

## **Targeting human-animal interactions to improve animal welfare and productivity**

**P. H. Hemsworth**

Animal Welfare Science Centre, University of Melbourne and Department of Primary Industries, Werribee, Vic. 3030, Australia

Research in a number of livestock industries has shown that interactions between stockpeople and their animals can limit the welfare and productivity of the animals. While these interactions may appear harmless to the animals, this research has shown that the frequent use of some of these routine behaviours by stockpeople can result in farm animals becoming highly fearful of humans. It is these high fear levels, through stress, that appear to limit animal welfare and productivity. This research has also shown that one of the antecedents of stockperson behaviour is the attitude of the stockperson towards interacting with his or her animals. Intervention studies in the dairy and pig industries have shown the potential of cognitive-behavioural intervention techniques designed to specifically target these key attitudes and behaviours of stockpeople that have a direct effect on animal fear, productivity and welfare (Coleman et al., 1999; Hemsworth et al., 1994, 2002).

As a result of this extensive research, training programs using a cognitive-behavioural technique have been developed and introduced in the pig industry in Australia, NZ and the USA (ProHand) and recently in the Australian dairy industry (CowCare) to improve the attitudes and behaviour of stockpeople. Furthermore, a similar training program for pig stockpeople at abattoirs (ProHand Abattoir) has been recently released in Australia.

It should be recognised however that achieving change in the manner in which stockpeople handle their animals is not normal knowledge transfer and involves techniques quite different from those used in the classroom. It involves not only imparting knowledge and skills, but involves changing established habits, altering well-established attitudes and beliefs, targeting denial and offence in the stockpeople and preparing the stockpeople to handle reactions from both pigs and other people towards the individual following change.

The role of the animal handler in determining animal welfare and productivity has generally been neglected in the livestock industries. This recent research has shown that the role and impact of the animal handler on the animal should not be underestimated. To do so will seriously risk the welfare (and productivity) of our livestock. It is likely that in the near future both the livestock industries and the general community will place an increasing emphasis on ensuring the competency of the animal handlers that manage livestock.

The success of the cognitive-behavioural technique in improving the attitudes and behaviour of stockpeople in the pig and dairy industry and at abattoirs clearly demonstrates the potential for similar training in other livestock industries and in other situations post-farm gate.

Recent developments overseas and recent trends in Australia indicate that Governments and/or food retailers in the near future will require the incorporation of welfare audit documentation into a quality assurance program for the handling and management of livestock at Australian abattoirs and perhaps in other situations post-fram gate and also on-farm. Thus to be effective in the long term, a welfare QA program for livestock will require the introduction of an appropriate training program that is designed to achieve sustained improvements in the attitude and behaviour of stockpeople. The results of these studies (Coleman et al., 1999; Hemsworth et al., 1994, 2002) both in commercial farms and at abattoirs indicate that cognitive-behavioural interventions that successfully target the key attitudes and behaviour of animal handlers that regulate the animal's fear of humans, offer the industry good opportunities to improve the welfare of their animals. Such improvements may also reduce limitations on productivity such as growth, reproduction and meat quality that arise from poor handling.

### References

- Coleman, G.J., Hemsworth, P.H., Hay, M. and Cox, M., 1999. Modifying stockperson attitudes and behaviour towards pigs at a large commercial farm. *Appl. Anim. Behav. Sci.*, 66, 11-20.
- Coleman, G. J., McGregor, M., Hemsworth, P. H., Boyce, J., and Dowling, S., 2003. The relationship between beliefs, attitudes and observed behaviours of abattoir personnel in the pig industry. . *Appl. Anim. Behav. Sci.*, 82, 189-200.
- Hemsworth, P.H., Barnett, J.L., Hofmeyr, C., Coleman, G.J., Dowling, S. and Boyce, J., 2002. The effects of fear of humans and pre-slaughter handling on the meat quality of pigs. *Aust. J Agric. Res.* 53, 1-9.
- Hemsworth, P.H., Coleman, G.J. and Barnett, J.L., 1994. Improving the attitude and behaviour of stockpersons towards pigs and the consequences on the behaviour and reproductive performance of commercial pigs. *Appl. Anim. Behav. Sci.*, 39, 349-362.
- Hemsworth, P.H., Coleman, G.J., Barnett, J.L., Borg, S. and Dowling, S., 2002. The effects of cognitive behavioral intervention on the attitude and behavior of stockpersons and the behavior and productivity of commercial dairy cows. *J Anim Sci.*, 80, 68-78.