

Public attitudes research

Professor Grahame Coleman, (University of Melbourne), has been successful in attracting funding under the auspices of the National Animal Welfare RD&E Strategy to carry out research on public attitudes to animal welfare.

The one year project "Monitoring public attitudes to inform animal welfare policy development", (funded by Australian Meat Processor Corporation, Australian Pork Limited, Australian Wool Innovation and the Australian Animal Welfare Strategy - AAWS, through the Department of Agriculture, Fisheries and Forestry), will develop a community attitudes survey that will enable exploration and ongoing monitoring of public knowledge of livestock practices and of the impact of livestock farming, on animal welfare, health and behavior.

The public's value and attitude shifts towards livestock animals and how or whether these translate into behaviour and the existence and role of opinion leaders in disseminating welfare information in the community will also be investigated.

This project will form the basis for regular monitoring of the community's attitudes towards animal welfare and collaborators in the project are Assoc. Prof. Dominique Blache (University of Western Australia) and Dr. Samia Toukhsati (Hon Research Fellow, The Ohio State University).



ISAE Conference 2013

Dr Jean Loup Rault and University of Melbourne PhD students Megan Verdon and Sally Sherwen have recently returned from Florianopolis, Brazil after attending the 47th Congress of the International Society of Applied Ethology conference - 'Applied Ethology: understanding behaviour to improve livelihood'.

They met with renowned welfare researchers from around the world and discussed the latest research happening in the field. Megan presented her work on aggression in group housed sows, 'Group-housed sows who engage in aggression after mixing have reduced injuries and gain more weight' and Sally presented her study on the effect of visitors on zoo meerkats, 'A multi-zoo study on the effect of manipulated visitor behaviour on zoo meerkats'.



Sally and Megan

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Jean-Loup was successful in being elected Secretary of ISAE from 2013 - 2017.

But it wasn't all work and no play, there was also some spare time to explore the beautiful beaches of Florianopolis and of course sample the famous Brazilian cocktail, Caipirinha.

While over in that wildlife hotspot of the world, Megan and Sally put their animal behaviour skills to the test and spent some time trekking the swamplands of the Pantanal in search of the elusive white-lipped peccary. They volunteered with field researchers from the Wildlife Conservation Society of Brazil, helping collect data on peccary movement patterns, home range size and food preferences. Along the way they had some brilliant wildlife viewing of Brazilian Tapir, Giant anteaters, Mountain Lions, capuchin monkeys and the famous capybara.

Megan's research is supported by the CRC for High Integrity Australian Pork and Sally's work is supported by Zoos Victoria and the Australian Animal Welfare Strategy.



Sally and friend



ProHand® Dairy Cows delivered by NCDEA

Following on from "train the trainer" sessions delivered by staff from the AWSC, The National Centre for Dairy Education Australia has commenced delivery of ProHand® Dairy Cows training.

Training has been conducted by Nathan Cox of TasTAFE at the Tasmanian Institute of Agriculture in Burnie and by Beate Barnes of NCDEA Northern Victoria at a property near Nurmurkah.

The feedback from trainees was excellent, with participants particularly enjoying the content and ease of navigation through the program and the stimulating discussion generated by the session 2 review.

Further ProHand® training will be delivered as part of TasTAFE pre-employment programs and ProHand® has been scheduled for inclusion by a large dairying company on their training schedule for the remainder of 2013.

Currently, ProHand® Dairy has been conducted in Victoria, Tasmania, South Australia and Western Australia and a total of 103 trainees have undertaken the program.

The roll-out of ProHand® Dairy Cows has been supported by Dairy Australia's large herd program.

ProHand® Dairy cows featured in a recent edition of the Age educational supplement and the article can be accessed here

<http://www.theage.com.au/national/education/voice/a-winwin-for-animal-welfare-20130510-2jbjk.html>

The NCDEA is the industry's own provider of education and training



NATIONAL CENTRE FOR DAIRY EDUCATION - AUSTRALIA

ProHand A training program targeting the attitudes and behaviours of stockpeople

What is ProHand Dairy Cows?

Training of stockpeople as professional managers of animals has, in the past, been largely ignored. In recognition of the vital role that stockpeople play in the overall productivity, welfare, and health of the livestock under their care, Dairy Australia and the Animal Welfare Science Centre (AWSC), has developed ProHand.

ProHand delivers key findings from extensive research conducted in the livestock industries and research laboratories in Australia, on factors that affect the productivity and welfare of farm animals.

