# ANIMAL WELFARE (DEER) CODE OF WELFARE 2007 REPORT

## Introduction

1. This report accompanies the draft Animal Welfare (Deer) Code of Welfare 2007 which has been developed by the National Animal Welfare Advisory Committee (NAWAC), pursuant to the Animal Welfare Act 1999 (the Act). The Act requires that when NAWAC recommends to the Minister of Agriculture that a code of welfare be issued, the code must be accompanied by a report (section 74). That report must note:
   (a) The reasons for the committee's recommendation; and
   (b) The nature of any significant differences of opinion about the code, or any provision of it, that have been shown by the submissions; and
   (c) The nature of any significant differences of opinion about the code, or any provision of it, that have occurred within the committee.

   This report is not required to, and does not attempt to, show every detail of the analysis and discussions that took place.

2. It should be noted that the Act does not define 'significant differences'. While there were a variety of different opinions expressed in the submissions, NAWAC did not consider that all differences necessarily represented significant differences of opinion. NAWAC has taken the view that significant differences are either where there are large numbers of submissions which are contrary to a minimum standard in the draft code or where a submission puts forward a justification based on scientific evidence or good practice for a different or alternative minimum standard. NAWAC notes that some individuals or organisations may vary in their interpretation of what are significant differences.

3. There are currently about 1.7 million deer which are farmed throughout New Zealand. Deer are farmed for their meat, by-products and for velvet production. The code applies to any deer held behind any boundary fence or other enclosure for the broadest purposes of farming, including the keeping of deer on game estates or safari parks. The code covers all aspects of deer production except the removal of velvet which is covered by the *Code of Recommendations and Minimum Standards for the Welfare of Deer During the Removal of Antlers* and castration of male deer which is covered by the *Animal Welfare (Painful Husbandry Procedures) Code of Welfare 2005*.

## NAWAC Interpretation of the Act

3. The Act does not define minimum standards. NAWAC has taken minimum standards to mean the minimum level of care required to meet the welfare of the animal and to meet the obligations of the Act. Only minimum standards have legal effect in that failure to meet a minimum standard may be used to support a prosecution for an offence under the Act. However, equalling or exceeding a minimum standard can be used as defence against a charge of an offence under the Act.

4. The Act does not define recommended best practice. NAWAC has taken recommended best practice to mean the best practice agree at a particular time, following consideration of scientific information and accumulated experience and public opinion. It is usually a higher standard of practice than the minimum standard, except where the minimum standard is the best practice. It is a practice that can be varied as new information comes to light.

   Recommendations for best practice will be particularly appropriate where it is desirable to promote or encourage better care of animals than is provided by a minimum standard. Failure to comply with a recommended best practice does not make an individual liable for prosecution under the Act. In many cases it is not possible to make a recommended best practice the minimum standard, while in others the minimum standard will be the best practice (e.g. stunning prior to slaughter).

5. When recommending minimum standards and recommended best practices, NAWAC must take into account good practice, available technology and scientific knowledge. The Act does not define good practice. NAWAC has taken good practice to mean the 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.

   The Act does not define “available technology”. NAWAC takes it to represent, for example, existing chemicals, drugs, instruments, devices and facilities which are used practically to care for and manage animals.

   NAWAC may recommend minimum standards and recommended best practices, which do not meet the obligations of the Act but only in exceptional circumstances (section 73(3)). In making such a recommendation NAWAC must have regard to –
   - The feasibility and practicality of effecting a transition from current practices to new practices and any adverse effects that may result from such a transition;
   - The requirements of religious or cultural practices or both;
   - The economic effects of any transition from current practices to new practices. (section 73(4)).

## Public Consultation

6. The Act allows for any individual or organisation to draft a code of welfare. This code was drafted by a writing group convened by Deer Industry New Zealand (DINZ). DINZ is a statutory body and a non trading organisation which represents the interests of sectors of the farmed deer industry including approximately 5500 deer farmers, as well as the venison and velvetting processing and exporting sectors. The writing group comprised a deer farmer, an industry veterinarian, a stock and station agent, a venison processor/exporter, a New Zealand Deer Farmers' Association representative and DINZ executive staff. NAWAC acknowledges the extensive effort by the writing group and DINZ that contributed to the development of the draft code.

7. In addition, as required by the Act, industry representatives most likely to be affected by the code were consulted. The deer industry was initially consulted on the code on 27 June 2003 and again on 26 June 2004. As well as those directly involved with the deer industry, submissions on the draft code were also sought from researchers, RSPCA, Federated Farmers, the Deer Branch of the New Zealand Veterinary Association and the Ministry of Agriculture and Forestry.

