2025 UT Precision Livestock Farming Feld Day Panel discussion participants:

Dr. Saulo Zoca: Moderator.

Dr. Troy Rowan:
Troy Rowan is an Assistant Professor and State Extension Specialist at the University of Tennessee's Department of Animal Science. Troy grew up in Southwest Iowa on a small seedstock Charolais operation. He joined the faculty at UT in January of 2021, where his research uses genomics and precision technologies to understand and predict economically-important traits in beef cattle. He is particularly interested in measuring cow efficiency, local adaptation, heterosis, and finding genetic approaches to increasing beef cattle sustainability. His work aims to deliver tangible solutions to U.S. beef cattle producers while answering fundamental biological questions. Troy's extension work supports the Tennessee Master Beef Producer Program and other national organizations, including the Beef Improvement Federation, NCBA, and US Roundtable for Sustainable Beef.

Dr. Hao Gan:
Dr. Gan is an associate professor in the Biosystems Engineering and Soil Science Department at the University of Tennessee, Knoxville. Gan's expertise includes sensor development, wireless sensor networks, agricultural IoT, and agricultural robotics. His recent work focuses on the development of camera systems and AI algorithms for the monitoring of animal behaviors related to their health and welfare and automated systems for specialty crops.

Dr. Mike Dodd:

Mike Dodd is a Senior Scientist in the Sustainable Agri-Systems team at AgResearch, based in Palmerston North, New Zealand. His main areas of research expertise include grassland ecology and soil science in the context of intensive pastoral systems. He has been involved in a wide range of research areas over 35 years in agricultural science, including pasture agronomy and germplasm development, functionality of pasture diversity, silvo-pastoral interactions, integrated catchment management, indigenous forest restoration, landscape ecology, soil carbon dynamics, and systems modelling.Mike obtained his undergraduate Agricultural Science (Hons.) degree from Massey University in 1989 and his PhD in rangeland ecology from Colorado State University in 1997. He has published over 100 refereed journal publications, 25 commercial contract research reports and a book on the use of native trees in pastoral farms systems. He is also currently on the Executive of the New Zealand Grassland Association. Mike's current project areas include carbon sequestration in diverse vegetation communities and soil types within pastoral farm systems, examining long-term patterns of grassland productivity,

management of forage plantain in dairy systems, improvement of clover performance in hill county mixed livestock systems and modelling the impact of soil health on pasture performance.

Dr. Matthew Wilson:

West Virginia University: Director of the WVU Alliance for Regenerative Livestock: Matthew E. Wilson is a native of Indiana and received his B.S. degree in Animal Science from Purdue University in 1994. A work-study position in Dr. Diekman's laboratory in Animal Sciences was stimulation enough for him to change his focus from pursuing a graduate degree in chemistry to animal science. He accepted a graduate assistantship at Iowa State University under the mentorship of Dr Stephen P. Ford where he earned the M.S. in Physiology of Reproduction in 1996 and the Ph.D. degree in Physiology of Reproduction with a minor in Genetics in 1999. The focus of his graduate research was on placental efficiency, embryo development and litter size in swine. Dr. Wilson accepted a Post-Doctoral Research Fellow position at West Virginia University in 2000 and in 2002, he accepted a position of Assistant Professor in the Division of Animal and Veterinary Sciences at West Virginia University. Dr. Wilson was promoted to the rank of Associate Professor with tenure in 2008 and promoted to Full Professor in 2013. Dr. Wilson has authored or co-authored three book chapters, 5 conference proceedings, more than 70 refereed journal articles, 11 technical publications and more than 80 abstracts. Dr. Wilson has been continuously funded externally since 2007. In recent years he has served as the Director of the WVU Alliance for Regenerative Livestock developing predictive algorithms to determine dry matter intake using machine learning, studying feed and water use efficiency and the impact of grazing on soil health and on farm renewable energy production. He also is involved in work to train service dogs for U.S. military veterans in need, helps train U.S. Army Special Forces Medics in animal agriculture and has a developing focus on agricultural development internationally.