This proven training program has been designed and tested on actual stockpeople at commercial farms in Australia and around the world.

This training program:

- Improves the quality of human-animal interactions (minimises handling stress)
- Improves animal performance and welfare and
- Improves stockperson work motivation and performance, and job satisfaction.

Objectives of ProHand Dairy Cows

- Develop an understanding of the impact of the interactions between stockpeople and farm animals on farm animal behaviour, welfare, and productivity.
- Outline why farm animals become fearful of humans and how this fear can markedly affect animal productivity and welfare.
- Identify appropriate and inappropriate behaviours of stockpeople towards farm animals and how to recognise fear responses in farm animals.
- Allows stockpeople to compare their attitudes with others in the industry and provides individually tailored feedback on opportunities to improve handling.
- Provide Professional Handling Guidelines, which are designed to maximise animal productivity and welfare, as well as to ensure that farm animals are easy to handle and to move.
- Provide material to aid acceptance and retention of the ProHand message.

Structure of ProHand Dairy Cows

A small group of stockpeople are trained together. The program is divided into two days, which are run about a month apart. The first day consists of two, three hour sessions, while the second day has one three hour session.

Benefits of ProHand Dairy Cows

- Minimise animal handling stress and improve animal productivity and welfare and
- Improved stockperson job satisfaction, work ethic and motivation to learn.



ProHand
Dairy Cows

Potential for 5% increase in milk yield without additional capital investment.



Publications - 2013

Refereed journal

Edwards, L.E., Coleman, G.J. and Hemsworth, P.H. (2013). Close human presence reduces avoidance behaviour in commercial caged laying hens to an approaching human. *Animal Production Science*. Available online <http://dx.doi.org/10.1071/AN12342>

Fisher, A.D., Giraud, A., Martin, P.A.J. and Paton, M.W. (2013). The use of quantitative risk assessment to assess lifetime welfare outcomes for breech strike and mulesing management options in Merino sheep. *Animal Welfare*, 22: pp275-275.

Fraser, D., Duncan, I.J.H., Edwards, S.A., Grandin, T., Gregory, N.G., Guyonnet, V., Hemsworth, P.H., Huertas, S.M., Huzzey, J.M., Mellor, D.J., Mench, J.A., Špinka, M. and Whay, H.R. (2013). General Principles for the welfare of animals in production systems: The underlying science and its application. *The Veterinary Journal*. (in press).

Hemsworth, P.H., Rice, M., Nash, J., Giri, K., Tilbrook, A.J. and Morrison, R.S. (2013). Effects of group size and floor space allowance on grouped sows: aggression, stress, skin injuries and reproductive performance. *Journal of Animal Science*. (in press).

Jongman, E.C. and Butler, K.L. (2013). Ease of moving young calves at different ages. *Australian Veterinary Journal*. 91 (3), pp 94-98.

Lee, C., Fisher, A.D., Colditz, I.G., Lea, J.M. and Ferguson, D.M. (2013). Preference of beef cattle for feedlot or pasture environments. *Applied Animal Behaviour Science*, 145, pp53-59.

Kerswell, K.J., Bennett, P., Butler, K.L. and Hemsworth, P.H. (2013). Self-reported comprehension ratings of dog behaviour by owners of adult dogs. *Anthrozoos*, 26 (1), pp 5-11.

McGregor, B.A. and Butler, K.L. (2013). Eruption of first permanent incisors and live weight gain in grazing yearling Angora goats. *Australian Veterinary Journal*, 91, 179-184.

Paton, M.W., Martin, P.A.J. and Fisher, A.D. (2013). Risk assessment principles in evaluation of animal welfare. *Animal Welfare*, 22: pp277-285.

Pempek, J.A., M. L. Eastridge, N. A. Botheras, C. C. Croney, and W. S. Bowen Yoho. (2013). Effects of alternative housing and feeding systems on the behavior and performance of dairy heifer calves. *Professional Animal Scientist* 29:278-288.

