

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

ON THE DEATH OF PROFESSOR EMERITUS LORIS H. "BUD" SCHULTZ

Professor Emeritus Loris H. "Bud" Schultz died on December 7, 2012 at age 93. He was born on February 9, 1919 at Mondovi, Wisconsin. He graduated from Mondovi High School in 1936 then began study in the College of Agriculture at the University of Wisconsin. He graduated from UW in 1941 followed by the master of science degree in dairy physiology at the University of Minnesota in 1942. From 1943 to 1946, Bud served in the U.S. Navy, Pacific Theater, as an officer aboard the destroyer USS Meade; he earned five battle stars and retired as lieutenant senior grade. He returned to UW and earned the PhD in dairy science and biochemistry in 1949. Bud joined the faculty of the animal science department at Cornell University where he was promoted to professor in 1955. In 1957, he returned to the University of Wisconsin in Madison as professor of dairy science until he retired in 1985.

Professor Schultz taught courses in dairy herd management and physiology of lactation. His courses were noted for their rigor and thoroughness and for their practical application based on sound scientific principles. Professor Schultz served as major professor for 62 graduate and post-doctoral students. Most of these students went on to careers as university professors, scientists in USDA laboratories, or key roles in industry.

The product of a Wisconsin dairy farm, Bud was continuously motivated by a desire to find solutions to problems of milk production on dairy farms. His research led to some of the most important improvements in dairy cattle health and management during mid- and late-20th century. He published 91 journal articles and more than 45 symposium papers, abstracts, and others. He was honored by the American Dairy Science Association (ADSA) with the American Feed Manufacturers Award for nutrition research (1973), West Agro-Award for research on mastitis and milk quality (1980), fellow (1997), and Award of Honor for service to ADSA (1989).

Throughout his career, Professor Schultz carried out innovative and seminal studies of rumen metabolism and how the products of rumen fermentation influenced intermediary metabolism and milk synthesis in the dairy cow. These studies contributed significantly to understanding a) the etiology, diagnosis, and treatment for ketosis, a costly metabolic disease in dairy cattle, and b) the cause of reduced milk fat synthesis, an economically important problem. His research sought the underlying nutritional and physiological causes of these problems. He investigated diet and various supplements as means for preventing milk fat depression. He developed a milk ketone test for diagnosis of ketosis and demonstrated its advantages over other methods in use at the time. He proposed treatments and studied them in depth to understand the biological mechanisms that led to their effectiveness. These diagnosis and treatment procedures remain standards in the industry 60 years after his discovery.

Professor Schultz made contributions of lasting significance in the areas of milking management, milking hygiene, and mastitis control. Conducting studies in both commercial and research herds, he examined how milking time and udder health were influenced, respectively, by milking machine design and sanitation at milking time. He developed a quantitative, lower cost screening test for mastitis and milk quality. This test was implemented on a pilot basis by Dodge County Dairy Herd Improvement in collaboration with UW-Madison dairy extension specialist Allan Bringe and UW-Extension in Dodge County. For the first time, in the mid-1970s, producers had a means of monitoring milk quality and udder health of every cow every month. The program, although using a competing test, was soon enlarged to other Wisconsin counties and, by 1980, throughout the U.S. In addition, his studies found that mastitis reduces casein content of milk and consequently the yield of cheese from that milk. This finding led dairy processors to provide an economic incentive to milk producers based on milk quality. These incentives remain in most U.S. milk markets.

(continued)

Bud's intellect and work ethic often took him to the head of his class. He was valedictorian of his high school class and won the Steenbock Award as outstanding senior in the College of Agriculture in 1941. He held key roles in ADSA including editorial board for the *Journal of Dairy Science*, president in 1983, and treasurer from 1983 to 1986. He was a founding member of the National Mastitis Council (NMC) in 1962 and served on many of its committees. He was elected NMC president in 1979 and received the council's Distinguished Service Award in 1980.

Bud served in many important service roles during his career. He chaired the writing committee for the second edition of *Current Concepts of Bovine Mastitis* published by NMC. As a member of the National Academy of Science's Committee on Animal Nutrition, he co-authored the 1978 edition of *Nutrient Requirements of Dairy Animals*. These publications were widely distributed and frequently consulted for their guidance on dairy cattle health and nutrition. At the UW, he was a member of the executive committee of the biological sciences division and served on the Faculty Senate. He chaired the planning committee for the Animal Sciences Building that opened in 1972. His *History of the UW Dairy Science Department* was published in 2009 at age 90.

Professor Schultz's considerable accomplishments were done in a quiet, modest manner. Bud was an unassuming individual of steadfast integrity. His work, in both the laboratory and classroom, was thorough and rigorous. He was held in high esteem by his former students and colleagues.

Bud was an active member of Midvale Community Luthrean Church where he served on the church council and chaired the youth and buildings and grounds committees. He worked many hours over many years as a member of the Oakwood Village buildings and grounds committee. Also, he was a member of Madison West Kiwanis Club and Middleton Couples Golf League.

Professor Schultz is survived by Myra Baumann Schultz, his wife of 63 years; brother Gary (Jean) of Georgia; three sons, Steven (Nancy) of California, and Mark (Leanne) and David (Helen) of Minnesota; and four grandchildren, Sara, Rachel, Will, and Eric Schultz.

MEMORIAL COMMITTEE

Louis E. Armentano

David K. Combs

George E. Shook, chair