**Venue: Plant Research Centre, Waite Campus, Adelaide**

**Aims:**

- Consider potential project ideas within previously identified priority areas, survey feedback and any additional projects arising from the pre-Forum survey,

- Identify ideas that are worth progressing, and encourage further project development and

- Identify prospective collaborators to assist in project development

Forum presentations are available on-line **LINK**

**Welcome**          Jackie South (DAFF)

Jackie welcomed participants to the Forum and outlined the national framework for RD&E Strategies. She emphasised that the PISC process is 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**

**Forum overview**     Alan Tilbrook (SARDI/Animal Welfare Science Centre)

Alan outlined the Forum program and reminded participants that in their deliberations towards prioritising and scoping identified projects that they should bear in mind that these projects should be:

*Nationally Significant*

*High priority*

*Cross-sectoral*     and require significant

*Collaboration*

**Session 1**

**Project Development process**   Darryl D'Souza (Australian Pork Limited)

Darryl gave a presentation on the National AW RD&E Strategy project development process which will improve the timeliness of project application and approval.


**Session 2**

**Project report:  "Identify and integrate measures of animal welfare that meet the needs of animals and society"**

Paul Hemsworth (AWSC) on behalf of Drewe Ferguson (CSIRO)

**Main discussion points:**

- Application is clear and suitable for intensive livestock production; the application is less clear for extensive sectors. Need to determine the drivers to adoption for each sector.

- If geared to establishing the welfare credentials of a particular livestock sector for the export market, most markets do not rate AW highly.

- AWI is developing a welfare matrix for wool in response to customer demand

- Executive summary is available on-line **LINK**


**Project Update:  "Develop a public attitude monitoring scheme (ie monitoring public attitudes to inform animal welfare policy development)"**

Vanessa Rohlf (AWSC)

**Main discussion points:**

- Will generate information on industry knowledge of opinion leaders.

- An apparently similar project recently undertaken at Central Queensland University could inform this project.


**ARC Linkage Project Update:  "Getting to the Meat of the Matter: Social & Economic Issues in Animal Welfare in Australia's Livestock Industries"**

Rachel Ankeny and Wendy Umberger (Univ Adelaide)

Rachel and Wendy outlined the aims and method of this ARC linkage project. In particular, the project aims to:

- Develop a whole-of-chain approach to understanding animal welfare along the animal production value chain in Australia

- Determine how these perceptions influence consumer and industry behaviours

- Provide insight on how to foster better alignment between industry practices and consumer demands

Partners include DAFF, Coles, Elders, SARDI and Richard Gunner's Fine Meats.

**Session 3**

**Pre-Forum Survey report**

**Jeremy Skuse AWSC**

Jeremy outlined the results of the pre-forum survey which indicated the following 5 project/areas which were supported for discussion at the Forum:

1. Investigate positive welfare states / handling procedures to mitigate aversive practices

2. Develop a better understanding of what prevents/inhibits adoption and develop more effective methods for technology transfer. Cross sector/strategy

3. Develop whole of chain animal welfare programs which include objective standards and training.

4. Develop stockperson training packages for all sectors

5. Commission work to identify current and emerging gaps in Australian animal welfare RD&E capability and recommend strategies to address these gaps

**Project discussion/shortlisting**

Facilitated by Alan Tilbrook (SARDI/Animal Welfare Science Centre)

**General Discussion points following presentations:**

- Public often have strong opinions based on little or no knowledge

- Community expectations are often at odds with what is achievable by industry

- When 'educating' the community, science messages can be 'off-putting' to the community and it may be best to convey simple messages that build trust as most people don't want to know the 'nuts and bolts' of the argument

- Science is not always the answer - the pork industry could not effectively defend the use of stalls so decided to introduce the 'Building our Future' program and sought and obtained industry backing for a voluntary ban on sow stalls

- The dairy industry has launched the 'Legendary' campaign which seeks to emphasise the role of dairy by telling the stories of the people behind the product and the quality and sustainable nature of the products they produce and their contribution to the Australian economy. The dairy industry's focus is on extension in targeted areas

- Messages to the community must demonstrate public good

- The area of understanding/measuring community/consumer attitudes and behaviour together with community/consumer education is a huge area and may benefit from a 'working party' which would be cross-sectoral and cross-strategy and address the issues of welfare, environment, etc.