Pighin, D.G., Brown, W., Ferguson, D.M., Fisher, A.D. and Warner, R.D. (2013). Relationship between changes in core body temperature in lambs and post-slaughter muscle glycogen content and dark-cutting. *Animal Production Science*. Available online <http://dx.doi.org/10.1071/AN12379>

Rault, J.L., Carter, C.S., Garner, J.L., Marchant-Forde, J.N., Richert, B.T. and Lay Jr., D.C. (2013). Repeated intranasal oxytocin administration in early life dysregulates the HPA axis and alters social behaviour. *Physiology and Behaviour*. Available online DOI 10.1016/j-physbeh.2013.02.007

Refereed conference

Lay, D.C. jr., Rault, J-L., McMunn, K.A. and Marchant-Forde, J.N. (2013). A search for humane gas alternatives to carbon dioxide for euthanizing piglets: a piglet perspective. *Proceedings of 47th Congress of the International Society of Applied Ethology*, 2 June - 6 June 2013, Florianopolis, Brazil. P108.

Hartcher, K.M., Tran, K.T.N., Wilkinson, S.J., Hemsworth, P.H. and Cronin, G. (2013). Effect of rearing conditions on the development of feather-pecking behaviours in free-range laying hens. *Proceedings, Australian Poultry Science Symposium 24*, pp. 192-195.

Rault, J-L., Van de Wouw, A. and Hemsworth, P.H. (2013). Fly the coop! Vertical structures influence the distribution and behaviour of laying hens in an outdoor range. *Proceedings, Australian Poultry Science Symposium 24*, p. 247.

Sherwen, S., Magrath, M., Butler, K., Kerswell, K. and Hemsworth, P.H. (2013). A multi-zoo study on the effect of manipulated visitor behaviour on zoo meerkats. *Proceedings of 47th Congress of the International Society of Applied Ethology*, 2 June - 6 June 2013, Florianopolis, Brazil. P52.

Verdon, M., Morrison, R., Rice, M. and Hemsworth, P.H. (2013). Group-housed sows who engage in aggression after mixing have reduced injuries and gain more weight. *Proceedings of 47th Congress of the International Society of Applied Ethology*, 2 June - 6 June 2013, Florianopolis, Brazil. P68.

Theses

Ralph, C.R. (2013) Circulating plasma glucocorticoid concentrations did not consistently predict intracellular glucocorticoid concentrations or their effect on glucose metabolism in the pig (*Sus scrofa*) or the laying hen (*Gallus gallus domesticus*). The University of Melbourne.

ProHand® Pigs in US

Today in the United States there are more pigs being raised under contract production than ever. In a study completed by the USDA, it was reported that the total number of hogs raised under contract increased from five percent in 1992 to 67 percent in 2004 (USDA). However, little information is known about contract producers with regard to their attitudes, behaviours, gender, or previous swine production experience, to name a few characteristics.

Sara Crawford has recently completed her PhD at The Ohio State University which aimed to assess baseline stockperson/contract grower beliefs and attitudes toward grower-finisher pigs and assess the subsequent behaviours toward pigs as they influence pig fear responses, and to assess the efficacy of ProHand® Pigs stockperson training in modifying existing attitudes, beliefs and behaviours of stockperson toward pigs, with the ultimate goal of developing a version directed toward contract grower-finisher production settings. Sarah's PhD dissertation can be found online at

https://etd.ohiolink.edu/ap:10:0::NO:10:P10_ACCESSION_NUM:osu1325216784



Sara Crawford

Success for students

PhD student Jo Coombe (supervised by Andrew Fisher, University of Melbourne Faculty of Vet Sci) is studying the effects of flexible feeding systems on the health and welfare of dairy cows.

At the recent Dairy Research Foundation Symposium at the University of Sydney, Jo won the Emerging Dairy Scientist Competition.

Jo is pictured receiving her prize from Phillip Howard of Howard-Australia



The John and Jenny Barnett Memorial Prize has been established by family and friends of John and Jenny Barnett and is awarded annually to a student undertaking a project in animal welfare at the University of Melbourne.

This year's winner was Trista Harvey who received her prize from Jenny's brother Jim Forse at the recent Dean's Honours and Awards Presentation.

Trista's project will investigate the relationships between human attitudes to enclosure design and the welfare of capuchin monkeys in ZOOS.



L-R, Paul Hemsworth, Elizabeth Forse, Trista Harvey, Jim Forse

The University of Sydney John Barnett Memorial Prize for the best animal welfare science essay is presented annually to a third year student in the Bachelor of Animal and Veterinary Bioscience Degree, Faculty of Veterinary Science, The University of Sydney.

This year's winner, Naomi Bernecic (pictured on the right) wrote a thoughtful essay on improvements in the welfare of Atlantic salmon in aquaculture systems through advances in husbandry practices



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