The Application of Precision Livestock Management

Hosted by

James Lawrence Pavilion - Gallagher Energizer Room

Thursday 7 May 2015
2.30pm to 4.30pm  $15/ticket

Seminar synopsis:
Precision Livestock Management (PLM) technologies have long been heralded as providing productivity gains to beef producers but cattle producers have adopted very few of the PLM research areas. Industry research has highlighted that technologies need to show strong financial benefits and provide hassle-free installation if they are going to be adopted. Attendees will hear about PLM tools that can be easily installed within operations and how PLM can provide direct benefits.

This seminar will provide key messages on:
1. The practical application of current technologies
2. Making the link with production benefits
3. Using technology to increasing operating efficiency

The seminar will provide practical handouts and use practical demonstrations to showcase PLM opportunities.
Using NLIS panel readers to improve cattle management
Presentations by: Dave Swain, Professor of Agriculture, CQUniversity
Chris O’Neill, PhD student, CQUniversity
Don Menzies, PhD student, CQUniversity
Research has shown that cattle behavior and measures of activity can be used to determine a range of production traits. The presentation will demonstrate how an animal’s identity, captured while walking to water, can be used to monitor a range of performance measures. Practical information on system setup and data processing will be provided to attendees so that they have the knowledge to implement the technology within their own operation.

Rangewatch - a satellite image based forage monitoring tool with integrated stocking rate calculator
Presented by Prof David Lamb, Professor of Physics and Precision Agriculture, University of New England
An understanding of the current amount of total green biomass, total biomass and biomass growth rates is necessary for graziers to better manage pasture utilisation in the northern Australian grasslands. This presentation will introduce ‘Rangewatch’, a MODIS satellite based pasture monitoring system and stocking rate calculator with an internet delivery platform, recently tested in the Kimberly region of WA.

Bio – Prof Dave Swain
Prof Dave Swain’s research activities are focussed on precision livestock management. His previous beef cattle research work involved tracking grazing activities; designing virtual fencing and using novel technology to measure oestrus events and maternal parentage. Dave is the Deputy dean of Agriculture and Environment Research at CQUniversity Australia. He is the central Queensland delegate on the Northern Beef Research Committee and chaired the review of Precision Livestock Management. In 2014, he received the Queensland Governments Science Champion award for his research in developing PLM tools that will increase reproductive rates in northern beef production systems.

Bio – Chris O’Neill
Chris O’Neill has dedicated a career of over 30 years to researching issues of productivity in Australia’s northern beef industry. He joined CSIRO Rockhampton in 1980 after graduating from Queensland Institute of Technology with a degree in biology. Through many changes to CSIRO Chris has steadfastly established a meaningful dialogue with beef producers. This is evidenced by a publication record of 30 peer-reviewed scientific publications and establishing a network of collaborating beef
producers in central Queensland. A passion for the genetics of adaptation was shown by Chris taking several study opportunities overseas including a 2007 Churchill Fellowship to study the integration of livestock behaviour into genetic improvement programs via biotelemetry. In 2010, Chris was an invited speaker at the 6th Brazilian North-eastern Congress on Animal Production in Mossoro, Brazil – recognition of Chris’ knowledge and commitment to improving livestock productivity in stressful environments. The exposure to global production systems has reinforced his strongly held belief that productivity hinges on selecting the animal that is best adapted to the production system. This belief is currently being pursued as a PhD with CQUUniversity.

Bio – Don Menzies

Don Menzies began his career in the animal science field in 1993 having gained tertiary qualifications in agricultural science. In 1996, he moved to Rockhampton to begin his involvement in the northern beef industry initially working for the Meat Quality Co-operative Research Centre. From 1999 to 2008, he worked in a number of positions within both research organisations and private companies providing supply chain and herd management solutions. Since 2008, he has been a company director and business owner focusing on project management solutions to the livestock industries. In late 2013, he returned to study having been awarded a PhD scholarship through CQUUniversity. He maintains strong ties to rural Australia and is passionate about valuing agriculture as a respected career and a major contributor of the Australian economy.

Bio – Prof David Lamb

David, a physicist, has worked on sensors for industrial, agricultural and environmental monitoring for 25 years. He was part of the original team who introduced precision viticulture to Australia in the late 1990’s and has worked in ‘precision agriculture’ (PA) since the very first forays into yield mapping technology, airborne video, electromagnetic soil surveys and more recently in testing systems for livestock tracking and precision livestock management. He established the University of New England’s Precision Agriculture Research Group (www.une.edu.au/parg) in 2002; and runs the university’s SMART Farm project (www.une.edu.au/smartfarm) aimed at demonstrating the value of broadband communications connectivity to the sustainability, profitability and lifestyle of farming.

For more information:
http://www.cqu.edu.au/