*The discussion then moved to work which was being performed or proposed in Australia which may not be known to all, examples were:*

- AWSC thinking around an ARC linkage project looking at positive human-animal relationships and stress resilience

- CSIRO post-doc looking at affective states in sheep
- CSU training package in overseas live export markets - funded by MLA
- UNE/CSIRO review of new approaches to assess welfare in free range laying hens
- UNE/CSIRO/SARDI/UoA/AWSC developing collaborative program to determine stocking density for free range laying hens
- OIE Collaborating centre twinning proposal and pilot AW training program in SE Asia
- MLA commercial-in-confidence work on new analgesics
- MLA/UQ and MLA/AWI work looking at novel delivery methods for pain relief
- Uni Adelaide internally funded project looking at how families talk to kids about meat
- Uni Syd/AWI work on measuring producer attitudes to pain relief
- Novatec analgesia before beak trimming
- Sheep CRC extension has a wellbeing and productivity program
- CSIRO/UNE/Uni Syd doing work to develop biomarkers to assess both positive and negative welfare states
- Coleman is doing work on adoption funded by AMPC
- UWA/AWSC are investigating the integration of ProHand in low-stress sheep handling package funded by MLA
- Uni Syd is building capability in remote sensing technologies

*As a result of this discussion, the Forum suggested the following:*

- A register of projects and capability should be developed and maintained
- Funders will be the initial source of information
- Animal Welfare research activity collated will initially be in the livestock sector but will be widened to include other activity from other sectors which has relevance to the livestock sector
- Any such register must have a 'champion' who will ensure that information is gathered from relevant sources
- Executive Officer will gather information on above activities and circulate

*Alan called for additional project ideas for consideration, 4 additional projects were identified:*

1. Pain measurement
2. Integrated approach to invasive procedures
3. Novel ways to measure positive or negative welfare
4. Develop a platform to "host" animal welfare RD&E activity

Attendees were split into 6 groups and were asked to consider the projects identified by the survey together with those identified at the Forum and to cast votes for the 'top' four priority projects.

Attendees were reminded that when considering the projects that they should bear in mind the need to identify projects which would be nationally significant, high priority, cross-sectoral in application and require significant collaboration.

The 'top' four projects identified were (in order)

1. Develop a platform to "host" animal welfare RD&E activity
2. Investigate positive welfare states / handling procedures to mitigate aversive practices
3. Commission work to identify current and emerging gaps in Australian animal welfare RD&E capability and recommend strategies to address these gaps
4. Pain measurement

Because a project brief to commission work to identify current and emerging gaps in Australian animal welfare RD&E capability and recommend strategies to address these gaps has already been presented to the Steering Committee, Forum attendees were asked to scope the other 3 projects and present their findings to the group.

