



# 5th Animal Welfare RD&E Strategy Forum

August 27th 2015  
Attwood, Victoria

# Program

- 9.30 Welcome. *Alan Tilbrook, Chair*
- 9.50 Project update. *Novel markers of pain in animals*
- 10.00 Panel discussion on emerging animal welfare issues and industry responses. *Facilitator – Paul Hemsworth*
- 11.20 Morning tea.
- 11.50 Panel discussion on emerging issues from the perspective of RDE providers. Threats to capability and opportunities to strengthen capability. *Facilitator – Darryl D’Souza*
- 1.00 Lunch.
- 1.45 Panel Discussion – Farm Animal Welfare Policy – Science or Emotion? *Facilitator – Scott Williams*
- 3.15 Afternoon tea.
- 3.45 Closing comments. *Alan Tilbrook*



# AWI

(Geoff Lindon)

- **Priorities:**
  - Slow adoption of current technology, and mindset needed
  - Lack of understanding of the issues along the supply chain by nearly all stakeholders
  - Invasive husbandry practises
  - Survival
  - Internal and external parasites
  - Drought, low nutrition
- Animal welfare is one issue which is often antagonistic to others, getting the balance right

# APL

(Darryl D'Souza)

- **Priorities:**

- Extension of industry outcomes to stockpeople (the target audience)
- On-farm welfare assessment
- Pain relief and topical pain relief especially during husbandry practices
- Welfare of animals in large groups
- Euthanasia
- Enrichment
- Engaging the community

# AECL

(Jojo Jackson)

- **Priorities:**

- Stockmanship for each production system.
- Hygiene, parasites and disease including biosecurity in non-caged systems. Registration of therapeutics.
- Range design - requirements for free range systems. Managing for acceptable environmental outcomes across the gradient of Australian climatic zones.
- Feather pecking and cannibalism.
- Optimal stocking density in all production systems.

# RIRDC Chicken meat

(Kylie Hewson)

- **Priorities:**

- How to filter appropriate welfare practice to the people that actually handle the animals and have a direct impact on animal welfare, (may involve training animal welfare officers who then train staff).
- Refining the pros and cons of free range production.
- Difficulty communicating what constitutes best practice in terms of production in Australia to customers and consumers.

# MLA

(Marine Empson)

- **Priorities:**

- Increase uptake and demonstration of welfare best practices across the whole supply chain;
- Reduce mortality rates on farms;
- Develop replacements for aversive procedures;
- Develop ways to minimise the pain of aversive procedures.



# AMPC

(Doug McNicholl)

- **Priorities:**

- Refining animal welfare measures and practices in livestock handling and slaughter,
- Determining and quantifying how these practices relate to meat quality and
- Establishing performance measures that can be communicated to government and trading partners.



# DA

(Helen Dornom)

- **Focus Areas**
  - Calf management
  - Lameness
  - Calving induction
  - Painful procedures
  - Others
- **Implementation Standards**
- **Evaluation and Review**



# Livecorp

(Wayne Collier)

- **Priorities:**
  - Improved communication, adoption and uptake of R&D outcomes across stakeholders
  - Structures and systems for measuring, reporting and providing assurance of performance
  - Management, handling, processing and traceability of livestock in overseas markets
  - Ongoing development of practices and innovations to support animal health and welfare during selection, preparation and transport

# Panel Discussion

(Paul Hemsworth)

- Wayne Collier - Livecorp
- Helen Dornom - DA
- Darryl D'Souza - APL
- Marine Empson - MLA
- Kylie Hewson – RIRDC Chicken meat
- Jojo Jackson - AECL
- Geoff Lindon - AWI
- Doug McNicholl - AMPC



# CSIRO

(Caroline Lee)

- **Research priorities:**
  - Develop a welfare risk assessment and management tool for livestock
  - Reducing mortalities and painful husbandry procedures
  - Resilience phenotypes
- **One big research question:**
  - Can we develop rapid, practical tools to assess welfare of farm animals?
- **Capability:** Research scientists (Caroline Lee, Alison Small, Brad Hine, Ian Colditz), Technicians: 5 full time, Students (4 PhD, 1 masters, 2 honours).
- **Resources:** 1500 ha field station (Chiswick, Armidale), animal houses, 600 ha field station (Lansdown Townsville)
- **Challenges:** maintaining capability
- **Opportunities:** cross-disciplinary research to address AW issues

