Curtis Van Tassell

Curt Van Tassell is a research geneticist at the Animal Genomics and Improvement Laboratory, Agricultural Research Service, US Department of Agriculture, in Beltsville, Maryland. Van Tassell grew up on a dairy farm in Millbrook, New York. He graduated from Cornell University in 1986 with a BS in animal science. He obtained an MS in animal breeding and genetics from Iowa State University. He returned to Cornell and received his PhD in animal breeding and genetics in 1994. His career with the Agricultural Research Service started as a postdoctoral research associate with the US Meat Animal Research Center, where he developed a flexible parameter estimation program called Multiple Trait Gibbs Sampler of Animal Models.

In 1997, he was appointed to his current position, with a joint appointment between the genomics and genetic evaluation groups in Beltsville. In that position, he continued quantitative genetics research, including the development of the revised US national calving difficulty genetic evaluation, but has focused more of his efforts on genomics-based research. As part of the bovine genome project, Van Tassell led the bovine HapMap efforts that included identifying breeds and specific animals selected for SNP discovery, coordinating funding, and managing a large international consortium. He also contributed to the development of the water buffalo, turkey, and Zebu cattle genome assemblies. Currently, Van Tassell is codirecting a goat genome consortium that is using cutting-edge technologies to increase assembly quality while drastically reducing costs.

Van Tassell led a consortium that developed a high-density genotyping assay for use in cattle. He developed algorithms and software for optimal spacing and selection of SNP for genotyping assays. The first use of this tool was the development of the BovineSNP50 Genotyping chip, which was developed with markers from over 54,000 locations distributed across the bovine genome. Additional bovine chips of varying SNP density were designed including the Bovine3K with 3,000 SNP and the BovineHD with 777,000 SNP. The BovineSNP50 chip has been used to genotype over 2 million cattle worldwide. Van Tassell led USDA efforts to use this tool for prediction of genetic merit in dairy cattle. He has also designed DNA chips for the pig, turkey, and water buffalo. Finally, Van Tassell has been instrumental in communicating the importance of integrating quantitative genetics and genomics research to the dairy and beef cattle industries and fostering their support for ongoing research.

Van Tassell's contributions to research and the dairy industry are documented by over 200 publications and several prestigious awards: ARS's Herbert L. Rothbart Outstanding Early Career Research Scientist (2003), Presidential Early Career Award for Scientists and Engineers (2003), ADSA's Cargill Animal Nutrition Young Scientist Award (2004), Federal Laboratory Consortium's Award for Excellence in Technology Transfer (2009), USDA Secretary's Honor Award (2010, team leader), ADSA's J. L. Lush Award in Animal Breeding and Genetics (2012), National Association of Animal Breeder's Research Award (2014), and World Dairy Expo's Industry Person of the Year (2014).

For a career of service to dairy and food science, the dairy industry, and to ADSA, we are pleased to make Curtis Van Tassell a Fellow of the American Dairy Science Association.