Kavous Keshavarz, professor of Poultry Nutrition Emeritus in the Department of Animal Science at Cornell University, died January 7, 2021 in Atlanta, Georgia. He was 82.

Born in Iran in October 28, 1938, he received his bachelor’s degree in agriculture from Pahlavi University in Shiraz, Iran in 1961. He received a master’s from Reading University in the U.K. in 1965, and a doctorate in poultry nutrition from the University of Georgia, U.S.A. in 1971. Throughout his graduate school years and until 1978, he returned to Iran to teach animal science at Shiraz University (formerly Pahlavi University), where he rose to the rank of associate professor and dean of students. He loved sharing the cutting-edge information he was learning in the U.S. with his eager students in Iran. In 1978, he brought his young family to Georgia for what was to be a 1-year sabbatical. The timing was auspicious, for that year marked a turning point in the Iranian Revolution and made return to Iran so dangerous that it was impossible. As an exile from his birth land, he sought and received political asylum in the U.S. and began his life anew. Although those early years were trying, he and his family worked to assimilate to the culture, customs, and language of a new home, while trying to maintain what ties they could with family and loved ones in Iran. From 1978 to 1981, he was a postdoctoral researcher at the University of Georgia, where he conducted research on poultry nutrition, and studied the effects of temperature fluctuations on heat production and energy efficiency in broiler chickens.

Dr. Keshavarz joined the Department of Poultry and Avian Science of Cornell as an assistant professor with responsibilities in applied nutrition research and extension. He was promoted to associate professor in 1988. When the Department was disbanded in 1991, he relocated to the Department of Animal Science where his research efforts continued and his extension responsibilities, because he was the sole remaining person from an original group of four people, had broadened well beyond the area of nutrition. He was promoted to full professor in 1998.

His research was on maximizing egg production and egg quality of laying hens while minimizing the use of costly ingredients such as phosphorus and protein. His studies on minerals, eggshell...
quality, and acid-base balance had helped define the requirements of laying hens for phosphorus and illustrate the impact that more acidogenic minerals could have on egg production and eggshell strength. The results of his research on mon- and di-calcium phosphate in which the monocalcium phosphate was found to be depressing of egg production for reasons that appeared to relate to acid-base balance was particularly illuminating in this regard. Dr. Keshavarz’s studies on calcium, phosphorus and protein/amino acids for growing pullets and laying hens contributed substantially to our knowledge of poultry nutrition, which was reflected in the numerous citations of his publications in the 1994 NRC Nutrient Requirements of Poultry.

He had also explored a possibility that nutrient requirements of laying hens might vary during the day because the secretion of albumen and eggshell occurred, for the most part, at different times of the day. He carried out experiments, with tremendous personal effort, in which nutrients were provided at different dietary concentrations during the day. He attempted to reduce the wastage of nutrients by providing selected nutrients at varying dietary levels that would match varying physiological needs. These unique studies did not yield the intended result, but that did provide a large amount of information about the effect of within-day feeding regimens on various aspects of layer performance.

Minimizing dietary excesses of nutrients that were relevant to environmental pollution had been a continuing interest to Dr. Keshavarz. He had investigated amino acid supplementation of low protein diets, lowering dietary phosphorus levels, using enzyme supplements to improve phosphorus bioavailability, and variations in nutrient needs within the daily cycle of egg formation. His research productivity and contribution were impressive when his appointment was 70% extension and 25% research (5% instruction). Up to 1999, three years before his retirement, he had published in the U.S. (excluding his publications in Iran) 39 referred journal papers, 177 extension reports, fact sheets, and bulletins, and 75 other articles.

Dr. Keshavarz was a key extension leader for the New York State and Northeast poultry industry. Among his many activities, he interacted with feed companies, nutrition consultants, and producers, and helped formulate poultry feed and solve production problems faced by New York poultry producers. One example was that he performed research on velvet leaf that represented a response to a specific problem of a New York egg producer. His program provided a model for integrating applied research and extension to address important stakeholder issues. He chaired the Cornell Poultry Conference from 1993 to 2002 and served on many poultry-related regional and national committees. Up to 1999, he gave 132 oral presentations: 57 at scientific meetings and 75 at extension meetings. He was an excellent speaker in front of his audiences, and answered questions with enthusiasm and in such a way that promoted an understanding of many concepts in poultry science and management. He was a poultry scientist that had a working knowledge of both basic and applied poultry nutrition and dedicated his professional endeavor to researching important problems and conveying the findings through his publications, presentations, and interactions to the poultry industry. He was a member of the American Institute of Nutrition (now American Society for Nutrition), the Poultry Science Association, and Editorial Boards of Poultry Science Journal and Journal of Applied Poultry Research.

Dr. Keshavarz was well recognized and respected by his colleagues. Dr. Richard E. Austic, chair
of former Department Poultry and Avian Science at Cornell, commented: “Dr. Keshavarz was a person of inexhaustible energy and enthusiasm for research and poultry extension. He worked long hours to carry out an active extension program and to create time for his research activities”. Another former colleague, Professor Emeritus Gerald F. Combs, Jr. commented: “I (and I believe most others) knew Kavous to be eminently likeable, enthusiastic, and knowledgeable re the nutrition and management of both broilers and laying hens. He was grounded in the practical aspects of the feed and physical management of poultry and, was highly regarded by the New York poultry industry.”

“Professor Keshavarz was widely respected both within the Department of Animal Science and more broadly in the poultry industry for his productive applied research and extension program related to poultry nutrition and management,” said Tom Overton, chair and professor in the Department of Animal Science, in the College of Agriculture and Life Sciences.

“He devoted himself to his roles and worked extremely hard in his office and laboratory,” said Xingen Lei, professor of animal science, whose office was next door to Keshavarz’s. “He performed numerous large poultry nutrition experiments with his technician at the Cornell Poultry Teaching and Research Farm and he was actively engaged with the poultry producers and feed companies.”

Dr. Keshavarz retired in 2002 and moved with his wife and daughters to Westchester, New York. Retirement afforded him an opportunity to partake in activities he had long put off in the service of his professional responsibilities. He was a prolific reader of all things related to his field and beyond, taking a particular interest in the political upheaval in the Middle East that had so dramatically changed the course of his life. He became a passionate supporter of the liberties afforded in this country, a marked contrast to the near-totalitarian regime that had taken over Iran. A moment of great personal pride to him was when he became a naturalized citizen of the United States. In the last few years of his life, he returned to Athens, where he had first established himself professionally, and which had always held a special place in his heart.

He survived by his ex-wife, Tannaz Keshavarz, daughters Sandra Kesh (vice president and practicing infectious disease physician at Westmed Medical Group in Westchester County, New York), and Sally Kesh (a corporate litigator who lives in Westchester with her husband Darren), and two grandchildren Luke and Layla Kesh-Heil.

Written by Xingen Lei, Richard E. Austic, and Gerald Combs, Jr.