## Stimulus response behaviour

This is an excellent video. It is designed to be appropriate for the Science National Curriculum, Key Stage 4, and 'A' level teaching and it provides a very interesting and clear introduction to the stimulus response behaviour of farm animals (and more). The video has six sections: introduction (five steps in the stimulus response chain and how these are studied); stimuli (visual, heat, tactile, olfactory and internal); receptors; co-ordination (types of learned behaviour, habituation, classic conditioning, trial and error learning and observational learning); effectors, and responses (irritation, internal effectors and responses, stress in a non-stimulating environment, enriched environment, stereotyped behaviour, nesting and foraging behaviour), ending with a summary. This is a good, scientifically rigorous story, well-told and portrayed by a glittering cast of piglets, chickens, sheep, goats and cows. There is no moralizing; the animals 'speak' for themselves and the film will be, I suspect, quite a powerful force for animal welfare. An enjoyable piece of work which deserves very wide circulation.

Stimulus Response. The Association for the Study of Animal Behaviour (ASAB) (1996). Colour VHS video, 33 minutes. Obtainable from Michael Dockery, ASAB Education Officer, Department of Biological Sciences, John Dalton Building, Manchester Metropolitan University, Chester Street, Manchester M1 5GD, UK. Price £10 including postage and packing.

## New Zealand codes for the welfare of sheep and laying hens

These Codes of Recommendations are a practical guide for those involved in animal production in New Zealand and are intended to encourage the adoption of the highest standards of animal husbandry. Written by working groups of the New Zealand Animal Welfare Advisory Committee, the Codes are based on the familiar 'five freedoms' and complement the New Zealand legislation by outlining to the informed general public the minimum welfare standards which are currently acceptable.

Code No 3 is a comprehensive revision of the first edition of the Code of Recommendations and Minimum Standards for the Welfare of Sheep published in 1992. It encompasses all aspects of the farm husbandry of sheep but it does not deal with the care of the animals during transportation, at markets or at the slaughterhouse. Sheep in New Zealand are kept outdoors on grassland farming systems and the information and advice largely refer to these extensive conditions. The material in the main body of the Code covers all aspects of husbandry, the minor surgical operations carried out by sheep farmers, disease control and home killing/humane slaughter. There are technical appendices on body condition scoring, on recommended positions for captive bolt stunning, on recommended livestock daily feed requirements and on recommended minimum pasture length and dry matter quantities for sheep production.

There are, of course, facets of the Code which are peculiar to the local situation, eg the Merino mulesing operation and the selection of sheep resistant to facial eczema, but the general thrust of this important and well-informed document will be of considerable interest and value to all those keeping sheep in temperate grassland areas.

Code No 18 is the latest in the same series and covers the housing, transport, feeding, health and welfare, management and humane destruction of laying hens. Again appendices provide specific data (eg a maximum stocking density equivalent to 450cm<sup>2</sup> per bird for those

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