Abstract:

Many challenges are faced in making dairy farming sustainable as a contributing sector in feeding 9–10 billion people by 2050. This presentation seeks to describe what sustainability means for the dairy industry and to assess how convergence thinking can help to advance sustainability of dairy farming. The concept of convergence thinking is suggested as key in the areas of: 1) science and technology development, 2) systems applications and 3) partnerships of stakeholders from academia, businesses, NGOs and government. The seminar speculates on science and technological advances in the dairy industry to 2050 and beyond.

Bio:

Scott was involved in bioengineering research and teaching for over 20 years prior to spending 14 years as a Cornell administrator (Director of Cornell University Agricultural Experiment Station & Vice President of Research and Advanced Studies). His early research was focused on thermoregulation in poultry, biomechanics of machine milking of dairy cows and electronic applications in agriculture, with particular attention to automatic identification and estrus detection of livestock, as well as the effects of transient current on dairy cows. Since returning to the faculty in 1998, he has focused on research in sustainable development. This research is directed to development of sustainable communities with emphasis on biologically derived fuels, renewable energy, recycling, managed ecosystems and industrial ecology. Grant support has been obtained from New York State Energy Research & Development Authority and USDA.
Background on the Cornell Initiative for Digital Agriculture:

An interdisciplinary group of Cornell University faculty began meeting in early 2017 to formulate an Initiative for Digital Agriculture (DA), believing that Cornell is uniquely equipped to lead in this emerging arena that will benefit the public for generations. We define DA to mean the application of computational and information technologies coupled with nanotechnology, biology, systems engineering and economics to both the research and operational sides of agriculture and food production. With approximately 100 faculty from 5 Cornell colleges participating, we are collaborating with external stakeholders to shape and implement a research agenda for DA that will build a pipeline of discovery and innovations for the next 10+ years. Please contact Gabriela Cestero at gc423@cornell.edu with any questions.