1. Introduction

When recommending minimum standards in a code of welfare, is NAWAC obliged by the Animal Welfare Act 1999 to restrict itself entirely to matters directly concerned with *good practice* and *scientific knowledge*, or is NAWAC required to have regard to other matters as well? These questions are considered here.

2. Animal Sentience

NAWAC acknowledged the official recognition of animal sentience within the Animal Welfare Act in 2015. The understanding that animals are sentient, that they can have emotions, feelings, perceptions and experiences that matter to them, has always been integral to NAWAC's development of the codes of welfare and the minimum standards. NAWAC will continue to integrate the concept of animal sentience into future codes and standards as they are developed and reviewed.

3. Purposes and obligations under the Act

The *purpose* of Part 1 of the Act is to ensure that owners and persons in charge of animals attend properly to the welfare of those animals (section 9(1)), and Part 1 accordingly *requires* owners and persons in charge of animals to take all reasonable steps to ensure that the *physical, health and behavioural needs* of animals are met in accordance with both *good practice* and *scientific knowledge* (section 9(2)(a)).

These requirements are set out as *obligations* of owners and persons in charge of animals (section 10): that is, that the owner of an animal, and every person in charge of an animal, must ensure that the physical, health and behavioural needs of the animal are met in a manner which is in accordance with both good practice and scientific knowledge.

NAWAC notes the particular references to good practice and scientific knowledge in the purpose and obligation sections of the Act (sections 9(2)(a) and 10) and that these sections refer to the *general categories* of what is required. More detail is provided in the subsequent sections of the Act which deal with ways by which its purposes and obligations are to be achieved. Thus, it is clear that NAWAC is required to consider a wide range of other factors as well, as indicated below.

4. Meaning of terms

In order to achieve the above purpose of the Act (section 9(2)(a)) and to comply with the related obligation (section 10) it is necessary to understand the meaning of the terms "physical, health, and behavioural needs", "good practice" and "scientific knowledge".

As defined within the Act (section 4), the term "physical, health, and behavioural needs" includes:

- (a) proper and sufficient food and water;
- (b) adequate shelter;
- (c) opportunity to display normal patterns of behaviour;

- (d) physical handling in a manner which minimises the likelihood of unreasonable or unnecessary pain or distress; and
- (e) protection from, and rapid diagnosis of, any significant injury or disease,

being a need which, in each case, is appropriate to the species, environment and circumstances of the animal.

The Act does not define "good practice". NAWAC takes "good practice" to mean a standard of care that has a general level of acceptance among knowledgeable practitioners and experts in the field; is based on good sense and sound judgement; is practical and thorough; has robust experiential or scientific foundations; and prevents unreasonable or unnecessary harm to, or promotes the interests of, the animals to which it is applied. "Good practice" also takes account of the evolution of attitudes about animals and their care.

The Act does not define "scientific knowledge". NAWAC takes "scientific knowledge", relevant to its areas of responsibility, to mean knowledge within animal-based scientific disciplines, especially those that deal with nutritional, environmental, health, behavioural and cognitive/neural functions, which are relevant to understanding the physical, health and behavioural needs of animals. Such knowledge is not haphazard or anecdotal; it is generated by rigorous and systematic application of the scientific method, and the results are objectively and critically reviewed before acceptance. This is set out in more detail in *NAWAC GUIDELINE 05: Role of science in setting animal welfare standards.*

5. Codes of welfare

When considering the content of a draft code of welfare, and before deciding whether to recommend to the Minister the issue of that code, NAWAC must be satisfied:

- (a) that the proposed standards are the minimum necessary to ensure that the purposes of the Act will be met; and
- (b) that the recommendations for best practice (if any) are appropriate (section 73(1)).

Moreover, when carrying out these functions, NAWAC must have regard to:

- (a) the submissions made in response to public notification of the draft code (section 71) and the consultations undertaken by NAWAC;
- (b) good practice and scientific knowledge in relation to the management of the animals to which the code relates;
- (c) available technology;
- (d) any other matters, including practicality and economic impact, if considered relevant by NAWAC (section 73(2)(3).

Accordingly, the Act requires that matters in all of these areas, not just good practice and scientific knowledge, be considered by NAWAC. The range of such matters may be diverse.

6. Membership of NAWAC

The membership of NAWAC, as outlined in the Act (section 58), must not exceed 11. All members must be appointed by the Minister and must include a chairperson and the chairperson of the National Animal Ethics Advisory Committee. When appointing the

remaining members of NAWAC the Minister must have regard to the need for NAWAC to possess knowledge and experience in the following areas:

- (a) veterinary science;
- (b) agricultural science;
- (c) animal science;
- (d) the commercial use of animals;
- (e) the care, breeding and management of companion animals;
- (f) ethical standards and conduct in respect of animals;
- (g) animal welfare advocacy;
- (h) the public interest in respect of animals;
- (i) environmental and conservation management; and
- (j) any other area the Minister considers relevant.

