

24h prior to importation were designed to reduce the risk of the most dangerous. They are aware, however, that further work needs to be undertaken, and call for a fuller assessment of the risks.

Finally, the Group stress that the greatest precaution against the importation of rabies into the UK following a relaxation of quarantine legislation, is to encourage European governments and those of countries bordering the EU to continue or adopt campaigns to vaccinate foxes and eradicate rabies from their territories.

While this report will be warmly greeted by owners looking to holiday with their pets, whether the relaxation of quarantine will necessarily benefit all animals in the UK is open to debate. The Group estimate that, if the quarantine laws are relaxed, about 50 times as many cats and dogs would potentially enter and leave the UK than do so at present. They estimate that close to a quarter of a million UK dogs and cats might be taken abroad annually, and that a further 120 000 might enter the UK from abroad. (This compares with a 1996 total of 7267 cats and dogs entering UK quarantine.) Any increased movement of companion animals must also increase the chances of animals suffering, through transportation in inappropriate conditions over great distances, and/or at the whims of owners uneducated as to their pets' real needs. It can only be hoped that the rigours of certification and the cost, estimated at an initial cost of £150.25 with a recurring annual cost of £60.25, will help to keep numbers down. Similarly, it should help to discourage kind-hearted travellers from adopting and importing large numbers of stray and abandoned animals from holiday resorts, reducing the urgency and pressure for such communities to tackle the problem at source, through more desirable campaigns of control and neutering.

There are other hidden costs. Current *European Pharmacopoeia* standards require that the capacity of a vaccine to induce anti-rabies antibodies is tested on each target species, by submitting 25 vaccinated animals of each species and 10 controls to a challenge with an approved rabies virus strain, at the end of the immunity period claimed by the vaccine producer. Subsequent batches can then be tested on mice. It must be hoped that further work will continue to identify alternative in vitro tests, for this and other vaccines, which will eliminate the need for animals as part of vaccine manufacture.

Quarantine and Rabies: A Reappraisal. Report by the Advisory Group on Quarantine (1998). Ministry of Agriculture, Fisheries and Food: London. 316pp. Paperback. Obtainable from MAFF Publications, Admail 6000, London SW1A 2XX, UK. Price: £15.00.

EU Directive on the protection of farm animals

The Council of Agriculture Ministers agreed a final text for Directive 98/58/EC concerning the protection of animals kept for farming purposes in June 1998, and the Directive was formally adopted in July 1998. This Directive sets minimum standards for welfare of livestock throughout the EU and a framework for adoption of more detailed standards for individual farmed species. It is not uncommon in legislation for the taxonomic range of the species covered to be rather poorly defined and often more inclusive than, one guesses, the legislators had in mind (eg specifying 'bovine animal' when 'domestic cow', rather than any member of the subfamily Bovinae was intended). In this case, it is made clear that the Directive applies only to vertebrate animals kept for farming purposes. However, while Article 3 requires that owners or keepers of any vertebrate animals kept for these purposes '...take all reasonable steps to ensure the welfare of animals under their care and to ensure that those animals are not caused any unnecessary pain, suffering or injury', Article 4 applies only to some vertebrates, thus: 'Member states shall ensure that the conditions under which animals (other than fish, reptiles or amphibians) are bred or kept..., comply with the provisions set out in the Annex.' The provisions in the Annex outline

requirements for staffing, inspection, record-keeping, freedom of movement, buildings, accommodation and mechanical equipment, feed and water, mutilations, and breeding procedures. The final paragraph of the Annex, paragraph 21, appears strikingly sweeping and perhaps a potentially powerful force against the use of strains with high prevalences of production diseases. It states: 'No animal shall be kept for farming purposes unless it can reasonably be expected, on the basis of its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare'. Member states are required to bring the legislation, administrative provisions and sanctions necessary for compliance with the Directive into effect before 31 December 1999.

Council Directive 98/58/EC Concerning the Protection of Animals Kept for Farming Purposes (1998). Official Journal of the European Communities L 221: 23-27. Obtainable from Office for Official Publications of the European Communities, L-2985, Luxembourg.

Welfare of farmed fish

Following the publication in September 1996 of the Farm Animal Welfare Council's (FAWC) report on the welfare of farmed fish, the UK Government consulted interested parties and has now produced a response taking account of these views. This comprises a 4-page overview document with a 17-page Annex which: (i) outlines the points which the Government proposes for inclusion in a welfare code for farmed fish production; and (ii) lists FAWC's recommendations. Two general points are made regarding the way forward. First, since the recently adopted EU Directive on the protection of farm animals (Council Directive 98/58/EC) does not include any requirements which deal in detail with the welfare of farmed fish, the UK will continue to play an active part in the Council of Europe's negotiations to develop recommendations. Second, the Government proposes that many of FAWC's recommendations should be met by developing voluntary codes of practice with the farmed salmon and trout industries. FAWC made a number of recommendations on the need for research and the Government has prioritized these as follows. First to review commercial slaughter methods for trout and ensure that humane methods are available (Government-funded work is already underway on this). Second, if funds become available, to investigate improved methods for stunning and killing farmed salmon and setting stocking densities. Further research into environmental stimulation and interrelationships between food distribution, fish size and fish welfare is then to be pursued. Other research topics, such as the development of systems which minimize injuries to snout and fins, are viewed as matters for the industry to pursue.

Government's Response to the Farm Animal Welfare Council's Report on the Welfare of Farmed Fish. The Agriculture Departments of Great Britain (1998). Ministry of Agriculture Fisheries and Food: London. 22pp. Loose-leaf. Obtainable from the publishers, Government Buildings, Hook Rise South, Tolworth, Surbiton, Surrey KT6 7NF, UK. Free.

Towards a sustainable policy to control TB in cattle. A cull too far?

The first report by the UK Independent Scientific Group on cattle TB, chaired by Professor John Bourne, was published in July 1998, giving details of a randomized trial which will involve the extensive culling of badgers. The Group was formed to advise the UK Government on the implementation of the recommendations contained within the Krebs Report on *Bovine Tuberculosis in Cattle and Badgers*, published in 1997 (see, *Animal Welfare* 7: 217).

Responding to the Krebs Report's conclusion that: 'The sum of evidence strongly supports the view that, in Britain, badgers are a significant source of infection in cattle', and that a