## Session 4    Work in teams to scope identified priority projects

| THEME:  Animal welfare assessment | |
|---|---|
| **PROJECT TITLE:  Investigate Positive Welfare States/Handling practices to mitigate aversive experiences.  ("The look of happiness")** | **TEAM MEMBERS:  Caroline Lee CSIRO, Kate Plush Uni Adel, Mairi Stewart AgRes, Rebecca Doyle CSU, Allan Sheridan DAFF,  Graham Pratt AVA, Jojo Jackson AECL, Sam Brown Livecorp, Anthony Keyburn CSIRO, Geoff Kroker DEPI, Vanessa Rohlf AWSC, Claire Webber Aust S BlueFin Tuna** |
| *Problem definition?* | <ul><li>Eliminating the negatives is NOT enough to improve welfare</li><li>Research is not clear on measuring positive welfare states (methodology incomplete)</li><li>Targeting experience to provide a positive state of being may ameliorate the welfare impact of aversive experiences through reducing level of stress</li></ul> |
| *Project objectives / outcomes?* | 1. Series of methods for measuring positive states with <u>validation protocols</u> (industry and scale specific) |
| *Deliverables?* | 1. Validated technique(s) for identifying when animals are experiencing positive states for broad industry application |
| *Broad methodology / methodological considerations?* | 1. Assessing a number of currently used methods (eg QBA, Cognitive Bias) against each other<br>2. Assess these existing tests against physiological measures such as heart rate variability/indicators of parasympathetic activity<br>3. Conduct in 2 species (sheep, poultry, pork ?) |
| *Timelines?* | <ul><li>3 year project</li></ul> |
| *Potential collaborators?* | Caroline Lee CSIRO, Rebecca Doyle CSU, Dominique Blache UWA, Paul Hemsworth AWSC, Kate Plush Uni Adel, Mairi Stewart AgRes, UQ, SAC, Boivin, Boissy INRA |
| *Potential investors?* <br> *Cash/in-kind* | RDCs, Sheep CRC, CSIRO, CSU, Uni Adel, SARDI, MPINZ, INRA, ARC, Bristol Univ |
| *Indicative resources required?* | Pigs - Uni Adel, Sheep - CSIRO (Armidale), Poultry - Uni Syd (Camden)<br>2 CIs, c.$45,000 |

**Plenary session – feedback**

- This project was identified last year and continues to be considered priority
- Budget is not sufficient for this piece of work
- This is a significant area and will grow in importance
- The scope is massive!
- Strategic targeting of species will be important
- Use 2 species as models
- Methodology developed will allow for cross-sectoral application
- Would be appropriate for submission to ARC as a Discovery project (linkage)
- Rebecca Doyle and Caroline Lee will convene a planning meeting to discuss potential ARC proposal

| THEME:  Pain Assessment and Management | |
|---|---|
| **PROJECT TITLE:   Development of Novel Pain Measurement Techniques.** | **TEAM MEMBERS:  Paul Hemsworth AWSC, Vivien Kite RIRDC, Melanie Latter DAFF  Qld, Susan Hazel Uni Adel, Keith Adams AAWS, Janelle Hocking-Edwards SARDI, Jane Littlejohn AWI, Greg Cronin Uni Syd, Amanda Doughty UNE, Kathleen Ferme Sheepmeat, Phil Glatz SARDI, Jeremy Skuse AWSC** |
| *Problem definition?* | <ul><li>Pain needs to be defined in acute, non-pain phase and chronic</li><li>Look at new ways to measure pain.</li></ul> |
| *Project objectives / outcomes?* | <ul><li>Development of generic techniques that can be used across species as research tool(s) and also in-field tool(s)</li><li>A validated, objective scale of pain - use behaviour, physiology, electrophysiology, production and anatomy</li><li>Scale may not be applicable across species, but the developed methodology will be</li><li>Scale could be used to assist pharmaceutical registration</li></ul> |
| *Deliverables?* | 1. Literature review or book<br>2. Practical technique for use in research and in the field |
| *Broad methodology / methodological considerations?* | 1. Literature review - scoping the paradigm changes occurring in our understanding of the pain response. Looking at current methodologies (stress physiology, behaviour) and new techniques under development (low anaesthetic technique, microarrays)<br>2. Testing the chosen new technique(s)<br>    a. Select a model species<br>    b. Test new technique(s)<br>    c. Validate in other species |
| *Timelines?* | <ul><li>Part 1 - Lit Review 6 months (24 mths if book)</li><li>Part 2 - ?</li></ul> |
| *Potential collaborators?* | Mark Hutchinson Uni Adel, Craig Johnson Massey, Peter Windsor Uni Syd, Paul Hemsworth AWSC, Andrew Fisher AWSC, Roslin Inst |
| *Potential investors?* | Part 1 - RDCs<br>Part 2 - ARC Discovery/Linkage, NHMRC |
| *Indicative resources required?* | ? |