8. Following a deliberation by NAWAC to ensure that the code complied with the purposes of the Act, was clearly written and readily understood, and that the code writing group had consulted with representatives likely to be affected by it (see section 71(2)(a)), the code was publicly notified on 11 December 2004, by public notices in the major newspapers in the four major centres, sent to all major libraries and to specific interested parties, as required by section 71 of the Act. NAWAC wishes to point out that at this stage NAWAC decided not to make any final decisions on the draft code until it had received submissions. The code is required to be publicly notified and for NAWAC to have proceeded prior to this notification would have meant that NAWAC was not following due process, by acting in a biased and predetermined manner. Submissions closed on 28 February 2005.

9. NAWAC members have also visited various deer farms to view and evaluate management practices.

10. A total of 13 written submissions were received. No oral submissions were heard.

## Main issues raised by submissions

11. All submissions were generally supportive of the code. Supportive comments were that the code was well set out and the information contained within it was generally sensible, practical and comprehensive. One view expressed that the majority of deer farmers would already be meeting the minimum standards.

12. There was one comment that the code contained too much detailed information. A further comment stated that minimum standards need to be practical, unambiguous and not unreasonably rigid.

13. Concerns were raised about the provision of shade and shelter and that the standards as drafted did not take into account practical realities. While there was support for the standards as drafted being ideals, there was concern that the standards would be unworkable. Clarity was sought on whether shade and shelter needs to be in every paddock, since many farmers have good shelter, but few have it in every paddock. In some cases it would be impractical to have shelter in every paddock due to the presence of tile drains, overhead wires etc. It was also noted that while shade and shelter can be provided, deer do not always seek it out. Clarity was also sought on what 'excessively hot' constitutes. It was also noted that this code was the first code for pastoral species and therefore what was required in this code would also apply to other pastoral species e.g. dairy cows, sheep.

14. It was noted that there were no reported cases of on farm consequences of animal welfare compromise from heat exhaustion, over exposure to sun, or heat stress that was not related to other factors e.g. lack of water, post velvetting stress. These situations were reputedly extremely rare.

15. Concern was raised in one submission about the keeping of deer in indoor facilities for prolonged periods of time, and that where practised, confinement should be limited to a maximum of three days. With further regard to indoor facilities concern was also raised about the permissible levels of ammonia. Minimum stocking densities would only be supported if confinement was limited to a maximum of three days. The same submitter noted that regular inspections needed to be defined and recommended that in extensive situations this should be weekly, where as on smaller holdings or when confined to yards, this needed to be daily.

**Specific Significant Differences**

16. NAWAC points out that it has considered all submissions and all aspects of the draft code. NAWAC has prepared an analysis of submissions received and has made recommendations on them. The following are the significant differences (considered by NAWAC to have arisen) between the draft code submitted for public consultation and submissions received.

17. There are a number of minimum standards, where the animal welfare implications are clearly self-evident and require no explanation for their inclusion (e.g. the provision of food and water). NAWAC has decided that it will not provide comment on those minimum standards or recommended best practices, but will provide explanations on minimum standards which it believes are complex, controversial or on which it received submissions with significant differences of opinion. Minimum standards as drafted may have been amend for a number of reasons, including: to make them legally robust, to ensure a

more effective coverage of the issue, or to change from a recommended best practice to a minimum standard (or vice versa).

**Scope of the Code**

18. Why game estates or safari parks are covered by this Code. It is recognised that further information is also provided in the New Zealand Association of Game Estates Industry Agree Standards, although these standards do not supersede this Code.

**NAWAC response:**
NAWAC recognises that these deer are generally farmed in extensive situations, in much the same way as many Merino sheep are farmed in the high-country. The Animal Welfare Act does apply to the owner, manager and staff, whoever is in charge of the animals, since they have care, control and supervision of the animals. Therefore, the obligation to ensure that physical, health and behavioural needs of the animals are met, is qualified (i.e. *'appropriate to the species, environment and circumstances of the animal'*) in the situation where they are held in a safari park. This means that as these deer live on a safari park where they are kept in a wild or semi-wild state, the degree to which 'proper and sufficient food and water' has to be supplied can be less than in a situation where an animal is kept in a much more confined state. However, if an adverse event occurs such as a drought and the animals are not able to obtain sufficient food and water on their own, then the owner and persons in charge could be obliged to provide additional food and water.

