystie, and three children, Marjorie Jackson of Omaha, Nebraska, Ginny, V. L. (Bruce) Conlon of Dallas, Texas, and Stan Jackson (Beth) of Fairfax, Virginia; and daughter-in-law, Lorrie Leja Jackson, Cheboygan, Michigan; and their families. His son, Douglas M. Jackson, M.D., predeceased him.

His devotion to soil science is typified by his and Chrystie's generous contribution to the Soil Science Society of America to establish the Marion and Chrystie Jackson Soil Science Award Fund for mid-career soil chemists recognizing contributions of excellence in soil science.

MEMORIAL COMMITTEE

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