

Australia's National Beef Exposition
7 May to 12 May 2012



James Lawrence Pavilion
Bos Indicus Room

Thursday 10 May 2012
8.30 am – 10.30 am

Oxidative stress, why the energy thief is stalling performance

Hosted by



Even in well managed operations, oxidative stress is an invisible energy thief that stalls cattle growth, impacts health and impedes fertility. This can restrict the ability to reach your greatest profit potential.

Put simply, an imbalance of oxygen free-radicals is what causes the ageing process. Humans are encouraged to slow this process by living a healthy lifestyle that includes dietary antioxidants, sufficient sleep, exercise and a healthy environment.

Imagine the accumulated free radical load a modern beef animal of high genetic potential growing at accelerated performance levels or raising a calf of high genetic merit will experience.

Every cell in the body at rest produces 3% leakage of free oxygen radicals, which are managed by the animals own reductive enzymes. However once these resting cells begin **work** such as growth, lactation or are under environmental load such as heat, the free radical level rises exponentially. If the animal loses this 'oxidative balance', the resulting cellular damage impacts every metabolic process and every damaged cell requires repair or replacement.

This seminar will explain the mode of action of oxidative balance, the latest research into its effects in ruminants and where and how it can be managed in the modern beef animal to ensure your herd or feedlot reaches its genetic potential.

Presentations and speakers include:

The real requirements of today's animal, *presented by Dr Monty Kerley*

Monty is a Professor of Animal Sciences at the University of Missouri, and is a highly celebrated researcher with many texts and over 50 innovative research papers to his credit. Dr Kerley will reveal some of the ground-breaking research he is conducting in the areas of young animal development, specifically heifer reproductive development, the dynamics of efficient growth and energy utilisation.

How potential is lost, *presented by Dr Dennis Nuzback.*

Dennis has extensive nutrition experience in both pure research and in field application with leading beef and dairy producers in the United States dealing with balance of performance and production. Dr Nuzback will share the latest findings on oxidative stress, its causes and the impact on animal growth, reproduction and overall performance.

Antioxidants, the natural assist, *presented by Dr Troy Wistuba*

Troy is the Ruminant Research Manager for Novus Nutrition and will release current research findings from around the globe including yet to be published findings from a bull trial conducted in Queensland this year. Dr Wistuba's extensive background in both commercial and stud beef qualifies him to speak on opportunities to develop healthy, fertile animals, ensure a safe, healthy beef product and provide strategies for dealing with under-performance in animals of high genetic merit.