

# Ecosystem Health and Sustainable Agriculture

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# Sustainable Agriculture

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# Monitoring Animal Welfare at Slaughterhouses

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It is often debated whether official control of animal welfare should focus on prevention of suffering, based on minimum requirements related to housing and management, or whether it is better to focus on the outcome, i.e. trying to determine if there are any signs of suffering by evaluating the status of the animals. In most cases scientists, veterinarians and animal welfare inspectors would agree that a combination of the ‘input’ based approach and the ‘outcome’ based approach would be necessary to safeguard animal welfare. Does this apply also to the slaughterhouse situation?

## A Slaughterhouse is Not Just Another Farm

Monitoring animal welfare at a slaughterhouse is somewhat different to the situation on the farm. The throughput numbers can be very high, and there is no possibility to know the individual history, background or habits of each animal. The animals are unfamiliar to the staff, and the staff are unfamiliar to the animals. There are obvious time constraints and the environment is of course completely novel to the animals, with lairage areas not nec-

essarily designed to minimise noise or visual distraction. Furthermore, most animals will be unknown to each other even if they may be delivered in groups or batches, and it is not rare to see mixing of completely unfamiliar animals. All in all, the risks of stress are high, even though the duration of the stay at the abattoir is normally short.

If monitoring of animal welfare is to be carried out at abattoirs, tailor-made protocols for this specific purpose will be required. Such protocols have, for example, recently been developed within the Welfare Quality project (Sandström et al., 2008).

## Design to Facilitate the Handling of Live Animals at Slaughterhouses

Sub-optimal handling of animals can unfortunately be seen at many slaughterhouses, where animals are coerced in a rough manner, using sticks or prods and loud voices to make the animals move fast enough in the direction desired. Within the European Union the use of electric prods is limited by legislation (93/119/EC), but nevertheless the use of such equipment is frequent in some Member States. This will inevitably result in poor animal welfare. By de-

signing unloading areas, lairage pens and passageways in a way that makes it possible to use the animals' natural exploratory behaviour when moving them forward, the need for coercion can be minimised. For example, our commonly slaughtered species are all flock animals, and it is therefore quite difficult to move one single animal away from the flock. By keeping a small group of animals intact as long as possible, i.e. up to the entrance of the stun box or even into the stunner – depending on stunning method – the entire process will become much smoother for both animals and staff, compared with when individual animals are singled out at an early stage.

By minimising noise from metal gates and other equipment, using solid wall passageways to prevent visual distraction, avoiding sharp bends, dazzling light or sudden reflexes, a more calm and steady flow of animals can be achieved (Grandin, 2006).

### Training of Staff

Layout and design is crucial, but the knowledge and training of staff is just as essential (Grandin, 2006; Wotton and Wittington, 2008). Well-designed basic construction will give the staff possibilities to do a good job, but proper training and instructions are also necessary. This should include knowledge about normal animal behaviour for all species concerned, how the flight zone works and how it can be used to move animals forward without violent coercion, how to identify and handle injured or sick animals in the lairage area or passageways, and also knowledge about how rough handling will affect animal welfare and product quality. Avoiding stress or bruising is in the interest of the food business operator, to keep downgradings and rejections to a minimum and meat quality traits optimal, apart from the obvious animal welfare aspects.

### Operator Responsibility and Monitoring Systems

Whose responsibility is it to safeguard animal welfare at slaughterhouses? Basically, it is always the operator who

is responsible for complying with all types of legislation in the field, both in designing and in managing the facilities and the equipment. The operator should ensure that all staff members handling live animals, from unloading to the point when bleeding is completed and the animal is dead, have the necessary knowledge and training. There have to be clear instructions and guidelines to staff, and preferably standard operating procedures (SOP). Such SOPs will be requested in the future in accordance with the upcoming EU regulation (EC No 1099/2009). There should, for example, be no doubt about the maximum number of animals allowed per pen for animals waiting for a few hours or kept overnight in lairage. Technical equipment, such as stunning equipment or restraint devices, should be accompanied by clear instructions for proper use from the manufacturer. Written and oral information must, of course, be given in a language which can be understood by the staff involved.