**Shade and Shelter**

19. A number of submitters expressed the following concerns:
    - Does shade and shelter need to be in every paddock?
    - What does 'excessively hot' mean?
    - What is suitable shelter?
    - Deer do not always use shelter or shade even when provided
    - Do shelter belts count as shade?
    - If shelter is provided and animals still die from hypothermia, is this an offence?
    - Minimum standards need to be practical
    - No documented cases of negative consequences relating to heat exhaustion or over exposure to heat
    - Access to appropriate shade and shelter is essential, taking into account that deer are essentially forest animals
    - When will this apply from/cannot comply immediately?

**NAWAC response**
Section 4 of the Act requires that adequate shelter must be provided for animals. There is a provision in the statute, however, that this is appropriate to the species, environment and circumstances. NAWAC has interpreted this to mean that the provision of shelter *per se* is not absolute. The Act recognises that there are situations where the provision of and need for

shelter will vary according to the types of animals, where they are living and their physiological requirements.

NAWAC notes that the need for, and use by animals of, shelter is largely determined by the dynamic features of their body temperature control mechanisms which are influenced by factors such as: species, evolutionary adaptation to particular climatic conditions, maturity/age, physiological state (growing, pregnancy, lactating, exercising), health status, weight/body condition, behavioural choices, dietary composition, environment and season. Along with the responses of animal (physiological, behavioural, growth and production, reproduction and pathological) these factors make a simple definition of the term 'adequate shelter' a difficult issue.

Within the context of farmed livestock, NAWAC takes shelter to encompass such factors as those related to the weather (sun, rain, wind, snow, etc), as well as other aspects of shelter (e.g. from humans, herd mates, predators etc). NAWAC takes 'adequate' to mean sufficient to maintain homeothermy. Homoeothermy is to maintain core body temperature within a range that does not produce tissue damage that is irreversible and therefore potentially life-threatening damage ( i.e. animals can be hot or cold, but not so hot or cold that it is noxious.)

Shelter can come in many different forms including vegetation (e.g. scrub, tussocks, rushes, long grass), shelterbelts, plantations and wide-spread tree plantings; shelter is also provided by topography (e.g. valleys and ridges), and artificial shelters (e.g. coats, rugs or covers; shade cloth, housing). The thermal environment can also be directly regulated e.g. by air conditioning, fans, and mist or water spraying. Finally, notwithstanding the need for shelter the physiology of an animal can be altered by 'tailoring' its diet to suit the climatic conditions.

Internationally, a great number of studies have described the effects of providing shelter for a number of species. However, there have been relatively few studies in New Zealand describing the effects of shelter on the behavioural and physiological responses of deer to cold or heat stress. In general, livestock use of shelter is variable, and often unpredictable. For deer, storms and summer sun were the most likely conditions to induce sheltering (Pollard et al. 2005). Red deer calves used artificial shelter of various designs in the Waikato, and that use increased as the daily maximum temperature increased (Hodgetts et al. 2002). Cover is also an important part of providing an appropriate environment for deer calves that show innate hiding behaviour in the period after they are born and its absence can lead to aberrant behaviour and compromised welfare (Cowie et al. 1985; Birtles et al. 1998; Waas et al. 2004). A postal survey of deer farmers (89 responses) indicated that most believed that: shelter improved deer health and growth; shade was beneficial to health; vegetative cover for hiding improved neonatal deer calf survival; and that fence-pacing was reduced by shelter (Pollard et al. 2005).

There are a number of factors which should be borne in mind when interpreting the results of experimental studies. Firstly, in mild conditions and

in the absence of poor weather, it may be difficult to detect statistically significant benefits from providing shelter (e.g. Moss 1982, cited by Pollard 2004; Pollard 1997). Secondly, researchers need to give assurance that the animals they are using are familiar with, or know how to use, the shelter provided. There is a need to distinguish between animals that don't use shelter and animals that don't use that particular form of shelter for whatever reason (e.g. too close to humans). Thirdly, shelter for protection from the weather should not be confounded by animal routines, or its use be simply the result of environmental enrichment. Finally, it is important in the application of the scientific method that all surveys recognise and acknowledge potential biases.

Nevertheless, the results of the limited New Zealand research are in accordance with international research, which generally highlights the detrimental effects of adverse environmental conditions. When shelter is available, the research shows that it will be used, at least in some circumstances, and that it has beneficial effects on the animal's thermoregulatory, survival and protective responses.