**Plenary session – feedback**

- Work needs to be done
- Recent work suggests opiates may worsen pain
- Part 1 may be a suitable topic for a book
- Part 2 will be novel and appropriate for ARC or NHMRC funding
- Susan Hazel offered to take the lead on any project scoping

| THEME:  Education, training and extension | |
|---|---|
| **PROJECT TITLE:  Communicate RD&E activities through a live information platform.** | **TEAM MEMBERS:  Jane Littlejohn AWI, Greg Cronin Uni Syd, Amanda Doughty UNE, Kathleen Ferme Sheepmeat, Phil Glatz SARDI, Jeremy Skuse AWSC, Teresa Collins Murdoch, Darryl D'Souza APL, Simon Ladd Uni Adel, Carol Petherick UQ, Lyndy Scott AAWS** |
| *Problem definition?* | • Strategy participants not aware of all AW projects which are occurring or in development within the livestock sector<br><br>• Lack of knowledge re. projects which may be applicable to livestock sector but are being carried out in other sectors<br><br>• Risk of project duplication<br><br>• Little understanding of the quality of research performed |
| *Project objectives / outcomes?* | • To improve understanding on available Australian livestock welfare capability and quality of researchers to fulfil the requirements of the RDE framework.<br><br>• To demonstrate to government and stakeholders activities undertaken and value obtained including leverage via cross-sectoral strategy.<br><br>• Enhanced collaboration<br><br>• Register of projects to be consulted before "building" a project<br><br>• Better targeted future research |
| *Deliverables?* | • An electronic register of projects and capability to be available on-line to strategy members - information to be extracted from core and non-core providers with the main source of information coming from funders of AW RD&E.<br><br>• On-line register to be populated by providers/funders - process to be managed by a third party (Executive function?)<br><br>• Produce an annual "audit report" on capability and investment to be extracted from this report - will be used to inform future Forums<br><br>• Identification of peer-reviewed publications arising from reported RD&E |
| *Broad methodology / methodological considerations?* | • Resourced administration of the register to update register and/or prompt for updates<br><br>• Reporting should coincide with annual planning of projects<br><br>• Function of the Strategy secretariat<br><br>• Need to attempt to populate retrospectively for last 5 years |
| *Timelines?* | • Project brief to be developed by Sept 30 2013<br><br>• Funding decision by Steering Committee by October 31 2013<br><br>• Deliver by June 30 2014 then annually with reports in January each year |
| *Potential collaborators?* | All RDCs, State Depts, providers (core and non-core) |
| *Potential investors?* | All RDCs, State Depts. (In-kind may be hosting the database/register) |
| *Indicative resources required?* | Up to $25k to establish the register and populate (2013-14)<br>$10k pa thereafter to maintain |

**Plenary session – feedback**

- Seen as a core part of the Strategy
- Collecting information re quality and capability might be out of the scope of the project but could inform any future work to assess capability etc
- Work in developmental stage may not be shared due to commercial or competitive constraints
- Essential that updating takes place otherwise the work will be irrelevant
- Strong driver required to obtain information for updates.
- Important to gather information on non-livestock AW RD&E as may be useful to the livestock sector


## Session 5    Next steps

Jackie South (DAFF)


1. Forum report will be circulated to Forum attendees and stakeholders.
2. Attendees will be encouraged to give feedback to the Committee on the Forum - what worked, what didn't and recommendations for next year
3. Steering Committee meeting on 29 August will consider outcomes of the Forum and feedback will be given to attendees and stakeholders

## Forum Participants

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