

New requirements for training stockmen have also been specified. Any individual who employs or engages persons to attend to pigs must ensure that those persons have received instructions and guidance.

Further reviews of the Directive are due to be held in 2004 and 2008. The first will report on socio-economic and sanitary consequences, environmental effects, and climatic conditions associated with the new Directive. In addition, the effects of space allowances and floor types and techniques and systems of pig production that will reduce the need for castration will be considered. The second report will include findings on tail-biting, stocking densities and farrowing crates.

Council Directive amending Directive 91/630/EEC laying down minimum standards for the protection of pigs (2001). Available at http://europa.eu.int/comm/food/fs/aw/aw_legislation/pigs/prop_en.pdf

The use of genetically modified animals

“The potential benefits of causing genetic modifications are great but so too may be the costs.” Thus opens the chapter on welfare in the recently published Royal Society report on the use of genetically modified animals. In this chapter, the ways in which genetic modification — and the techniques used to cause it — may affect welfare are outlined. It is concluded that: “Although genetic modification is capable of generating welfare problems, in the view of the Royal Society, no qualitative distinction can be made between genetic modification technology and modification produced by artificial chemicals or radiation. Indeed, the targeted character of modern genetic technology may provide fewer welfare problems than older techniques”.

Following a 16-point summary and a brief introduction, the report includes chapters entitled: What is genetic modification?; Techniques for altering genetic make-up; Uses of GM animals; Safety; Welfare; Weighing benefits against burdens; and Conclusions and recommendations. It provides clear and concise overviews of these issues. Although concluding that the development of GM animals has been hugely beneficial in many areas, the report emphasises that continued research on the welfare and use of these animals is essential if uncertainties about welfare and health and safety issues are to be properly addressed.

The Use of Genetically Modified Animals (May 2001). The Royal Society, Policy Document 5/01. Available from Science Advice Section, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, UK; <http://www.royalsoc.ac.uk>. ISBN 0 85403 556 7. 46 pp. A4 paperback.

Motivation in laying hens: studies of perching and dustbathing behaviour

Anna Olsson's doctoral thesis provides information about perching motivation and the effects of social factors on dustbathing motivation in laying hens. The aims of her doctorate were: to study the effect on behaviour of preventing access to perches for night-time roosting; to quantify hens' motivation for night-time perching and how this is affected by social stimuli; to study how social stimuli affect dustbathing motivation; and, to study the motivational background of sham dustbathing.

The study of night-time roosting showed that as soon as the lights were extinguished, birds began to perch; birds tended to perch close together on the top perch and remained there for the entirety of the dark period. It was also found that birds without access to a perch spent significantly less time sitting ($P < 0.05$) and walked more ($P < 0.05$) than those with access to a perch.

Motivation for night-time roosting was measured using a push-door. Hens pushed through significantly heavier doors to gain access to a room containing a perch than to a room that did