

Albert M. Pearson, 1916–1998: A brief biography

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Albert M. Pearson was a writer *par excellence* and the consummate professional. Al was the most prolific writer that I have known. He had nearly 1,000 publications, some of which appeared even after his retirement in 1986 and until shortly before his death. He effectively communicated research findings not only to the scien-

tific community but also to laypersons in the livestock and meat industry. An animal/food scientist, Al was foremost a teacher, an extremely productive researcher, mentor to numerous graduate students, a real team player among colleagues, a devoted family man, and a sheep producer. His work ethic was boundless and his enthusiasm contagious, and he had the respect of all he worked with and for. Dr. Pearson's outstanding professional career established him as the world's preeminent meat scientist.

Albert Marchant Pearson was born September 3, 1916, in Oakley, Summit County, Utah. He was raised on a general livestock farm and was active in 4-H with his sheep projects. He developed an excellent registered Hampshire sheep flock and consigned rams to the National Sale for a number of years. It was here that Al acquired his work habits while sharing in the labors of running the family farm. Al graduated second in his class from South Summit High School, where he served as president of his sophomore and senior classes. For the next two years he elected to help his father operate the family farm. He then enrolled at Utah State University with a major in Animal Husbandry and was a member of the livestock judging team. He graduated in 1940 and began his graduate studies at Iowa State College, earning his M.S. degree in 1941. Al again returned to the family farm, where he worked until he enlisted in the U.S. Marines in 1942. He was commissioned as a second lieutenant and served in the South Pacific on active duty on several islands. As World War II was about to end, his battalion was training for landing in Japan. They were the first occupation forces to land at Nagasaki after the atomic bomb was dropped. After his discharge from the Marines in October 1945, Al again returned to the family farm.

In the fall of 1946, Pearson began studies toward his Ph.D. degree at Cornell University. He received his doctorate from Cornell in June 1949. While at Cornell University, he met and married Rose Harriet Eilenberger. Al joined the faculty at the University of Florida in 1949, serving as assistant and associate professor of animal husbandry. In addition to teaching and research responsibilities in meat science, Al also coached the livestock judging team. In 1954, the Pearson family moved to East Lansing because Al had joined the Department of Animal Husbandry at Michigan State University (MSU) in the meat science program. Again, while having primary responsibilities in teaching and research in meats, he coached the livestock judging

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team for one year. Not forgetting his boyhood background, Al maintained a small sheep flock during the 34 years he was at Michigan State. When the Department of Food Science was established at Michigan State in 1960, Dr. Pearson became a professor in the new department. In the early 1970s, the department was merged with the nutritionists from the College of Human Ecology and became the Department of Food Science and Human Nutrition. During his more than three decades at MSU, Al Pearson developed one of the most outstanding and productive programs in meat science. He and his program became globally recognized and highly esteemed.

Dr. Albert M. Pearson always had a keen interest in methods of measuring fatness and leanness in live animals and carcasses. His early research on the effects of nutritional and physiological treatments on compositional changes led to the development of an outstanding program on methods of measuring body composition. The impressive series of publications on the relationships of potassium-40 to the composition of meat cuts and whole bodies of sheep and pigs is a classic study on composition, yet he cautiously pointed out the usefulness and limitations of these methods. In cooperation with Dr. Paul Reineke of the Department of Physiology and several graduate students, he developed an air displacement system for arriving at density, and thereby composition, of live animals. These renowned studies aroused interest of and adoption by animal scientists and also by the medical profession for determining human body composition. Other published research on measurement of composition included studies on underwater weighing to obtain density of meat cuts and human subjects, use of creatinine coefficient, ultrasonics, and a comparison of the live probe and lean meter for determining backfat thickness and carcass cutout, measurements on live cattle and their carcasses for predicting wholesale cut yields, and the use of bone weights as an index of carcass muscling. Dr. Pearson also was a pioneer in meat flavor research. He and his associates demonstrated that the major flavor components in meat were water-extractable; this finding has been widely used by flavor investigators since. Al's research group also studied "boar/sex odor" in pork. They observed that the odor was localized in the unsaponifiable fraction of fat tissues and was not detectable until a temperature of approximately 100°C was reached. Their studies showed that this odor was not limited to boars but also occurred in all sex groups, albeit at lower incidence. These profound findings led the Federal Meat Inspection Division to liberalize the regulations on the use of meat from boars.

Dr. Pearson and his associates studied the influence of various nutritional treatments on carcass quality, the relationship of marbling to pork tenderness, and the relationship of the naturally occurring catheptic enzyme to meat tenderness in dairy and beef steers. They also were among the first to study the effect of carcass fatness on cold-induced shortening and tender-

ness of beef. Another of Al's major research contributions was the study of factors affecting lipid oxidation and meat color. He and his colleagues found that feeding vitamin E to pigs reduced the severity of lipid oxidation and warmed-over flavor in pork and enhanced desirable meat color retention. Al also was an early investigator of nitrosamine formation in cured meat products. These pioneering studies by Dr. Pearson provided the impetus for numerous studies by others to further advance the scientific body of knowledge in these areas and they provided the basis for either adoption or modification of a number of industry practices.