Accordingly, the Act requires the Minister to have regard to the need for NAWAC to possess knowledge and experience in all of the areas (a) to (i) and in any other area the Minister considers relevant.

7. Public submissions and consultation on a draft code

Submissions arising from public notification of a draft code and input during the consultations undertaken by NAWAC (section 73(2)) usually provide a range of different perspectives towards each draft code. Those making submissions usually include, but are not limited to: members of the industry or group to which the draft code primarily applies, including those who prepared the draft code; people who have practical experience with other animals; animal-based or other scientists; marketers of animal-derived products; members of the veterinary profession; animal welfare advocates; animal rights advocates; legal experts; economists; ethicists; people with a range of ethnic and cultural affiliations; and members of the lay public with an interest in the draft code.

Submissions range from those that deal superficially with a single issue to those that analyse every part of the draft code in detail. Some submissions are well-informed, others are not. They usually provide NAWAC with insight into a wide spectrum of views on the draft code, all of which the Act requires NAWAC to consider. The wide range of expertise of NAWAC members, mandated under the Act (section 58), facilitates that process, as was presumably intended by Parliament.

8. Good practice

"Good practice" does not mean established or current practice. This was made clear by the Primary Production Select Committee. When it considered the Animal Welfare Bill it recorded:

"[The poultry and pork] industries supported the inclusion in clause (10) of the words "in accordance with established practice and scientific knowledge" on the assumption that the words "established practice" would sanction their existing management practices. This interpretation is not consistent with the intent of the clause as drafted. We believe the behavioural needs of pigs and poultry being intensively farmed are not being fully met and that such practices are contrary to the obligation in the clause. To clarify the intent of the clause we recommend that the words "established experience" be replaced with the words "good practice"".

A "good" practice is one of high quality. As the Select Committee recognised, certain established practices, particularly in the context of intensive farming of poultry and pigs, fall well short of that standard. Further, the term "practice" denotes an evolving and improving standard.

Therefore NAWAC takes "good practice" to mean a standard of care that has a general level of acceptance among knowledgeable practitioners and experts in the field; is based on good sense and sound judgement; is practical and thorough; has robust experiential or scientific foundations; and prevents unreasonable or unnecessary harm to, or promotes the interests of, the animals to which it is applied. Thus, "good practice" is based on experience with the practical care and management of animals in the circumstances of their use, common sense (carefully evaluated), knowledgeable observation of health and welfare status, veterinary medicine and available technology. The last of these, *available technology*, is not defined by the Act, but represents, for example, existing chemicals, drugs, instruments, devices and facilities which are used practically to care for and manage animals. The requirement in the Act for the Minister to appoint NAWAC members with knowledge and experience in veterinary science, agricultural science, animal science, the commercial use of animals, and the care, breeding and management of companion animals (section 58(3)(a) - (e)) is intended to enable careful assessment of these and related matters.

However, although knowledge and experience in science, technology, practicality and professional care of animals are the major factors in determining what "good practice" is, those determinations are undertaken within a context of thought about what, generally, are and are not considered to be acceptable ways of treating animals. Such thinking evolves gradually within stakeholder groups and society at large, and excludes capricious surges in public sentiment. Accordingly, NAWAC considers that another feature of "good practice" is that *good practice also takes account of the evolution of attitudes about animals and their care.* Consideration by NAWAC of these matters is allowed for in the Act (section 73(2)(b) and (d)). Moreover, the fact that the Act also requires the Minister to appoint members of NAWAC with knowledge and experience in ethical standards and conduct in respect of animals, animal welfare advocacy, the public interest in respect of animals, and environmental and conservation management (section 58(3)(f) - (i)) indicates a desire of Parliament that this breadth of expertise be applied during NAWAC deliberations.

9. Scientific knowledge

Scientific knowledge, rigorously and systematically acquired, and objectively and critically reviewed, develops continuously. Some conclusions remain the same, some are refined and others change markedly or are replaced. Moreover, conflicting interpretations of scientific data may arise as particular areas are explored in greater depth or in different ways, so that there may be two or more scientific explanations of a particular phenomenon. Accordingly, when animal-based sciences are applied to arriving at minimum welfare standards, there is often no one immutable interpretation at a scientific functional level by which issues may be resolved, and judgements need to be based on the weight of scientific evidence for or against particular propositions.

