the housing section, recommendations are provided on non-cage, conventional cage and enriched cage systems. There is also a section on animals with access to open runs.

Laying Hens: Code of Practice for the Welfare of Livestock. July 2002. Published by the UK Department of Environment, Food and Rural Affairs. 27 pp A4 paperback. Available from DEFRA Publications, Admail 6000, London SW1A 2XX, UK, and at http://www.defra.gsi.gov.uk/animalh/welfare.

Current status and future prospects for non-animal methods for testing chemicals

On 13 February 2001, the European Commission adopted a paper which sets out proposals for toxicological testing of many substances that came into use prior to 1981 and which have never been subject to the rigorous toxicological testing required of chemicals put on the market since then. Although applying only to substances of which more than one tonne are sold per annum in the EU, it is estimated that implementation of this new policy will result in the need for testing over 30,000 compounds. There has been a great deal of concern about the possible animal welfare consequences of this programme. The Environment Council considered this matter at a meeting on 7 June 2001, and concluded that animal testing should be limited to only that necessary to meet the objectives of a high level of protection for human health and for the environment, that mechanisms should be established to ensure that there is no unnecessary duplication, and that adequate resources should be provided for the development of non-animal alternative methods.

It is envisaged that ECVAM, the European Centre for the Validation of Alternative Methods, will play a major role in validating these alternatives and the organisation has published a review (see details below) summarising the current status of alternative tests and making recommendations for further developments particularly with regard to the need for meeting the EU legislation on chemical testing. This review is published as a supplement to Volume 30 of *Alternatives to Laboratory Animals*. It comprises 12 chapters covering, amongst other topics: background; principles and procedures of validation; the scientific basis of chemical risk assessment; acute lethal toxicity; local toxicity; genotoxicity and carcinogenicity; reproductive toxicity; and endocrine disruption. The summary includes a forecast timetable which indicates the prospects for the completion of the validation of a range of alternative tests in the short, medium- and long-term. It also includes a substantial list of subjects in which further research and development are recommended. This is a timely review that is likely to be helpful to EU and other funding agencies in helping to focus and prioritise funding for alternatives in toxicity testing.

Alternative (Non-animal) Methods for Chemicals Testing: Current Status and Future Prospects. July 2002. A report prepared by ECVAM and the ECVAM Working Group on Chemicals. Edited by Andrew P Worth and Michael Balls. Published by the Fund for Replacement of Animals in Medical Experiments, Russell & Burch House, 96–98 North Sherwood Street, Nottingham, NG1 4EE, UK, for the European Centre for the Validation of Alternative Methods, Ispra, Italy UK. *Alternatives to Laboratory Animals 30*: 1–125 (Suppl 1).

Annual Report 2001 of New Zealand's National Animal Welfare Advisory Committee

The National Animal Welfare Advisory Committee (NAWAC) of New Zealand published its annual report for the year 2001 in May this year. The report contains an overview of the animal welfare infrastructure in New Zealand; it also provides information on the progress made to date in developing codes of welfare. Brief details on the main animal welfare issues considered during the year and a synopsis of research undertaken since the last annual report are presented. Furthermore, there is a short chapter about the NAWAC committee and its functions, and a summary of communications with external individuals/groups. The appendices list published codes of recommendations and minimum standards, other publications and Ministry of Agriculture and Forestry (MAF)-funded animal welfare operational research from 1993 to 2002.

One of the issues that the NAWAC committee considered during 2001 was dubbing, the removal of the comb of male poultry. Consultation took place between NAWAC and interested parties and NAWAC is now working towards a strategy to prevent this practice. Amongst other topics, vertebrate pest control was on NAWAC's agenda in 2001 along with broiler chicken welfare, Kosher slaughter and the use of electric collars and electronic boundary fences.

Research topics undertaken during the year included welfare and mortality of newborn calves in the dairy industry, analgesic best practice for animals used in research and testing, predicting risk conditions for thermal stress during long-distance transport, and trauma in livestock, companion animals and wildlife. A comprehensive review is currently taking place into research topics that need addressing in the future.

The document provides an insight into the aims of NAWAC and how it works to achieve these aims. It also provides useful information about the current state of codes of recommendations and minimum standards and a list of MAF-funded papers that have been published.

National Animal Welfare Advisory Committee 2001 Annual Report. May 2002. Available from the National Animal Welfare Advisory Committee, c/o Ministry of Agriculture and Forestry, P O Box 2526, Wellington, New Zealand. 32 pp A4 paperback.

Survey of supermarkets' farm animal welfare standards

Between July and November 2001, Compassion in World Farming (CIWF) carried out a survey of supermarket standards and performance on farm animal welfare. The results of this survey were recently made available on their website in a document entitled 'Supermarkets and Farm Animal Welfare: Raising the Standards'.

CIWF evaluated the ten leading UK supermarkets on over 100 different measures considered by CIWF to be relevant to animal welfare. According to their survey results, the top five supermarkets in the UK with regard to animal welfare were deemed to be Marks & Spencer, Waitrose, Safeway, Co-operative Group and Tesco. The performance indicators against which the supermarkets were judged included the proportion of free-range and organic produce sold, commitments to reducing animal transportation times, and policies against genetic engineering. However, none of these are direct indices of welfare and it is a weakness of the report that the difficulties of using such indices are not discussed.

The report also highlights a complete range of measures which CIWF believes are vital to improve the welfare of farm animals. These include: the provision of bedding material for all animals; the absence of mutilations such as tail docking, debeaking, tooth clipping or castration; no sourcing of livestock from auction markets; a reduction in journey time to slaughter, and humane slaughter techniques for all animals by use of instantaneous pre-slaughter stunning methods; a written animal welfare policy with targets that are annually reviewed; a main Board or Executive member to be appointed with specific responsibility for animal welfare; and a dedicated animal welfare officer who could facilitate active implementation of the company's animal welfare policy.

By repeating the survey on an annual basis, CIWF aims to track progress and commitment to these standards in order to improve the lives of all farm animals. A rigorous scheme of this sort

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