

NATIONAL ANIMAL WELFARE RDE STRATEGY FORUM - REPORT
TUESDAY AUGUST 7, 2012

Venue: CSIRO Queensland Biosecurity Precinct St Lucia

Aims:

- To identify potential collaborative projects (to be further developed post workshop and taken to investors under the auspices of the National Steering Committee)
- To identify gaps in capability which need to be addressed to cover RD&E across the 7 identified cross-sectoral research themes.

Welcome workshop overview

Alan Sheridan (DAFF)

Alan outlined the national framework for RD&E Strategies and reminded participants of the Statement of Intent that all parties signed up to. He emphasised that all Strategies are working towards:

- Greater co-ordination in innovation and RD&E in the primary industries sector.
- Should **Optimise** use of available resources by improved
 - **Harmonisation** of efforts,
 - **Collaboration** on projects,
 - national research **Capability**

He also provided an outline of the annual review and project development process, the role of the Steering Committee in leading this and the role of this Forum in generating and developing project ideas and gaps in RD&E capability.

Session 1

Update: “Identify and integrate measures of animal welfare that meet the needs of animals and society”

Drewe Fergusson

Main discussion points:

- Who is the audience / who will use these measures? What is the overall purpose of this project and how is Industry engaging in the process?
- Where will this be published?
- The pre-forum Survey identifies auditing as important - what is the relevance to this project?

Update: “Develop a public attitude monitoring scheme (ie monitoring public attitudes to inform animal welfare policy development)”

Grahame Coleman

- project development has stalled because we've discovered that a number of other organisations have work planned or underway in this area, and we need to take the time to understand this in some detail before committing to a particular project
- effort by the NFF in relation to the development of a national strategy to build consumer trust in agriculture has been a key development
- the forum felt that the proposed Coleman project (steps 1-3) would generate the essential underpinning information to guide the development of the NFF strategy
- for this reason, the continued development of the Coleman et al project was supported by the Forum

Main discussion points:

- How much of this project is a Research or extension focus?
- Is there Community interest in the science and detail of Animal Welfare practices? Or do they just want to know Animal Welfare is looked after?
- There was general support for this project and on the need to co-ordinate efforts in this area nationally.

Session 2 Summary of priority cross-sectoral issues identified in Forum Survey (prior to Forum) under each Theme - Geoff Kroker

Discussion / feedback on emerging issues and opportunities – for each Theme

<i>Animal Welfare Assessment</i>	<i>Pain Assessment and Management</i>	<i>Management, Housing and Husbandry</i>	<i>Transport, Euthanasia and Slaughter</i>	<i>Public Attitudes, Social Science and Community</i>	<i>Education, Training and Extension</i>	<i>Policy and Market Access</i>
<p>Remote sensing – not just rangelands – is monitoring livestock and facilities – have technology – is adoption!</p>	<p>Development of non-surgical alternatives needs to be highlighted as the key issue – with 2 emphases – (i) reduce need for surgery; and (ii) mitigate impacts of surgery.</p> <p>Suggested project on commercial in confidence issues should be RDC’s / organisations, not researchers!</p>	<p>What about impacts from drought, flood, bushfire, shade, predators, etc?</p> <p>Remote sensing technology could be useful.</p> <p>Still need to consider extensive production systems.</p>	<p>Has been a lot of work to date (eg 20 years ago). Australian Government process – looking for new methods of stunning – acceptable to various religious groups. Thru-chain risk management in this area is important! And is also part of trust in agriculture! Need to further explore religious acceptance of stunning. Note - Not just religious acceptance – and we do need alternatives.</p>	<p>Note – there is a group in Canberra trying to get AW into school curriculum.</p>	<p>Nothing on <u>Extension!</u> – we need a description of current extension efforts! Believe that a lot of AW info is embedded in other education / extension systems – but need to check – Is the AW message getting through?</p> <p>What AW training exists in poultry? Research question – what is the value of training in AW?</p> <p>Possible project – getting <u>value</u> out of existing research. Possible project – how to be a better communicator / to achieve change? Should there be a link to National Extension Project?</p> <p>Note – there is already a MINTRAC project – more extension than research. Aquaculture – most of our work is extension to practitioners. Pigs – research feeds into QA system & training onfarm.</p>	<p>Code of Practice – contains a certain level of competency <u>but</u> differs across States! – need consistency?</p> <p>Labelling – is there the intention to cover imported product (to give consistency)?</p> <p>Is the work in this area evidence-based? Threat of international rules – challenge that this is not really an issue!</p> <p>Those working in policy are also end-users of research, therefore need extension to them!</p>

