Frontiers in Animal Industry

Graeme Martin

Chair in Animal Science
Head, School of Animal Biology
Deputy Director, UWA Institute of Agriculture
Rose has a 3-year-old son who now drinks only organic milk and eats only organic food. "The amount of chemicals and hormones in our food is horrifying," says Rose. "And most of the research ignores children."
Boycott Australian Wool

“Sheep are mutilated and castrated without painkillers, then disposed of by being slaughtered in the Middle East, after enduring a grueling, weeks- or months-long journey on over-crowded, disease-ridden ships with little access to food or water through all weather extremes”
Cows and sheep produce 90% of Australia's methane emissions in the agricultural sector.
Animal Products

Our societies are changing ...
New Market Forces

Clean
Hormones
Drugs

Green
Ecosystem care

Ethical
Animal welfare

Aspects of Quality

The future of our animal industries
Meat and milk depend on reproduction

Need to increase reproductive efficiency

... but using Clean, Green and Ethical practices
Reproduction: Controlled by Brain and Hormones

- Night-length
- Socio-Sexual Signals (pheromones)
- Gonadotrophins
- Chemicals
- Testis
- Sperm
- Egg
- Ovary
Nutrition

Peri-conceptual programming?

Ovulation rate

Sperm production

Organ development

Colostrum and Milk

Survival, growth, finishing

Mating

-8 weeks

0

6

12

18

Pregnancy

24

Lactation

32

Wean

Sell
Vision: Clean Green Ethical

Nutrition

Peri-conceptual programming?

Ovulation rate

Sperm production

Organ development

Colostrum and Milk

Survival, growth, finishing

-8 weeks

Pregnancy

12

18

24

32

Birth

Wean

Sell

‘Male effect’

Ultrasound
UWA’s Commitment to Agriculture

Best-practice farm for 2050.

Do it now.

UWA Future Farm 2050

www.ioa.uwa.edu.au/future-farm-2050
New Market Forces

Clean
Hormones
Drugs

Green
Ecosystem care

Ethical
Animal welfare

Not just the farmers!

Abattoirs, Feed producers, Factories, Transporters ...

The Future of Animal Industries

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