FREE WEBINARS

PLF AND SENSING TECHNOLOGIES IN EXTENSIVE GRASSLAND SYSTEMS

Precision Livestock Farming (PLF) techniques and novel sensing technologies are having a major impact on the management of intensive systems to improve efficiency, reduce disease and improve welfare. However, the deployment of technology into extensive grassland and rangeland systems has proved problematical due to issues of equipment and data costs, sensing of activities over a large scale and currently available technology.

PLF WEBINAR - PART 2 Beyond the state of the art - Where are we going?

19 NOVEMBER 17:00 – 18:30 (UK time)

Part 2 will concentrate on beyond the state of the art to examine the future potential of PLF and sensing technologies in extensive systems. Studies will also be presented by companies developing systems of sensing, communication and storage of data and transfer of relevant information to producers and policy makers.

Chair

Dr Tony Waterhouse

Dr Tony Waterhouse is a livestock systems research scientist focussing upon upland beef and sheep systems. He is former head of the Scotland's Rural College's (SRUC) Hill and Mountain Research and Beef and Sheep Research Centres and now holds an SRUC Emeritus Fellowship. Currently, he is focusing upon research on opportunities in wearable technology, both sensors and virtual fencing, and other environmental sensors using LPWAN IoT communication combined with technologies capable of providing animal monitoring, and animal management in real-time in upland pasture and rangeland systems. Current projects include the potential for sensor technology to aid welfare management in small ruminants, to manage cattle ranching systems in arid environments and the roll-out of virtual fencing systems in the UK

Speakers

Mark Jarman

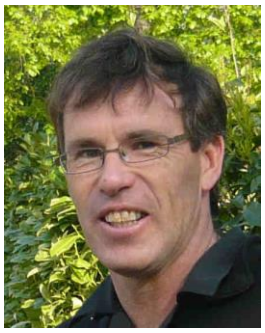
Mark Jarman is Head of Agriculture at the Satellite Applications Catapult, a UK innovation and technology company transforming the way the world uses satellite technologies and data. Mark is responsible for managing the Catapult's Agriculture market area and team which is focused on delivering a portfolio of activities that produces growth to the UK Space Sector and delivers innovative sustainable solutions to users across the agricultural system in countries such as Australia, UK, Chile, India, Malaysia, Brazil and Colombia. Mark is highly experienced at creating international partnerships that link technology, science, and policy to deliver innovative and impactful solutions to sectorial needs. Mark was the former Head of Earth Observation at the Catapult and previously managed a pioneering start-up URSULA Agriculture which focused on using remotely sensed data from drones and satellites for use across the agricultural sector.

Making Space Work for Extensive Grassland Systems

The presentation will explore the current role of space now and into the future across agriculture with a focus on Earth Observation and Connectivity. The discussion will focus on the challenges and opportunities that exist related to exploitation of space within Extensive Grassland Systems and how future developments will benefit the sector.

Professor Mark Trotter

Mark Trotter is an Associate Professor in Precision Livestock within the School of Medical and Applied Sciences at Central Queensland University (CQU). Mark is a member of the Future Farming Institute and leads the Precision Livestock Research Group at CQU. His research interests focus on spatio-temporal variability in agricultural systems and the development of sensors and management techniques that enable producers to increase production and efficiency in the face of variation found in soils, plants and animals. Mark grew up on a dairy farm and is focussed on developing tools and systems that enable data-driven-decisions in extensive grazing systems. Mark was awarded a Fulbright Future Scholarship in 2019 to undertake research in the USA at New Mexico State University and The Ohio State University. Although Mark is focussed on research, he continues to provide input into teaching activities where he is focussed on developing industry ready graduates. He has developed unique industry integrated pedagogies which result in engaged student learning. His students, both undergraduate and postgraduate are keenly sought after by both the research and commercial sectors.



Dr David Stevens

David Stevens is a senior Scientist in the Farming systems team at AgResearch Ltd, New Zealand's pastoral agriculture research institute. He specialises in the discovery and application of animal nutrition and pasture management information in dairy, red deer and sheep farming systems, is author of over 75 papers, and recipient of several awards for technology transfer and science impact. This includes researching the application of digital technologies to grassland farming. This research has been done in conjunction with technology developers Agersens Pty and Gallaghers Ltd to demonstrate the utility and value of virtual herding collars designed to direct animals in the landscape without the need for physical fencing. Lead-users have been engaged in conversations and workshops to explore the future potential of the technology to change the way we farm our ruminant livestock.

Virtual Herding: Changing Future Landscape Use

The presentation will describe the current state of virtual herding in New Zealand and Australia and explore potential implications of virtual herding technology on landscape use and production, environmental, social and financial impacts that have been developed by a lead-user group in New Zealand.