Potential projects under each Theme

<i>Animal Welfare Assessment</i>	<i>Pain Assessment and Management</i>	<i>Management, Housing and Husbandry</i>	<i>Transport, Euthanasia and Slaughter</i>	<i>Public Attitudes, Social Science and Community</i>	<i>Education, Training and Extension</i>	<i>Policy and Market Access</i>
1 Promotion of positive welfare states in livestock production	<p>1. Investigate positive welfare states to mitigate aversive practices</p> <p>2. In confidence meeting of co investors (including pharmaceutical companies) and researchers to minimise duplication of effort</p> <p>3. Alternative methods of ID to avoid branding, ear marking, tagging etc.</p>	<p>1. Impacts of intensification on animal health and welfare was a common theme.</p> <p>(note - most projects suggested were industry/species specific i.e. not cross sectoral)</p>	<p>1. Develop a national framework for animal welfare in abattoirs, from receipt to slaughter, that aligns SOPs in both export and domestic abattoirs</p> <p>2. Optimal use of CCTV in abattoirs to improve animal handling</p> <p>3. Gas stunning systems for pigs and poultry</p>	<p>1. Education of the public on livestock production practices and the assessment of animal welfare</p> <p>2. Develop a national strategy for building consumer confidence and trust in the livestock production industries</p> <p>3. Enhance consumer knowledge and acceptance of alternative production systems that are not “free range”</p> <p>4. Develop green and animal welfare friendly QA systems for livestock production</p>	<p>1. Develop ProHand transport package</p> <p>2. Animal welfare training at domestic abattoirs</p> <p>3. Promote AWSC animal welfare education package to industry and modify as required for farm and post farm gate application</p> <p>4. Education material for schools</p> <p>5. Extension to producers e.g. alternatives to surgery</p>	<p>1. Identify and establish lines of communication with state and national policy analysts</p> <p>2. Consistent and accurate labelling of animal products</p>

Discussion (*in italics*) on project ideas and priority projects identified:

Animal Welfare - 1 Promotion of positive welfare states in livestock production – *suggest that work in this area should wait until the project by Drewe et al is completed and can inform what is required in this area.*

Pain Assessment and Management - 1. Investigate positive welfare states to mitigate aversive practices – *need to link work in this area to Themes 1, 2 3 and 4. Should be about finding best practice. See this as pilot work – as background to the other research Themes.*

3. Alternative methods of ID to avoid branding, ear marking, tagging etc. – *there is a lot of existing technology in this area – some of this is about extension and policy changes – need to scope the potential applications and benefits for AW and Industry. Will be driven by both producers (will they use?) and by consumers. Challenge will be use in extensive industries – will need to have other uses / applications that AW can then link to (eg. animal behaviour, condition etc).*

Management, Housing and Husbandry - 1. Impacts of intensification on animal health and welfare was a common theme. – *Need to identify the drivers, risks and benefits associated with changing intensification of animal production systems. Need a set of principles and framework to be able to evaluate the impacts and trade-offs of intensification and changes to intensification.*

Transport, Euthanasia and Slaughter - 3. Gas stunning systems for pigs and poultry – *this is not just about pigs and poultry – needs to be about humane slaughter – and is more than just gas stunning. Should be a scoping exercise on ‘the application of stunning for humane slaughter’.*

Public Attitudes, Social Science and Community – *much of this is already considered in Grahame’s project.*

4. Develop green and animal welfare friendly QA systems for livestock production – *already have a lot of QA systems – BUT – not for the extensive livestock / animal production systems!*

Education, Training and Extension - 5. Extension to producers e.g. alternatives to surgery – *largely Industry sector specific! Might be some benefit in looking at the National Extension work?? Could be a message back to PISC – extension needs addressing – need Animal Welfare to be communicated via the other RD&E Strategies – ie. Integrated messages!*

Discussion indicated 5 project ideas for further scoping / development:

1. Positive welfare states.
2. Alternative methods of identification.
3. Principles and framework to evaluate impacts and trade-offs in intensification of production systems.
4. Stunning and Humane slaughter.
5. Green and Animal Welfare friendly QA systems.

