WISCONSIN MEAT INDUSTRY HALL OF FAME

2007

B. Bruce Marsh
B. Bruce Marsh

Bruce Marsh was born in Petone, New Zealand in 1926. After attending public schools in Petone and Lower Hutt, he graduated with a Bachelor of Science degree in chemistry from Victoria College, University of New Zealand at Wellington, in 1946 and a Master of Science degree with honors in 1947. He joined the Fats Research Laboratory in Wellington, but soon thereafter moved to the Low Temperature Research Station in Cambridge, England where he pursued the PhD degree under the direction of Dr. Kenneth Bailey.

He studied the biochemistry and bacteriology of whale muscle, and how it could be better transformed into human food, while on a whaling ship in the Antarctic. One of his observations that he pursued after return to Cambridge resulted in the discovery (in collaboration with his colleague J. R. Bendall) of the "Relaxing Factor". This component, which occurs in the muscles of all mammalian species, is now known as the sarcoplasmic reticulum. It controls the muscle's state of contraction and relaxation in life, the onset of rigor mortis in death, and the potent toughening processes of thaw rigor and cold shortening in the early-postmortem period. This carefully planned, accurately observed and completely documented research first established Bruce as an international meat scientist of distinction.

After receiving the Ph.D. degree in biochemistry from the University of Cambridge in 1951, he returned to the New Zealand Meat Industry Research Institute, studying rigor mortis, thaw rigor, and cold shortening and their influence on tenderness in lamb and beef. Because of the introduction of faster and earlier-postmortem cooling, New Zealand lamb acquired an excessive toughness that greatly influenced the profitability of New Zealand's export lamb industry. His studies of early-postmortem carcass electrical stimulation, initiated in New Zealand and continued later in Wisconsin, led to the widespread introduction of this process to both beef and lamb throughout the international meat industry.

In 1969 Bruce served as the keynote speaker at the second symposium "Biochemistry of Muscle as a Food" at the University of Wisconsin-Madison, and stayed temporarily as a visiting scientist. In 1971 he permanently returned to Wisconsin as the Director of the Meat Science and Muscle Biology Laboratory at the University of Wisconsin-Madison, where he spent the remainder of his professional career studying, writing and teaching about the biochemical and eating-quality properties of muscle during its transformation to meat, and how these properties can be modified by appropriate early-postmortem treatment.

These scientific contributions were of an unquestionably high standard, and have served as significant bench marks of thoroughness and importance to our knowledge of the use of muscle as food. Bruce's research has clearly demonstrated an expertise as well as an extended effort over time in meat science and muscle biology, establishing him as one of the premier international meat scientists of the twentieth century. His research has directly provided knowledge of the fundamental characteristics of muscle and how muscle is transformed into meat, resulting in the direct improvement of meat quality as produced in Wisconsin and throughout the world.

Bruce Marsh has contributed significantly to the educational programs at the University of Wisconsin. In addition to providing lectures to several undergraduate and graduate courses, he has served as advisor to a number of highly successful graduate students. As a result of his
presence, many Wisconsin undergraduates, graduate students, post doctorate fellows, and visiting scientists at the University of Wisconsin as well as many other academic and industry personnel throughout the nation and internationally, have greatly profited from his knowledge, research accomplishments, teaching and counsel.

During his retirement, Bruce continues to provide annual lectures to University of Wisconsin Meat Science classes. He is the recipient of numerous awards internationally and has been twice honored by the American Meat Science Association. He has become extremely interested in computer based genealogy and has traced his lineage to previously uncharted lengths. He resides in Madison, Wisconsin with his wife Doris, and they are the parents of two sons, Richard and David (both now residing in California, and both graduates of the University of Wisconsin), and grandparents of Sam, an undergraduate student in biology at the University of California, San Diego.

Bruce March has been a pillar of international meat science. His record of accomplishment is exemplary. Through his efforts, the meat industry has been extremely well served. For this we recognize him today.