It is evident that applying science to the determination of minimum standards of animal welfare does not bring with it, as some people may believe, the precision that is achievable when measuring an object with a ruler or weighing it with scales. It is less precise than that and requires the careful exercise of judgement regarding the science itself. The Act allows such judgements to be made (section 73(2)).

10. Orientations towards animal welfare

There is another factor involved in assessments of ways to safeguard the welfare of animals. It is the context of thought in which good practice, scientific knowledge, available technology and other matters are applied to setting minimum standards, and it relates to ways of determining whether animal welfare compromise has occurred. Three main orientations have emerged and one or more of them is or are emphasised by those who make submissions on draft codes of welfare, by code-writing groups and others. These orientations are biological function, affective state and natural state.

With regard to the Act, approaches that emphasise *biological function* are centred primarily on the *physical and health needs* of animals, with related minimum standards designed to ensure that the animals receive proper and sufficient food and water, adequate shelter and protection from, and rapid diagnosis of, any significant injury or disease (section 4(a), (b) and (e)). A diverse range of well-established indices of the animal's functional status is available to judge the adequacy of these inputs within the scientific limits noted above.

Approaches that focus mainly on *affective state* – that is, what the animal may experience negatively (or positively) – relate to the *physical, health and/or behavioural needs* of animals. The related minimum standards are intended to ensure that thirst and hunger, distress associated with environmental factors and behavioural restriction, and pain and distress caused by injury and disease are managed appropriately. Thus, the animals must receive proper and sufficient food and water, adequate shelter, opportunity to display normal patterns of behaviour, physical handling in a manner which minimises the likelihood of unreasonable or unnecessary pain or distress and protection from, and rapid diagnosis of, any significant injury or disease (section 4(a) - (e)). A diverse range of wellestablished indices of the animal's status with respect to thirst and hunger, environmental stress, injury-related and disease-related pain and distress, and some forms of behavioural restriction, is available to judge the adequacy of these inputs within the scientific limits noted above.

Approaches centred primarily on *natural state* relate mainly to the *behavioural needs* of animals, and support minimum standards that would ensure the opportunity to display normal patterns of behaviour (section 4(c)) by advocating that animals be allowed to live in as natural circumstances as possible. Some forms of pastoral farming approach this requirement, but the welfare of the animals involved must be protected in all its dimensions (section 4(a) – (e)), so that the natural state orientation alone is not a satisfactory basis on which to set minimum standards.

The biological function and affective state orientations are complementary in their outcomes and overlap to a significant degree. The natural state orientation is more limited in its application, as it focuses mainly on behavioural freedom, and, if applied, its implications must be tempered by considerations relating to both biological function and affective state. Nevertheless, judgements made according to those two orientations

should also take account of natural state considerations. The Act accommodates reference to all three orientations (and any others that may emerge) by its definition of the physical, health and behavioural needs of animals (section 4(a) - (e)), and by the requirement for NAWAC to consider inputs arising from public notification of a draft code and the consultations NAWAC has undertaken (section 73(2)(a)), and any other matters considered relevant by NAWAC (section 73(2)(d)).

11. Conclusions

The Act directs NAWAC to focus attention on good practice and scientific knowledge when it recommends or reviews minimum standards, but it requires NAWAC also to have regard to wider issues. The wide range of knowledge and experience present among members of NAWAC, as required by the Act, anticipates this. "Good practice" and "scientific knowledge" deal with the management and care of animals using carefully evaluated approaches, but both have additional dimensions. For example, "good practice" includes those approaches and methods that allow acceptable standards of animal welfare to be achieved practically, but it also takes account of changes in carefully considered and well-informed attitudes towards animals and their care. Likewise, when employing scientific knowledge to make judgements about minimum standards, the certainties and uncertainties of precise interpretation of scientific data need consideration as well. The impact of available technology is important too, as available technology affects good practice and, over time, practical experience and scientific knowledge improve available technology. Moreover, deliberations on both good practice and scientific knowledge must also include assessment of the impacts of different ways of viewing the welfare status of animals. Finally, in those cases where NAWAC makes recommendations that do not fully meet some obligations of the Act (for example, section 10), it must have regard to the feasibility, practicality and adverse effects of achieving change, religious and/or cultural practices, and economic effects (section 73(2d) and (3)). Thus, NAWAC is obliged by the Act to consider all of these matters, and seeks to do so very carefully. Although this is a formidable task, the wide spectrum of knowledge and experience possessed by NAWAC members helps to equip them for it.

This guideline was originally approved by NAWAC on 15 April 2004, and has since been updated. This guideline is not a legal interpretation of the Animal Welfare Act 1999. It is anticipated that this guideline will be updated from time to time in light of experience gained by NAWAC during its deliberations.