Session 3 Work in teams to scope identified priority projects

THEME: Positive Welfare States	
PROJECT TITLE: Investigate Positive Welfare States to Mitigate Aversive Practices.	TEAM MEMBERS: Drewe Ferguson CSIRO, Jane Littlejohn AWI, David Losberg ADF, Alan Tilbrook AWSC, Rebecca Doyle CSU, Peter Windsor USyd, Jim Webster AgRes
<i>Problem definition?</i>	Positive welfare encompasses – 1. Whole life experience / quality of life → how to assess. 2. What is a positive experience? 3. Individual positive experiences and how it interacts, ie negative experiences.
<i>Project objectives / outcomes?</i>	1. Definition of positive experience → methods to identify and validate this. 2. Quantify the benefits of positive welfare states.
<i>Deliverables?</i>	1. Examples of positive welfare experiences. ** Review what is out there - Drewe et al project. 2. Future research areas → sector specific. 3. Provide welfare methods for future research → act as a pilot study for RDC support.
<i>Broad methodology / methodological considerations?</i>	1. Validation of methods to assess positive welfare. 2. How to deal with different species needs. 3. Ensure we know the baselines of measures from which positive changes can be identified.
<i>Timelines?</i>	Drewe's project - early 2013. 2013 - identify collaborative groups and topics → WORKSHOP IT!!
<i>Potential collaborators?</i>	CSIRO (sheep, with UQ), AWSC (pig, poultry), CSU (sheep), Murdoch, USyd (pigs, poultry, cattle), Ag Research (horse, cattle), SARDI (poultry).
<i>Potential investors?</i>	RDC's for different industries.
<i>Indicative resources required?</i>	\$\$\$\$ Lots of Money.

Plenary session – feedback

Positive Welfare States

- Depends on what outcomes!
- Can you provide example/s of this type of work? eg pigs.
- Animal production – what will be the benefits / value proposition from positive welfare states?
- Has to be evidence-based for QA / policy etc.
- Still want to see results of review (before you get too far into this project)!
- NB – have to look at both negative and positive impacts!

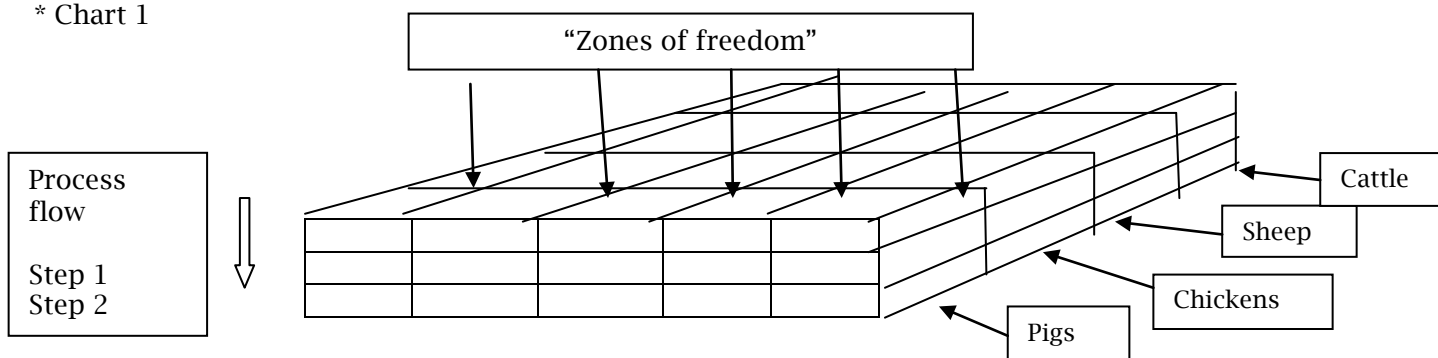
THEME: Pain Assessment and Management	
PROJECT TITLE: Animal Welfare from Space - Alternative Methods of Animal Identification.	TEAM MEMBERS: Lyndy Scott AAWS, Teresa Collins Murdoch
<i>Problem definition?</i>	Pain and welfare implications of ID methods (brand, ear notch) for extensive and intensive animal production systems.
<i>Project objectives / outcomes?</i>	An electronic means to replace branding and age status identification and enhanced welfare for animals
<i>Deliverables?</i>	- Identification system capable of remote sensing and data recording (weights, etc, feed consumption). - No painful ID procedures. - More frequent monitoring of welfare parameters, especially for extensive production systems (need to explore the potential → eg. from space-like pasture and soil).
<i>Broad methodology / methodological considerations?</i>	Need an ID device that will not migrate. (a) satellite; (b) distance. 1/ <u>Scope</u> ID technology and remote sensing. Costs, availability, reliability. 2/ <u>Develop</u> implantable tag that is non-migratory. Need identification readers -for both intensive and extensive or remote production systems - weight stations, feeders, etc SCOPE: the potential for image analysis to identify animals.
<i>Timelines?</i>	Scope - 6-12 months. Develop tag - ~ 2 years.
<i>Potential collaborators?</i>	CSIRO → space. ARC linkage grant. Discovery. Within 3 years - remote welfare sensing. NZ - AWI telemetry??
<i>Potential investors?</i>	RFID companies
<i>Indicative resources required?</i>	