These studies directed by Dr. Al Pearson provided the research training of approximately 100 graduate students and culminated in 259 peer-reviewed publications in refereed scientific journals. He also published 241 abstracts and over 100 papers in symposia proceedings and in experiment station publications. Al contributed 15 chapters to books and is the co-author of two books, *Processed Meats* (Editions 1 and 2) and *Meat and Muscle Biochemistry*. He also served as co-editor of a series of 11 editions of *Advances in Meat Research*. In this series, co-edited with Dr. Thayne Dutson, each multi-authored volume presents a specific topic in detail. Al's unique ability to communicate the scientific literature to the layperson is evidenced by his monthly publication of "What's New in Research" in the *National Provisioner*, the major magazine of the meat industry. Al spent countless hours each month reading the current scientific literature and interpreting it for the layperson. Over some 30 years, he contributed to approximately 360 issues of the magazine, and in each issue he summarized three to five papers of pertinent scientific literature for industry personnel.

Dr. Pearson's research publications have been and still are frequently cited by others. The Science Citation Index, which lists frequency of publication citations, has a large listing of Al's papers. In some issues, Dr. Pearson's citations covered nearly one page, many more than most authors listed in the index. In addition, his expertise in meat science, muscle biology, food chemistry, and nutrition is evidenced by his participation in a number of study teams, several Fulbright-Hayes Fellowships, and many national and international committee assignments. Outstanding examples are the following: U.S. delegate to the 1st International Congress of Food Science and Technology, England, 1962; representative of the meat industry to U.S. Feed and Grain Show, London, 1963; member of Meat Products Committee, National Research Council, National Academy of Science, 1969 to 1971; representative of American Society of Animal Science on "Elanco Focus on Quality Tour" of the pork industry to England and Denmark, 1970; Fulbright-Hayes Research Fellow to Meat Research Institute of New Zealand, 1971 to 1972; Fulbright-Hayes Travel Grant to study the meat industry in Australia and to represent the U.S. at a special meat conference in Brisbane (Cannon Hill), 1972; U.S. representative to 2nd World Meat Congress, Buenos Aires,

Argentina, 1976; participant in a symposium on thermal processing of foods, Oslo, Norway, 1976; U.S. representative to European Meat Research Workers Conference, Malmo, Sweden, 1976; member of Study Team for Food Science & Technology Graduate Education in Brazil under the PEAS Project, 1976; U.S. representative to Symposium for Permanent Office for OPIC in Johannesburg, South Africa, 1977; and representative to Annual International Congress of Meat Science and Technology nearly every year from 1972 until 1996. He also served as a member of the CODOT Executive Committee for International Development for a number of years.

The outstanding accomplishments of Dr. Al Pearson have been duly recognized by his peers in the numerous awards he received. Most notable among them are The Meat Research Award, American Society of Animal Science, 1964; Signal Service Award, American Meat Science Association, 1964; Meat Research Award, American Meat Science Association, 1965; Honorary Fellow, Meat Industry Research Institute of New Zealand, 1972; Fellow, Institute of Food Technology, 1972; Animal Agriculture Award, American Meat Institute, 1972; Morrison Award, American Society of Animal Science, 1973; R. C. Pollock Award, American Meat Science Association, 1979; Distinguished Professor Award, Michigan State University, 1984; and Sigma Xi Senior Scientist Award, The Society of Sigma Xi, 1984.

Dr. Pearson was an active member of the American Society of Animal Science, American Meat Science Association, American Institute of Nutrition, New Zealand Society of Animal Production, Institute of Food Technologists, and American Chemical Society—Agricultural and Food Chemists. Al ably served as secretary and president of the American Society of Animal Science as well as chairman of the Reciprocal Meats Conference of the American Meat Science Association. Al also was a member of several honorary societies, including Alpha Zeta, Phi Kappa Phi, Gamma Sigma Delta, and Sigma Xi. He served on the editorial board of a number of scientific journals, including the *Journal*

of Animal Science, and reviewed hundreds of manuscripts. Al also served each of his professional organizations on numerous other committees. Additionally, his counsel and judgment were highly respected by colleagues, and as a result he served on many committees in the department, college, and university at MSU. To acknowledge his esteemed professional career, the newly remodeled reference room (library) serving the animal science and food science and nutrition departments at MSU was recently named the Albert M. Pearson Reference Room.

Dr. Pearson taught a course in processed meat products for over 20 years to hundreds of graduate and undergraduate students. He also taught two graduate-level courses, one on muscle biochemistry and a course on research techniques. In the latter course he had students adapt new methodologies to meat research studies. The enduring legacy of Dr. Al Pearson's remarkable career is his many graduate students and their fine accomplishments. Through his very effective teaching and guidance, Al's graduate students have been extremely successful in their own careers. His students have been or are presidents or vice presidents of food companies and senior scientists and directors of research for many food companies or government laboratories in the United States, as well as in many other countries. Still others have successful careers as university faculty, department heads, and college deans.

It was indeed an honor to have known and worked with Dr. Albert M. Pearson for nearly 30 years. He had a profound influence on my professional career, and I am deeply indebted to him. His distinguished career truly has been one to emulate.

Dr. Albert M. Pearson died peacefully on August 11, 1998, at Salem, Oregon, in the home the Pearsons built after leaving Michigan State. He is survived by his wife of nearly 52 years, Harriet, and their five children, Richard, Carol, Marion, Donna, and David, and their families. At the time of his death, he also was survived by 17 grandchildren, three great-grandchildren, two sisters, and one brother.