# CSU

(Edward Narayan)

- **Research Priorities:**
  - Animal Health & Welfare: diseases, parasites, preventative healthcare, welfare practices.
  - Overall outcome: Reduced impacts of diseases, parasites and other factors impacting on animal productivity by improving preventative healthcare and feedbase management, on-farm bio-security and animal welfare practices.
- **Big research question:**
  - Validating physiological biomarkers of stress in animals
- **Capability:**
  - Facilities: Diagnostic Laboratory, Clinical Centre, Teaching Hospital, Pre-Clinical Centre, Equine Centre
- **Challenges:**
  - Adoption of any new innovation in welfare : GC alliance with farmer groups, e.g Farmlink.
  - Getting good HDR student recruitment.
  - Funding support for regional institutions and fostering links nationally.

# Univ Sydney

(Greg Cronin)

- **Big question:** Definitively & objectively measuring pain... beyond doubt
- **Species:** poultry (broilers, layers, ducks), pigs, cattle (dairy & beef), sheep, horses, alpacas, goats, fish
- **Discipline areas:** Behaviour, Stress physiology, Endocrinology, Pain measurement, Growth and development, Remote sensing technology, Health, nutrition & immune function, Veterinary science, Biosecurity and epidemiology, Meat science
- **Facilities:** Robotic-rotary dairy, Poultry unit, Piggery, Sheep and Beef farms, Equine unit, Vet clinics, Aquaculture lab & farm access
- **Threats to capability**
  - Short term: maintaining capability with less funding
  - Medium term: availability of experienced staff
- **Opportunities:** consolidation of faculties (Vet, Agric & Biol Sci), large (& increasing) student base

# UNE

(Amanda Doughty)

- **Research priorities:** Welfare implications for livestock management
  - Poultry: free-range, measures of welfare
  - Sheep: lamb survival, automated welfare monitoring systems
  - Beef: feedlot issues
- **Big question:**
  - What are the welfare implications of different livestock management strategies?
- **Capability:**
  - Geoff Hinch
  - Animal Science team (management and production)
  - Close collaborations with CSIRO (CSIRO and DPI on campus), Sheep CRC and Poultry CRC
- **Resources:** ~2800ha land adjoining campus, 1000head feedlot, free range poultry sheds, new animal house facility, SMART farm
- **Opportunities:** Resource based
- **Challenges:** Continued funding, retirements (succession plan)

# Murdoch Univ

(Teresa Collins)

- **Priorities:**
  - Animal welfare assessment tools (benchmarking, automated data)
  - Behaviour - Qualitative Behavioural Assessment (validation on farm as welfare measure all species)
  - Pain management (in cattle – castration)
  - Animal management, nutrition and disease in live export chain - saleyard, lairage, feedlot, slaughter (eg Inanition and salmonella in sheep; BRD in cattle, heat stress on board and in overseas feedlots)
  - Welfare indicators in export chain (stakeholder survey)
  - Maternal behaviour
  - Nutrition
  - Meat quality





- **Big question:**
  - How to get acceptable welfare measures adopted on farm
- **Capability**
  - 4 academics ~ 0.2 FTE + 4 academics < 0.1FTE + 1 post doc + 3 PhD
- **Resources**
  - Farm land in 3 locations; on the South Street Campus (51 hectare on-campus “Vet Farm”), at Mundijong (40 hectare “Mundijong Farm”) and Whitby Falls ( 200 acre)
- **Opportunities:**
  - Dependent on projects that support people- researchers & post docs
- **Challenges**
  - Long term funding to keep bright scientists in welfare science

# Univ QLD/QDAF

(Carol Petherick)

- **Priorities:**
  - Adoption
  - Mortality (ext sheep and cattle)
  - Monitoring of sheep and cattle
  - Lot feeding of cattle in North
  - Dairy – scale of production
- **Big question:**
  - Research – Mortality
  - “Positive welfare” focus may divert attention from the real challenges of “Negative welfare”



