The Report makes eight key recommendations, and these follow a three-stage hierarchical approach: the first is to give priority to measures to prevent introductions; the second concerns detection of newly introduced invasive non-natives and rapid action to prevent their establishment; and the third stage concerns longer-term mitigation measures such as containment or control of those that have already become established.

The Review Group found that responsibility for this issue is spread across several Government Departments and agencies and considered that this was the greatest constraint to drawing up effective, coherent policies. The first of the key recommendations is that: "The Government should designate or create a single lead co-ordinating organisation to undertake the role of co-ordinating and ensuring consistency of application of non-native species policy across Government."

The second key recommendation is to: "Develop comprehensive, accepted risk assessment procedures to assess the risks posed by non-native species and identifying and prioritising prevention action." The report indicates that the assessment should include cost estimation and cost–benefit analyses to agreed criteria, including economic, biodiversity, social, animal welfare, and animal and human health considerations.

The other recommendations concern development of codes of conduct to prevent introductions, to raise awareness of the issues, to revise relevant legislation, to establish monitoring and surveillance arrangements, to establish policies for control of new or existing problem species, and to engage stakeholders in development of policies.

The remit of the review did not extend to "micro-organisms and other pathogens that cause disease in farmed animals and birds". The reason for this was that "there is a large body of separate legislation to cover these issues". It is unfortunate, however, that infectious agents that cause disease in non-farmed species appear to have received little consideration in this review. These represent no less significant threats to biodiversity and to the welfare of indigenous fauna than those posed by the macroscopic members of the animal kingdom, but there is no large body of separate legislation that covers these threats. The case for there being a single coordinating body with responsibility for tackling invasive non-native species is strong, and there may be a good case for it being concerned with invasive non-native micro-organisms also.

Review of non-native species policy: Report of the working group (March 2003) Published by the Department for the Environment, Food and Rural Affairs. 136 pp A4 (ISBN 0 85521 027 3). Available from DEFRA Publications, Admail 6000, London SW1A 2XX, UK (price £37.00) or free of charge at the DEFRA website: http://www.defra.gov.uk.

National Animal Ethics Advisory Committee of New Zealand's guidance on good practice for the use of animals in research, testing and teaching

New Zealand's Animal Welfare Act 1999 requires that all reasonable steps are taken to ensure the physical health and behavioural needs of animals used in research, testing and teaching. To help promote a humane and responsible approach to animal use in these fields, New Zealand's National Animal Ethics Advisory Council (NAEAC) has recently published a document which aims to set guidelines on 'good practice' in the management of the animals used. The Report covers acquisition of animals, facilities, management of animals in breeding and holding areas, responsibilities of investigators, responsibilities of teachers, and sources of further information.

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Appendices include concepts and definitions of pain, animal technician courses in New Zealand, and use of an animal welfare score sheet.

This guide to good practice will be an essential introduction for all those using animals for scientific purposes and teaching in New Zealand as it makes clear obligations under various pieces of New Zealand's legislation; for example, regarding transport of animals and their acquisition from other countries. It sets out the important ethical principles such as responsibilities of animal care staff and investigators, measures to minimise harm to welfare, and basic requirements for good husbandry, but is, inevitably, extremely brief on the details of 'good practice' in the day-to-day management of animals. For example, the section on food and water goes little beyond stating that animals should "receive appropriate, uncontaminated and nutritionally adequate food according to accepted requirements for the species" and that food "should be in sufficient quantity and of appropriate composition to maintain normal growth of immature animals or normal weight of adult animals and to provide for the requirements of pregnancy or lactation".

In New Zealand, animal ethics committee approval has to be obtained before any animals can be used in teaching at schools or universities. The guidance provided here sets out principles that should, however, be observed wherever animals are used in teaching.

Good Practice Guide for the Use of Animals in Research, Testing and Teaching (September 2002) Published by the National Animal Ethics Advisory Committee, New Zealand. 45 pp A4 (ISBN 0 478 07683 5). Available from the National Animal Ethics Advisory Committee, c/o MAF, PO Box 2526, Wellington, New Zealand.

Code of Recommendations for the welfare of pigs in England

Like the new Code of Recommendations for the welfare of cattle (see pp 411–412), the new code concerning the welfare of pigs, issued under Section 3 of the Agriculture (Miscellaneous Provisions) Act 1968, aims to encourage all those who care for farm animals in England to adopt the highest standards of husbandry.

The Code of Recommendations for the welfare of pigs, which incidentally covers all porcine animals kept for farming purposes including wild boars, is divided into two sections. The first contains recommendations for all pigs under the following headings: stockmanship, health, accommodation, feed, water and other substances, and management. The second section concerns recommendations for specific categories of animals: farrowing sows and piglets, weaners and rearing pigs, dry sows and gilts, boars, and pigs kept in outdoor husbandry systems. Appendices are provided on other DEFRA publications relating to pig welfare and on legislation related to pig welfare.

Like the cattle code, the last edition of the code of recommendations for pigs was published in 1983, so this new edition covers a number of new issues reflecting developments in husbandry and understanding of pigs' welfare needs during the past 20 years, and new legal provisions, notably those under the Welfare of Farmed Animals (England) (Amendment) Regulations 2003. Castration is discouraged: "Stock keepers should consider carefully whether castration is necessary. Castration is a mutilation and should be avoided wherever possible"; and it is recommended that nose ringing be avoided for the same reason. There is a section on environmental enrichment, which includes: "Environmental enrichment provides pigs with the opportunity to root, investigate, chew and play. Straw is an excellent material for environmental enrichment as it can satisfy many of the pigs' behavioural and physical needs. It provides a

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