Plenary session - feedback

- Potential for Image analysis compared with implants?
- Feasibility - has to build on existing approaches / has to be more cost effective.
- Is this about the ID of animal +/- information about the animal and surrounds and production??
- Potential for links to AWI scoping work!
- Additional work - implantable chip.

THEME: Management, Housing & Husbandry	
PROJECT TITLE: Framework to Evaluate Changes in Animal Production Intensification.	TEAM MEMBERS: Alan Sheridan DAFF, Pheroze Jungalwalla Aquaculture, Grahame Coleman AWSC, Gary Sansom ACGC, Laurie Dowling QDAFF, Bruce Mullan DAFWA
<i>Problem definition?</i>	Competing Drivers!! Competition for available resources in the face of projected human population >9 billion. Increased demand for high quality protein that is “ <u>AFFORDABLE</u> ” and “ <u>WHOLESOME</u> ” (ethically, etc). A range of pressures (animal welfare, animal rights, financial, environmental) is on producers to change production systems. Scoping the common areas of risk to animal welfare - *Identify drivers, risks and benefits, associated with changing intensification of animal production]. Scoping the likely changes to animal welfare risk in changed systems will facilitate <u>planning to manage them</u> .
<i>Project objectives / outcomes?</i>	A framework to facilitate planning to manage animal welfare risks when changing production systems. Bonus 1) Understanding likely hazards therefore increase extension and public communications messages; and 2) Framework can incorporate “weightings” derived from consumer attitudes work to look for “valued” systems.
<i>Deliverables?</i>	1) Framework to <u>analyse</u> change/s in production system by likely animal welfare work. 2) Predictive risk assessment to enable risk management planning (do as a pilot study if funded). 3) Understanding of <u>competing drivers</u> .
<i>Broad methodology / methodological considerations?</i>	Ref Chart 1*. Need animal-based measures, <u>extensive</u> literature review and/ <u>or</u> expert forum working group. ? qualitative <u>or</u> semi-quantitative method for risk matrix?
<i>Timelines?</i>	
<i>Potential collaborators?</i>	AWSC, NAC (in-kind), <u>all</u> industry sectors.
<i>Potential investors?</i>	All industry sectors.
<i>Indicative resources required?</i>	Lots.

* Chart 1



Plenary session – feedback

- We already know a lot about intensification – so what are the knowledgeable gaps?
- → Focus – should be on weighting one freedom against another!
- → Need Data – to underpin justification / provide rationale.