- **Capability:**
  - Petherick - beef cattle but experience with pigs and laying hens
  - Phillips (inc students) - using poultry as a 'model' for strategic research; live export
  - Mills - novel analgesic delivery method for cattle
- **Challenges:**
  - *Perceived* undue influence of industry on research with the outcome that researchers make a decision not to conduct research in specific fields/species
  - Reliance on limited number of funding organisations/lack of funding
  - Succession planning - Uncertainty of medium/long-term funding to enable succession planning. Also few veterinary students interested in working with farm animals or in research
  - Cost of doing research with large animals and expensive facilities (focus may change to social science/ethics due to high costs of research facilities at Gatton)
  - Geographical location of suitable research facilities (dedicated and commercial) – many people don't want/cannot spend large blocks of time in remote areas and if they are it adds to the expense of the research

# AWSC

(Cameron Ralph)

- **Pigs and Poultry research priorities:**
  - Farrowing and lactation housing: piglet welfare and development and sow welfare
  - Enrichment (functionality and consequences)
  - Free range design, use & biosecurity
  - Cognition/emotion
- **Pig and Poultry capability:**
  - Applied ethology, biometrics, immunology, neurophysiol, neuroendocrinology, psychology, sociology, stress physiology, veterinary science
- **Pig and Poultry resources:**
  - Roseworthy piggery & poultry facilities, Dookie, Parkville, Wooster, Columbus, commercial partners, video lab, equipment, endocrine lab.
- **Pig and Poultry opportunities:**
  - Advanced welfare assessment techniques – in research and field
  - Range usage and value
  - Prenatal and neonatal programming
- **Pig and Poultry challenges:**
  - Access to funds for fundamental research
  - Public attitudes and ‘standards’/regulations preceding science
  - Public attitudes and education

# AWSC

(Andrew Fisher)

- **Sheep and Dairy research priorities:**
  - Effects of large dairy herds and intensification, and heat stress
  - Dairy calf health and welfare
  - Effects of human and physical factors on sheep welfare on-farm and post-farm
  - On-farm sheep welfare assessment
- **Sheep and Dairy capability:**
  - Applied ethology, biometrics, immunology, neurophysiology, neuroendocrinology, psychology, sociology, stress physiology, vet science.
- **Sheep and Dairy resources:**
  - Ellinbank, Dookie, Hamilton, Turretfield, Struan, Minippa, Wooster, Columbus, commercial farms, video lab, equipment, labs
- **Sheep and Dairy opportunities:**
  - Establishment of a more strategic relationship with key industry funders
- **Sheep and Dairy challenges:**
  - Maintaining capability on multiple soft funds

# Across-sector

- **Big questions:**
  - “R” - How do animals perceive their situation and how well does this align with the public’s perception and expectations?
  - “D&E” – Uptake of current knowledge of best animal welfare practices both on-farm and post-farm
- **Across-sector priorities:**
  - Mortality and morbidity both on-farm (particularly in extensive and outdoor systems) and post-farm
  - Application of best animal welfare practices both on-farm and post-farm
    - Including competency of stockpeople (attitudes, technical knowledge, motivation, etc.) both on-farm and post-farm
  - Enrichment in confined production systems (feedlots, indoor systems)
  - Animal welfare monitoring (benchmarking and verification of standards)
    - Including development of a ‘whole of chain’ approach to animal welfare monitoring (and training).
  - Public attitudes to animal welfare and knowledge of practices
  - Painful husbandry practices

# Panel Discussion

(Darryl D'Souza)

- Teresa Collins – Murdoch Uni
- Greg Cronin – Uni Sydney
- Amanda Doughty - UNE
- Andrew Fisher – AWSC/VIC
- Caroline Lee – CSIRO
- Edward Narayan- CSU
- Carol Petherick – Uni QLD
- Cameron Ralph – AWSC/SA

# Panel Discussion

(Facilitator – Scott Williams)

- **James Kellaway** (MD, AECL)
- **Mark Peters** (Princ Policy Officer, Animal Health & Welfare – PIRSA)
- **Kevin Shiell** (Consultant, ADF)
- **Justin Toohey** (Advisor, CCA)