PIX-AMC Conference 2018

Animal Welfare Panel June 5th

Malcolm Mitchell

Leading the way in Agriculture and Rural Research, Education and Consulting
Introduction

- Professor Malcolm Mitchell
  - Physiologist, Medical Science, Veterinary Science, Animal Science, Researcher
  - PRC, IGAP, IAPGR, Roslin Institute, SAC/SRUC
Introduction

• Multi-disciplinary research
  – Physiology, Engineering, Environmental Science, Physics, Animal and Veterinary Science, Behaviour, Biochemistry, Chemistry, Modelling

• Many long term collaborations
  – Research teams
  – Network of collaborators in UK, Europe, North America, South Africa
Introduction

• Main areas of research

  – Animal transport
  – Animal handling and slaughter
  – Animal welfare assessment
  – Animal – environment interactions
    • HEAT STRESS
    • COLD STRESS
  – Stress, welfare and animal adaptations
  – Stress response modelling
  – Stress and pathology – “stress induced myopathy”
Introduction

• Main areas of research
  – Poultry
  – Cattle
  – Pigs
  – Sheep
  – Horses
  – Fish
  – Exotics (ostrich / alpacas)
Introduction

• All the research activities have been undertaken in close collaboration with:-
  – Industry / stakeholders
  – Policy makers
  – Competent Authorities
  – European Union
    • EFSA
    • DG SANTE
    • FVE
  – FVO
  – NGO’s
  – Processors / Retailers / Professional industry groups
Purpose and role of animal science:-

- Provide the sound scientific basis for improved:
  - Legislation and regulation
  - Practices and procedures
  - Guides to Best Practice
  - Equipment and technology
  - Training and Education
Animal Welfare

1. Freedom from thirst, hunger and malnutrition by ready access to fresh water and a diet to maintain full health and vigour.

2. Freedom from discomfort by providing a suitable environment, including shelter and a comfortable resting area.

3. Freedom from pain, injury, and disease by prevention or rapid diagnosis and treatment.

4. Freedom to express normal behaviour by providing sufficient space, proper facilities, and company of the animal’s own kind.

5. Freedom from fear and distress by ensuring conditions that avoid mental suffering.

(Farm Animal Welfare Council 1979)
Animal Welfare

Farm Animal Welfare in Great Britain:
Past, Present and Future

October 2009

SRUC
Animal Welfare

Animal welfare is:-

‘An ethical concern for the mental and physical well-being of animals under our care’
Animal Welfare and Policy

• So we have a commitment to sound animal welfare policy and legislation

• We express ambitions and purpose for policy and its improvement!

• We assert that science (research) provides the fundamental basis and structure?

• We therefore are basing policy and legislation on “EVIDENCE”
Evidence and Animal Welfare

• What is evidence?

• Evidence and animal welfare

• Some considered perspectives – use and sources of evidence

• Evidence, policy and regulation
Scientific Evidence

Professional Experience & Expertise

Political Judgement

Resources

Values

Habits & Tradition

Lobbyists & Pressure Groups

Pragmatics & Contingencies
What is evidence?

• Evidence must be:-
  – Objective
  – Valid
  – Reliable
  – Systematic (collected according to rigorous design)
  – Refereed
Recent Contributions

• Network document on the Welfare of Poultry during Transport (2016) (10 annexes)

• Guides to Good Practice for the Transport of Livestock (2018) 5 species Guides, 17 Fact Sheets and 5 instructional videos

• (http://www.animaltransportguides.eu/).
The European Union did not want extra rules; suggested way forward was:

- To **better implement** the existing rules
- To **better enforce** the existing rules
- To **advise (guide)** as to how it can be done better
Good practices: procedures and processes that ensure compliance with requirements of legislation

Best Practices: providing additional guidance which exceeds any legally defined minimum welfare requirements
Operational definitions and objectives

• Best (Better) Practice is what we aspire to but Good Practice is what we work with every day – today we do this activity this way but tomorrow we will adapt it to a new Good Practice on our way to a Best Practice
The Guides
## Guides to good practices for Animal Transport

<table>
<thead>
<tr>
<th>Species</th>
<th>Total Number of Recommendations for Practice</th>
<th>Good Practices</th>
<th>Better Practices</th>
<th>% Better Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>317</td>
<td>211</td>
<td>106</td>
<td>33</td>
</tr>
<tr>
<td>Pigs</td>
<td>222</td>
<td>143</td>
<td>79</td>
<td>35</td>
</tr>
<tr>
<td>Horses</td>
<td>240</td>
<td>139</td>
<td>101</td>
<td>42</td>
</tr>
<tr>
<td>Sheep</td>
<td>301</td>
<td>191</td>
<td>110</td>
<td>37</td>
</tr>
<tr>
<td>Poultry</td>
<td>160</td>
<td>98</td>
<td>62</td>
<td>39</td>
</tr>
<tr>
<td>Average</td>
<td>248</td>
<td>156</td>
<td>92</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>1488</td>
<td>938</td>
<td>550</td>
<td>37</td>
</tr>
</tbody>
</table>
Good and better practices in cattle transport

www.animaltransportguides.eu
• Disseminate our Guides and Fact Sheets to reach as many veterinarians, transporters, animal handlers, owners, farmers, NGOs, policy makers and competent authorities as possible
Global problems and risks

Welfare and climate change

• Welfare is now a key component of the system and future production and marketing

• Must be factored in to holistic strategies and adaptations
Costs of Adaptations

Broiler Production

- Animal Welfare
- Ventilation
- Energy / Water
- Litter
- Disease risk
- Labour
- Emissions
- Carbon Footprint
- Emissions
- Costs of Adaptations
Thank you for your attention!
Animal Transport and Welfare

- Only the wisest and stupidest of men never change. – Confucius (Chinese Philosopher, 551-479 BCE)

- The only way to make sense out of change is to plunge into it, move with it, and join the dance. – Alan Watts – (English Philosopher, 1915-1973)