The management level at each slaughterhouse has to develop a system for quality control, to be able to guarantee that animal welfare legislation is not violated during the daily work at the abattoir. One aid in this work is the use of different types of standard operating procedures; another is the use of lists for signing when a task has been carried out according to instructions. For example, it is advisable to let the person performing the daily cleaning, maintenance and function control of the stunning equipment put his or her signature on a sheet of paper, where the management can then easily verify that these tasks have been carried out according to the set procedure at set intervals. Such a system also helps in making it clear where the responsibility lies and trace-back in the case of failure. By having a third party auditor verifying the accuracy of this type of documentation, credibility towards both authorities and customers can be even further improved.

In several countries it is already common to have one person, employed by the operator, appointed to be in charge of animal welfare issues at the slaughterhouse. This is important in order to make it easy for staff to know whom to contact in the case of problems or questions, and this person will then have a unique overview of the implementation of legislation and procedures in the slaughterhouse. However, it is crucial that this person has the required technical expertise, is knowledgeable about

animal behaviour and health and is well informed about current legislation. He or she must also be authorised to demand immediate action or to intervene if animals are being handled in an unacceptable way. Such a person is often referred to as an ‘animal welfare officer’. This term is slightly misleading, however, as this is not a government official but an employee of the slaughterhouse operator. In the upcoming EU regulation on animal welfare at the time of killing (including slaughter), designating such a person will be a requirement for larger slaughterhouses (EC No 1099/2009). However, also for smaller enterprises it can certainly be useful to ensure that one person is clearly given the task of monitoring animal welfare.

### **Official Control of Animal Welfare at Slaughterhouses**

Although, as stated above, the responsibility for animal welfare lies with the business operator, animal welfare is seen as an area where the authorities have an obligation to perform official controls to verify compliance with existing legislation. In most countries – especially within the European Union – everyday animal welfare monitoring is carried out by the official veterinarians, who also have other tasks, mainly in the area of food safety (EC No 854/2004). The official veterinarians can inspect all incoming animals to ensure that they are fit for slaughter. If this is not the case, whether for animal welfare or food hygiene reasons, the animal in question should be immediately euthanised and destroyed. Furthermore, the official veterinarian can inspect animals in lairage and live animal handling when moving animals from lairage to the point of stunning. Finally, the official veterinarian can perform regular on-the-spot checks of stunning efficacy and bleeding procedures. He or she can also supervise how the staff are monitoring stun quality and the results of these operator responsibility checks, including actions taken when results have been unsatisfactory.

### **Practical Aspects of Slaughterhouse Audits**

It is inherently difficult to monitor live animal handling at slaughterhouses (Sandström et al., 2008). Although the buildings should be constructed to facilitate supervision, this is rarely the case. Space is restricted; it is difficult to find somewhere to stand to get a good overview without disturbing the flow of animals, standing where it is meaningful can be dangerous, and so on. Furthermore, people who know that they are being watched can easily change their behaviour, sometimes because they know that what they normally do is not quite acceptable but sometimes just through becoming nervous. It can be foreseen that in the future video surveillance cameras (CCTV) will be used to a much larger extent than today, to monitor the handling of animals. Small, well-placed video or web cameras will not disturb the animals or the staff, and can still provide a lot of information about how animals are handled, and can be a useful tool to identify problem areas in the slaughterhouse. While video surveillance can never be a substitute for the physical presence of an auditor – whether an operator-employed animal welfare officer, a third party auditor or an official veterinarian – it can certainly be a useful complement.

### **To Demonstrate Compliance and High Ethical Standards**

In summary: By involving veterinarians and others with animal welfare expertise when designing new abattoir facilities, many problems can be avoided already at the drawing-table. If the design of an already existing slaughterhouse is sub-optimal, this can – but only to some extent – be compensated for by skilled and patient staff with clear guidance from the management. A modern slaughterhouse operator will need to be able to demonstrate not only compliance with minimum legal requirements with respect to animal welfare, but also high ethical standards in general. To do this, both transparent internal monitoring systems and external audits are necessary.

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