THEME: Transport, Euthanasia and Slaughter	
PROJECT TITLE: Humane Slaughter	TEAM MEMBERS: Fahri Fahri AMPC, Cheryl O'Connor MPI, Ben Diggles Aquaculture, Wayne Collier Livecorp, Pat Mitchell APL.
<i>Problem definition?</i>	Effective, humane slaughter while working in accordance with religious and cultural beliefs according to expectations of communities and export partners and producers. Also disease culling.
<i>Project objectives / outcomes?</i>	Development of alternatives or refinements to current slaughter techniques that are considered humane and culturally acceptable.
<i>Deliverables?</i>	Commercial viable alternative to current slaughter practices. Communication package.
<i>Broad methodology / methodological considerations?</i>	<ul style="list-style-type: none"> • Desktop study – including culling for disease. • Literature review including specific market requirements, identifying knowledge gaps. • International survey – scoping study. • Consideration into team selection and TOR – delivery of a framework that can work across industry. • Must have knowledge gaps covered before commissioning projects to adopt or modify/develop systems. • Prioritise knowledge gaps.
<i>Timelines?</i>	6-12 months.
<i>Potential collaborators?</i>	<ul style="list-style-type: none"> • Processors, meat scientists, experts in field of slaughter technology, policy? • Physiologists and animal welfare and animal welfare lobby groups. •
<i>Potential investors?</i>	Processors, State and Federal Governments.
<i>Indicative resources required?</i>	Consultation with stakeholders, governments, industry peak bodies and technology companies as identified from TOR.

Plenary session – feedback

- Do we have welfare standards for sheep / cattle? How will this add value? → need standards and guidelines and way of demonstrating to consumer.

THEME: Public Attitudes, Social Science and Community.	
PROJECT TITLE: Welfare-Friendly Labelling and Branding – Scoping Study	TEAM MEMBERS: Jeremy Skuse AWSC, Bridget Peachey DA, Geoff Kroker DPIV, Jim Rothwell MLA.
<i>Problem definition?</i>	APL (PigCare) – third party audit – Hazardous Chemical Welfare. No means for the consumers to judge welfare credibility of the food nor for producers to demonstrate a welfare standard. Potential for supermarket to implement a welfare brand (without the supporting science / evidence). Attach to existing QA systems.
<i>Project objectives / outcomes?</i>	An understood brand that they trust to give high welfare standard. High level – nutrition / behaviour / 5 freedoms. Across all livestock industries.
<i>Deliverables?</i>	Measurements versus 5 freedoms.
<i>Broad methodology / methodological considerations?</i>	Scoping study – what is being done overseas and how – supermarket, Red Tractor, RSPCA, Global Animal Partnership – USA. AW – pigs, chooks, etc. Key learnings – what happened, what works, what doesn't. Interact with industry bodies -> recommendations.
<i>Timelines?</i>	6 months.
<i>Potential collaborators?</i>	Students, RO/RA Unis / CSIRO / DPI's
<i>Potential investors?</i>	RDC's, DPI's / DAFF
<i>Indicative resources required?</i>	6 months. \$70K. Salary, travel.

Session 4 Discussion of capability analysis under each project Theme

Participants indicated that it is very difficult to describe possible future capability gaps – apart from known pending retirements. It was suggested that capability analysis is a specialised task.

Current capability gaps included:

- Science interpretation
- Tropical beef production research facilities.

In relation to future capability requirements and ideas to address – suggestions included:

- Animal Welfare fellowships in addition to specific projects
- 3 to 5 year programs with a post-doc position built in.

Much of the discussion focussed on how to best identify future capability needs – the main comments were:

- What is the minimum critical mass required to retain core capability??
- How do we engage better with the non-primary industry RD&E providers (eg. social science)?
- We seem to get stuck at looking at the existing institutional arrangements / current capability – not what is required into the future.
- We are lacking incentives such as “endowed chair” positions at Universities – with Industry sponsors.
- Still need to define the need – what is missing? If the need is strong enough collectively we will find the resources required.
- What needs are we not addressing – missing out on??

Session 5 Next steps Alan Sheridan

1. Circulate Forum report to Forum attendees and stakeholders 13 Aug
2. New proposed project leaders will work up the projects on supplied template and submit to Jeremy before Aug 31
3. Project proposals will be considered by Steering Committee in September and recommendations will be made to the RDCs for funding consideration.

Forum Participants

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