

# Reducing stress in farm animals by improved human-animal relationships



Farmers have high levels of experience and expertise. Nevertheless, there is widespread recognition that animals' agitation and fear responses during handling vary markedly between farms.

Several studies, particularly in Australia on pigs and dairy cattle, clearly show that this variation is largely determined by the behaviour of the stockpersons, which normally reflects their beliefs, attitudes and skills. They also confirm that fear and distress caused by human contact can damage the animals' productivity, growth rate, health, and welfare. Positive changes to the farmers' behaviour and attitudes can enhance the animals' quality of life by improving the human-animal relationship (HAR). An effective training methodology needs careful consideration and construction. Welfare Quality<sup>®</sup> set out to build a training package that was tailored to European production systems and practices.

## Minimising Handling Stress

### Dairy cows

Farmers from both small family concerns and large ones with many employees mostly agreed that regular contact and gentle, patient handling is important but several farmers displayed some negative behaviour in particular situations. Catching and treating cows was viewed as difficult by 35% - 70% of farmers. These farmers showed large variation in the frequency of close contact with their animals and this was clearly associated with differences in the way the cows reacted to them. The researchers were able to show that despite increasing herd size and time constraints, opportunities for regular gentle handling do exist and must remain a priority throughout the cow's lifespan. This increases dairy cows' confidence and their ease of handling and it is especially important for young calves and dried off cows.

### Beef suckler herds

Beef suckler cows receive less frequent handling but farmers were generally positive towards their animals. However, 27% reported handling difficulties and animals'

reactions to handling varied strongly across farms with a range of 20% - 80% of calves remaining calm during weighing. More positive farmer attitudes towards their cattle were associated with lower fear in the animals during handling, reduced cortisol levels in fattening bulls after transport, and improved meat pH.

Interestingly, the dam's behaviour seems to exert an important influence on the calf's responses to a gentle handling regime; the beneficial effects were only retained in calves that had a docile dam. This finding reflects a learning process, and it should certainly be acknowledged in attempts to improve the human-animal relationship in beef cattle, and possibly other species.

### Laying hens

Relatively few on-farm surveys have been performed on the HAR in laying hens or broiler chickens. We confirmed that hens' reactions to humans varied markedly, ranging from flocks where almost no hens approached or could be touched by the experimenter to farms where the birds were easily touched. We also showed the

This research was executed within the third Subproject of Welfare Quality®, which focuses on the development of practical strategies to improve farm animal welfare.

Research topics are:

- Improving human-animal relationships
- Genetic solutions to welfare problems
- Eliminating injurious behaviours
- Reducing lameness in cattle and broilers
- Minimizing neonatal mortality in pigs
- Alleviating social stress in pigs and cattle

Subproject leader is Dr Xavier Manteca, [xavier.manteca@uab.es](mailto:xavier.manteca@uab.es)

importance of positive attitudes to the birds and we confirmed previous observations that maintaining regular calm contact with them reduced fear and benefited the HAR and the chickens' welfare. This should be possible to some degree in both small farms and large modern production systems. There was also some evidence that regular human contact was associated with better plumage condition, perhaps because of reduced feather pecking.

### Pigs

Only limited variation in farmer practices towards their pigs were observed. However, there was wide variation in the propensity of pigs to contact non-familiar humans. Moving piglets did not cause problems for the farmers. However, many farmers admit that they do not support pigs when lifting them by their hind legs, so the handling can be rather rough. Relationships were seen between the way farmers think about animals, their working practices on farm and the animals' behaviour. For example, when handlers approached their pigs in an unhurried, quiet manner the animals responded better to restraint and were calmer after release. So, there is considerable scope for improving farmers' attitudes and behaviour and thereby for reducing handling stress in pigs.

### Improving human-animal relationship

Large variations in farmers' attitudes and

handling practices were apparent in all the species studied. These variations were clearly related to handling stress; this was reduced if the animals had received regular, gentle human contact. We recommend that stockpersons should receive regular and compulsory training.

In collaboration with Australian researchers, Welfare Quality® developed a multi-media training package designed to help farmers improve their human-animal relationships. It uses a cognitive behavioural approach to target farmer attitudes and habits that were previously thought difficult to change. Based on existing science and present research, this "Quality Handling" program describes:

- How animals' fear responses to people vary between farms
- How fear of humans can affect productivity and ease of handling
- How animals perceive their environment,
- How to build a positive human-animal relationship
- How to improve and maintain handlers' attitudes and behaviour when they return to the farm.

The Quality Handling program will be available for the cattle industry in English, French and German, and for the pig and laying hen industry in English and Dutch.

### More information:

Xavier Boivin, [xavier@clermont.inra.fr](mailto:xavier@clermont.inra.fr)



### Project Coordinator

Prof. Dr Harry J. Blokhuis, The Netherlands  
[harry.blokhuis@hnh.slu.se](mailto:harry.blokhuis@hnh.slu.se)

### Project Office Welfare Quality®

Animal Sciences Group of Wageningen UR  
Postbox 65, 8200 AB Lelystad  
The Netherlands  
Phone: +31 320 293503  
Fax: +31 320 238050  
e-mail [info@welfarequality.net](mailto:info@welfarequality.net)

[www.welfarequality.net](http://www.welfarequality.net)

Welfare Quality® is a European research project focusing on the integration of animal welfare in the food quality chain. The project aims to accommodate societal concerns and market demands, to develop reliable on-farm monitoring systems, product information systems, and practical species-specific strategies to improve farm animal welfare. Forty-four institutes and universities, representing thirteen European countries and four Latin American countries, participate in this integrated research project.

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