



## **FutureBeef: Smart science, New technologies, Profitable beef businesses**

James Lawrence Pavilion – Room 1  
Tuesday, 5 May 2009 – 10.30 am to 1.00 pm

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This seminar series will give some insight into how the Department of Primary Industries and Fisheries (DPI&F) is advancing Queensland's primary industries through world-class science, education and training.

They will take you under the microscope to look at the work their scientists are doing in the fields of molecular and genetic technologies. Then you will go behind the cheque book and learn about the economic drivers of a beef business and then 'go out to the paddock', meet some producers, and hear how they are integrating new technologies into their business.

**“Breeding and Genetics” – Dr Brian Burns.** Collaborative work with the Beef CRC has identified useful predictive relationships between early-in-life (12 months old) and later-in-life (24 months old) traits suggesting that superior reproductive capacity bulls can be identified at or before puberty. This study also showed that traits such as percent normal sperm, which is a component of a breeding soundness examination of a bull, are associated with earlier puberty and shorter post-partum intervals in cows. This finding indicates that bulls selected for high percent normal sperm will sire daughters that reach puberty earlier, and will re-conceive earlier particularly whilst still lactating. This has not been previously reported in the literature. There are both genetic and economic advantages in identifying new traits in the male to improve fertility of both

**Rebecca Gowan** will deliver a presentation highlighting the economics of beef businesses and programs to accelerate productivity. The session is supported by information from participants in DPIF whole of business projects, CQ Beef and Research to Reality, as well as state and national beef economic data.

**“Rumen Ecology” – Di Ouwerkerk.** Coconut and cotton seed oil may unlock the secret to reducing carbon emissions and ensure Australia reaches its 20% Kyoto emission reduction target. Cattle fed supplements containing coconut and cotton seed oil experienced increased liveweight gains without increases in methane emissions. What this means in real terms is that we can grow more cattle faster while decreasing methane emitted per unit of production. This is especially important when you consider the world food shortage. This research means that we can get more cattle to market faster (due to faster growth rates) and at the same time reduce methane emissions by reducing burping and flatulence. The research recommends that cattle receive supplements with coconut and cottonseed oil content of up

to six percent. Findings show that if this recommendation is followed then Australia can reduce methane emissions while improving productivity.

**Rob Rebgetz** will talk about his whole of business approach to improvements and his interactions with the DPIF and the role we fulfill for him and his business. Rob will explain how he has integrated new technologies into his business and the outcomes for his business.

### **About the speakers:**

**Brian Burns:** Brian joined the Department of Primary Industries & Fisheries in 1983. Brian has a PhD in Quantitative/Molecular Genetics from Texas A&M University, Texas USA. Brian is based at Rockhampton and currently conducting research in the areas of; gene discovery, epigenetic interactions and beef cattle fertility. Other recent work includes Adjunct Senior Lecturer/Research roles in genetics and animal breeding at The University of Queensland, St. Lucia James Cook University (JCU), Townsville.

**Rebecca Gowan** is an Ag Economist working the DPI&F in Rockhampton. Brought up on sheep and cattle property near Armidale in NSW. Studied Bachelor of Natural Resource Economics (Agricultural Economics) at University of Queensland. Worked part-time in Strategic Policy (DPI&F) in Brisbane during final year at University. In April 2008, moved to Rockhampton as the economist for the CQ BEEF project.

**Diane Ouwerkerk:** Di is a member of the Rumen Ecology Group, based at Department of Primary Industries & Fisheries, Animal Research Institute Yeerongpilly. The group has a number of innovative research projects to help increase the efficiency and productivity of sheep and cattle in the Australian environment and reduce ruminant methane emissions. Di utilises both traditional techniques as well as cutting-edge technology to gain a better understanding of the bacteria living in the rumen.

**Rob Rebgetz:** Rob is a Grazier from Thalanga Station, Charters Towers. Thalanga is an 18100ha property 56kms west of Charters Towers operated by Rob and Lisa Rebgetz and family. The main focus at Thalanga is on running a viable beef producing enterprise without compromising the integrity of the resources we use to conduct this business. These resources include, but are not limited to the people, the environment and the product. We try to keep our systems as simple as possible by implementing basic principles in a way that suits the resources. Rob and 'Thalanga' have hosted a number of DPIF R&D projects on grazing land management, production systems and NLIS technology. Rob is an active member of the Charters Towers Value in Beef (VIB) group. The VIB project supports grazier teams to explore and test research, technologies and concepts on property to find practical solutions to key animal production and land management issues.