



Robert E. McDowell, Jr.

June 27, 1921 – November 25, 2010

Robert E. (Bob) McDowell was born and grew up on his family's farm in what was at that time a rural area near Charlotte, North Carolina. In later years he would tell stories of a slightly older youth, Billy Graham, from a neighboring farm, who would ride by his home on a mule with a strange old hat perched on his head. It was never clear just how well acquainted they were or to what extent they may have influenced each other, but each was destined in his own way to have an international impact. Following graduation from the local high school, Bob went on to North Carolina State College, where he earned the B.S. degree in animal science in 1942. His next four years were spent in the Marine Corps, where he rose to the rank of Captain. He commanded a Marine amphibious tank company on Guadalcanal, Saipan, Iwo Jima and Okinawa and was awarded the Bronze star for valor. The unit he commanded received 5 presidential citations, two with gold leaf clusters. For a number of years after the war he continued his interest in military service by participating in the Marine Reserve, from which he retired in 1971 as a Colonel. His work in the reserve won him special recognition for meritorious service at least three times.

Following his active service during the war and brief stints as instructor in the Veterans Administration vocational agriculture program in Charlotte, North Carolina and as a USDA agent in Columbia, South Carolina, McDowell was employed from 1947-49 as dairy husbandman at the SDA Dairy Cattle Research Branch in Beltsville, MD. He took advantage of the opportunity while there to earn the MS degree in animal physiology at the University of Maryland. Thereafter he went on to earn a Ph.D. degree (1955) in animal science at the same institution and to do postdoctoral work in environmental physiology at Johns Hopkins. His subsequent research at USDA (1959-66), where he served in the Dairy Cattle Research Branch as supervisory dair husbandman and later as program director of genetic and adaptability investigations, was directed primarily at (a) the development and refinement of techniques to quantify certain physiological responses, including sweating, in cattle, (b) physiological conditions associated with the adaptation of cattle to hot climates including the

interaction of nutrition, genetics, and physical conformation and (c) the influence of crossbreeding on efficiency of milk production and reproduction. His findings suggested that many earlier concepts of genetic, anatomical and physiological factors thought important in the adaptation of cattle to hot climates were either erroneous or relatively unimportant and that nutrition and management tools might be employed to advantage.

McDowell, after spending a leave at Cornell in 1966, was recruited in 1967 to fill a position in the Department of Animal Science with emphasis on teaching and research related to international problems in animal production under tropical conditions. Thus he became one of the first of a group of “international agriculture” professors hired in the 1960s by the College of Agriculture to enhance the global dimension of its teaching, research and outreach programs. For some 20 years thereafter he was a pioneering leader and advocate of international efforts in animal science, often reminding his sometimes doubting colleagues in the plant and social sciences of the importance and role of animals in world agriculture. He collaborated with others in developing and teaching a series of courses designed to expose students, both domestic and foreign, to the problems associated with the cultivation of plants and the breeding and management of animals under tropical conditions. He was heavily involved in developing and sponsoring a multidisciplinary course (International Agriculture and Rural Development 602) which included a between-semester field trip to a tropical or subtropical area (usually Mexico or other Latin American country) to give students first-hand observation of and experience with such problems.

Bob’s research and outreach activities took him to many other countries, especially in Latin America and Africa, but also, on occasion, India, Afghanistan, Iran, Iraq, Pakistan, Saudi Arabia, Taiwan, Thailand, Sri Lanka, Philippines and others. He enjoyed his interactions with students, faculty and visitors. His expertise and personality enabled him to develop many friendships and to forge productive research alliances and linkages both in the US and abroad. At one time he was involved in such cooperative efforts with some 15 institutions in 11 countries. Recognizing that he was not an expert in all relevant disciplines, he was a master at getting other faculty involved with his graduate students to tackle problems that required their expertise and guidance. Often he would arrange for students to collect their thesis data in their home or other appropriate country. Bob’s cooperative research and demonstration programs frequently involved evaluation of performance of indigenous breeds of cattle, buffalo, goats or sheep in comparison with European breeds or crossbreds under tropical conditions. In the context of such studies, modern dairy record keeping systems and other management tools were introduced in several countries and assistance was given in data analysis and interpretation. Other studies evaluated the constraints of traditional farming systems.

Throughout his career, Bob pursued his work with the fervor and self-discipline he had no doubt perfected as a Marine officer. His rigorous enforcement of discipline and attention to detail, including schedules during field trips, were not at the time always appreciated by sleepy students and occasionally resulted in humorous comments on their part. Their respect for Bob, who was truly a unique individual and who could easily roll

with the punches, however, was strong and unwavering. He was always an early riser, usually at his desk in the morning before anyone else. Research papers and committee reports were always promptly submitted. He was a good academic citizen, willingly taking his share of committee assignments and volunteer responsibilities. McDowell was the author of a widely used book, "Improvement of Livestock in Warm Climates," 11 chapters in books, and numerous refereed and technical papers, bulletins and other publications. He was the recipient of the USDA Superior Service award (1962), the American Society of Animal Science International Animal Agriculture award (1979), was elected a Fellow of the League for International Food Education (1984) and received the Puerto Rico Agriculture Service award (1986).

Bob held honorary/courtesy staff appointments in five or more universities in foreign countries where he was doing collaborative research and participated in numerous national and international committee assignments related to tropical agriculture. He was frequently called upon for special assignments or consultancies with organizations such as World Bank, FAO, US AID, Peace Corps, USDA and Rockefeller Foundation. From 1979-85 he served as chairman of the board of trustees of the International Livestock Centre for Africa (ILCA).

Following his retirement from Cornell in 1986, as professor emeritus, Bob and his wife moved to Raleigh, North Carolina, where he became affiliated once more with his alma mater, North Carolina State University and, for a number of years, assisted with their international agriculture program. He was predeceased by his youngest daughter, Jane, in 1963 and by his wife, Dorothy Gill in 1991. He is survived by two daughters, Jean Burke of Tarrytown, NY and Ann Hickey of Asheville, NC, by his son, Robert G. McDowell of Portsmouth, NH and by a sister, Jane Bullock of Raleigh, NC.

J. Murray Elliot, Chairperson; Douglas E. Hogue, H. David Thurston