Dr. H. Duane Norman

Dr. H. Duane Norman, Fulton, Md., has been named the recipient of the Award for Meritorious Service presented by the American Jersey Cattle Association (AJCA) and National All-Jersey Inc. (NAJ).

This award is given annually to a living individual who, in the joint opinion of the Boards of Directors of the national Jersey organizations, *has made a notable contribution to the advancement of the Jersey breed and the livelihood of Jersey owners in the United States through research, education, development, marketing, or other significant activities of the allied dairy industry.*

The presentation will be made on June 29, 2012, at the Jersey Breeders' Banquet during the AJCA-NAJ Annual Meetings in North Conway, N.H.

Dr. Norman's distinguished career as a geneticist in the dairy industry spans more than four decades and his roots in the Jersey business have made him a friend to the Jersey breed. He has pioneered many of the genetic tools that have advanced the dairy industry domestically and made it a shining example for the rest of the world.

Dr. Norman has been an animal research geneticist with USDA since 1970 and led the team at the Animal Improvement Programs Laboratory (AIPL) for 23 years beginning in 1988. He officially retired from the laboratory in December 2011 but continues to oversee research projects on a part-time basis.

Under his leadership, the charge of AIPL moved from a simple evaluation of yield traits to complex evaluations of yield, fitness and health traits, including conformation, longevity, fertility, calving ease, stillbirth and mastitis resistance. He generated the first genetic-economic indexes to rank bulls and cows and later extended these indexes to include type. More recently, he was at the helm when AIPL undertook the incorporation of genotyping information in genetic evaluations.

In a letter supporting his nomination for the award, Maurice E. Core, former executive secretary for the Jersey organizations, expressed his opinion of Dr. Norman as being one of the two men who exerted the greatest influence on Jersey breed progress over the past 45 years. The other person of influence was the late J.F. Cavanaugh.

Dr. Norman's impact on the Jersey breed through his own research, or research performed under his direction, has led to genetic improvements for milk yield of 1.5% annually over the past 25 years. In 1985, standardized production for the Jersey breed stood at 12,685 lbs. milk and 601 lbs. fat. Last year, breed average was 18,633 lbs. milk, 889 lbs. fat and 676 lbs. protein. Nearly 60% of this gain can be attributed to genetics.

Dr. Norman's appreciation for dairy cattle—and Jerseys in particular—was established early in life as he grew up on a Registered Jersey farm in Liberty, Pa., that is now known as Normadell Farms and operated by his brothers, Ernest and David, and their families. As a youngster, Dr. Norman was active in 4-H and took a special interest in dairy judging. His first homebred cow, Beacons Aster Jessie, was named Grand Champion of the Pennsylvania All-American Junior Jersey Show in 1959, 1961 and 1962.

He earned his bachelor's and master's degrees from Pennsylvania State University and then obtained a Ph.D. in dairy cattle breeding from Cornell University. He joined the staff at USDA in Beltsville, Md., in 1970.

Among his first career achievements was the formulation of the Modified Contemporary Comparison (MCC) in 1971. MCC was used to calculate Predicted Differences and Cow Indexes for milk and fat yields until 1989, when it was replaced with the Animal Model. MCC was a huge step in advancing genetic merit as it provided a more accurate weighting of data within and across herds, adjusted for genetic merit of herdmates, included multiple lactations per cow and, for the first time, incorporated ancestor information into bull proofs. MCC allowed for the comparison of bulls across time, regardless of where or when they were progeny tested, and improved the accuracy of sire evaluations.

Dr. Norman foresaw the importance of incorporating protein in genetic evaluations long before the practice became an industry standard. He initiated a sire evaluation procedure that included protein and solids-not-fats in 1977, even though few cows were being tested and little milk was being paid on the basis of components at that time. He believed that sire evaluations based even on limited data would boost interest in protein. The ability to include protein in the breeding program was one of several stimuli that sparked the revolution in multiple component pricing.

Dr. Norman worked with his AIPL colleague Dr. Bennett Cassell to develop a Production Type Index (the predecessor of Jersey Performance Index) that combined type evaluations and production evaluations into a single, multi-trait index. In another project, he used Jersey data to complete the first comprehensive studies to determine the effect of individual appraisal traits on herd life and lifetime profitability. The information was used in the development of the AJCA mating program that is now JerseyMate, to recommend matings that maximize herd income.

Dr. Norman initiated the Jersey Comparison Project to exchange Jersey semen and cooperatively progeny test young bulls in the United States and Denmark. The exchange provided early links between

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the two populations and made it possible to compare genetics and slow increases in inbreeding. Since U.S. bulls ranked high for protein, global demand for semen increased dramatically from 45,000 units in 1985 to 1.1 million units in 2011.

Through his involvement with organizations like the American Dairy Science Association (ADSA), the Council on Dairy Cattle Breeding, the National Association of Animal Breeders (NAAB), the National Dairy Herd Improvement Association (NDHIA) and the Purebred Dairy Cattle Association, Dr. Norman has been a unifying force for the dairy industry. His steadfast focus has always been on improving traits that are economically important to dairy producers and increasing the accuracy of genetic evaluations.

He has co-authored 500 publications, including 150 peer-reviewed manuscripts, made more than 300 presentations at international, national, state, district and university meetings and served on 70 industry committees.

Dr. Norman has also found time for community service over the years. He sat on the board of National Dairy Shrine (NDS) for nine years and presided over the organization in 2003. He also served the Maryland Jersey Cattle Club as president, secretary and board member and was the Pennsylvania Jersey Cattle Association representative on the Penn State Agricultural Council for 12 years. Dr. Norman was a strong advocate for youth programs, volunteering as a 4-H leader for 25 years and coaching county and state dairy bowl teams for many years.

He helped the Jersey breed set research priorities through his service on the AJCA Research Advisory Committee, which spans more than three decades. The Norman family contributed to the AJCC Research Foundation at the Patron level in 1990 and Dr. Norman and his wife, Rosyln, continue to contribute to the cause by donating items to the foundation's annual fundraising auction.

Among the most recognized members of the dairy community, Dr. Norman is just one of two individuals to receive both the Distinguished Service Award and the Award for Meritorious Service from the national Jersey organizations. He also received Research Award from NAAB in 1993, the Outstanding Service Award from NDHIA in 1999 and the Distinguished Service Award from the American Registry of Professional Animal Scientists in 2009. ADSA has honored him with a number of laurels: the J. L. Lush Award in 1995, the Fellow Award in 2001, the Land O'Lakes Research Award in 2007 and the Distinguished Service Award in 2011. He also received a Decoration of Order of Merit from the Polish Ministry of Agriculture in 1986 and was named Guest of Honor by NDS in 2007 and Industry Person of the Year by World Dairy Expo in 2011.

His laboratory was presented with the Government Technology Leadership Award from *Government Executive* magazine and a Hammer Award from former Vice President Al Gore. The team also earned the Distinguished Service Unit Award from USDA and the Superior Effort Technology Transfer Award from ARS.

In his closing statement, Core wrote, "Dr. Norman is a most worthy candidate for the Award for Meritorious Service and I believe this is the year to do it following 42 years of valuable service to our industry."