

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

ON THE DEATH OF PROFESSOR EMERITUS GERALD C. GERLOFF

Gerald C. Gerloff, emeritus professor of botany, died in Madison on November 17, 2001, at the age of 81, following a long illness. In his career at Wisconsin, Professor Gerloff early on became the country's leading authority on the mineral nutrition of aquatic algae; subsequently he also became a leader in research on the mineral nutrition of aquatic higher plants and made important contributions to our understanding of the uptake and transport of mineral elements in common crop plants.

Jerry was born on January 26, 1920, in Aurora, Nebraska, and grew up on the family farm near Aurora. In later life he was fond of reminiscing about the rigors of life in Nebraska when he was a boy, recalling his educational experiences in a one-room schoolhouse and the despair farmers felt during the Dust Bowl years of drought. He received his undergraduate degree at the University of Nebraska in 1941, then served in World War II by working at the Hercules Powder Co. He started graduate work in the soils department at the University of Wisconsin in 1945 and received his PhD in 1948. He married Mary Ellen Varney of Madison on January 22, 1949.

With his appointment as an assistant professor in the Department of Botany in 1949, Jerry undertook a major long-term study of the mineral nutrients responsible for the nuisance blooms of blue-green algae in Mendota and other nearby lakes. With Osmund Holm-Hansen he established that alone among plants, blue-green algae require cobalt, and with George Fitzgerald he showed that the green alga *Cladophora* has extremely high and unusual requirements for sulphur and boron. Many of his studies focused on the growth responses of algae to the high levels of phosphorus in the lakes.

Jerry worked particularly to define the nutrient requirements of the blue-green algal genera *Microcystis*, *Aphanizomenon* and *Gloeotrichia*, and of the most troublesome green alga in the Great Lakes, *Cladophora glomerata*. Characteristically, he was sensitive to the esthetic appeal of his research material, and felt it ironic that the plants he worked on as nuisances could be so very beautiful. Once while showing a slide of the green alga *Cladophora* at a scientific conference, he commented: "It's a shame that an organism must be considered a nuisance that is as beautiful as *Cladophora* can be when it sways gracefully back and forth in response to water movement."

In the 1960's Jerry broadened his research to include the nutrient requirements and means of control of the aquatic higher plants that also create nuisance conditions in our lakes, including especially the troublesome macrophytes *Ceratophyllum*, *Elodea*, *Potamogeton* and *Vallisneria*, and the particularly aggressive import from Europe, *Myriophyllum spicatum*. In this sphere of research he was the country's foremost authority. Also, in a long and fruitful collaboration with Warren Gabelman he worked on the fundamental genetic mechanisms controlling mineral element uptake, transport and utilization in commonly used research plants, including tomato and bean.

Throughout his career Jerry taught an always well-attended upper level course on "The Mineral Nutrition of Plants." He also initiated and taught "Plant Aspects of Lake Pollution, Restoration and Management," a course oriented particularly toward students in the Water Resources Management program. He was promoted to associate professor in 1955 and to full professor in 1959. On leave in 1956-57 he worked with Professor Perry Stout at UC-Berkeley. In 1978 he worked with Dr. David Clarkson at the Letcombe Laboratory in Oxfordshire, England.

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As the well-liked chair of the Department of Botany from 1974-1977, Jerry was respected for his careful preparation and thoughtful and fair administration. By nature he had a number of traits that made him an ideal group participant. Nonconfrontational and eager to solve differences and seek common ground, and careful to do his homework, he could always be counted on to bring a constructive attitude to meetings. Well known on the campus for his good judgment and reasonable positions, he was asked to serve on numerous committees. By the early 1980's he was serving simultaneously on 17 committees and was chairperson of 5 of them, including most importantly the Arboretum Committee. His deep love of the land, devotion to the principles of conservation, and long-continued interest in the Arboretum undoubtedly made his numerous forward-looking initiatives as chair of the Arboretum Committee his most enduring contribution to the community at large. It is appropriate in this context to mention that in 1996 Jerry and Mary Ellen Gerloff donated to the Nature Conservancy the 69 acres of land they had long owned in the Baraboo hills.

Jerry was an accomplished amateur wildlife photographer and a longtime member of the Madison Camera Club, and a co-founder and chair of the Arboretum Nature Photography group. Following his retirement in 1986 he particularly enjoyed photographing wildlife in the western United States and Canada, and, with Mary Ellen, presenting slide shows of their travels and of Wisconsin scenes to numerous groups in the Madison area.

Finally, no reminiscence about Jerry Gerloff would be complete without mentioning the special brand of humor he so often brought to meetings with his friends and colleagues. Some readers will remember with a smile the occasion in 1983 when, as chair of the Arboretum Committee, he gave retiring Arboretum Director, Katherine Bradley, a good-natured ribbing by presenting a witty parody of one of her heroic annual reports.

He is survived by his wife Mary Ellen, daughter Barbara of Madison, son Robert and daughter-in-law Lynette Lamb and their daughters Grace and Julia of Minneapolis, and his brother Dr. Robert K. Gerloff of Hamilton, Montana.

MEMORIAL COMMITTEE
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