NAWAC is of the opinion that all classes of deer must have access to shelter to reduce the risk to health and welfare caused by exposure to cold. This does not mean that shelter is required in every paddock but rather, where shelter is not present in a paddock then deer must be moved, or able to move to, an area where shelter is accessible. The code provides information regarding cold conditions and hypothermia and the signs of advancing hypothermia when action must be taken. In addition, fawns must have access to ground cover for at least the first two weeks following birth to allow them to express their natural hiding behaviour and to enhance the chances of calf survival.

NAWAC is of the opinion that all classes of deer must also be provided with means to minimise the effects of heat stress. Under New Zealand conditions, heat stress is unlikely to be a significant or frequent issue. This will, however, depend on the geographical location and the season. Other factors that affect an animal's ability to cope with heat include insulation, coat colour and structure, breed, acclimatisation, diet, social factors, individual variation in heat tolerance, water temperature and availability, type of ground surface and stage in the productive cycle. Heat loading may also be exacerbated by the body heat generated from some diets and from excessive activity such as yarding and handling during hot weather.

Heat stress may be managed in a number of ways other than merely the provision of shade. Deer may not always choose shade, even on hot days. Where shade is limited in hot conditions, it is particularly important that water supplies are plentiful.

## Indoor housing

20. One submission raised concerns about indoor housing. In some areas of New Zealand young deer may be housed for varying periods over the winter months. Reasons include easier provision of shelter, increased survival especially in those areas with harsher climates, more efficient feed consumption, prevention of pasture damage and faster growth rates. Holding facilities are most often converted from existing buildings but may range from totally enclosed buildings, semi-enclosed buildings, a mixture of indoor housing and outdoor yarding to fully outdoor enclosed areas.

    **NAWAC response:**
    NAWAC members viewed a number of facilities which ranged from fully enclosed buildings to fully outdoor enclosed areas. In general, NAWAC had no concerns about these facilities, noting that although confinement places restriction on the range and extent of behaviours that can be expressed, it is for a period during the winter, and facilities generally provide protection against winter extremes with benefits to the welfare of the deer reflected in lower mortality rates compared to deer managed outside in those same geographical areas. In addition, the deer are generally quieter at the end of the confinement period, and subsequent handling, including transport and lairage, therefore imposes less stress – this has clear welfare benefits.

    Confined deer in these situations are totally reliant on owners or those in charge for all of their needs and therefore such confinement requires high levels of stockmanship and management. NAWAC has recommended a number of minimum standards which it believes will ensure acceptable welfare provided stringent application of those standards occurs. In particular, sufficient dry bedding must be provided to allow deer to rest by lying down. NAWAC also recommends that there should be access to outside runs and environmental enrichment practices should be considered.

## Inspections

21. More regular inspections requested by SPCA.

    **NAWAC response:**

    - NAWAC agrees that inspections are necessary in order to monitor whether minimum standards are being met but does not think that frequencies should be prescribed within the minimum standard because of the wide variety of management systems and associated needs for inspection
    - General advice can be given in the code
    - Inspections must be conducted in such a way and at a sufficient frequency to ensure that the minimum standards in this code are met
    - An owner or person in charge can only be assured that they are meeting the minimum standards if they are carrying out sufficient inspections

- In pastoral circumstances inspection frequencies will relate to the type of the farming operation
- At critical times in the annual cycle inspection frequencies will have to be adjusted to maintain the welfare of the animals e.g. mating, pregnancy, birth, lactation, drought, antler removal
- At these times management practices that avoid specific welfare problems can be put in place so that inspection frequency may be reduced. An example would be the prevention of metabolic disease in late pregnancy by adjusting stocking rate, improving plane of nutrition by supplementary feeding, drafting into groups according to anticipated birth date and number of offspring, provision of shelter
- Selection of the class of animal to be better suited to the particular terrain or farming system may reduce the frequency of inspections required.

**Stocking rates**

22. As a general principle NAWAC has not specified stocking densities for the general management of deer except in indoor housing situations. The varying nature of deer farms and the animals farmed on them means that no stocking rate can apply across the board. In Recommended Best Practice 5.5 a reduced stocking rate for fawning hinds has been stipulated. This recommendation was based on good practice advice in order to minimise disturbance of hinds and fawns during this critical bonding period and reduce fawn deaths (Asher and Pearse 2002).

**Ear Marking**

23. Some submitters suggested that ear marking should become a banned practice. It is NAWAC's view that this would be inconsistent with codes for other species. Furthermore there is a strongly held view among fallow deer farmers that argues against tagging, the preferred alternative to ear marking. They consider that the ear cartilages are too soft for them to retain permanent tags and that the resultant tearing out of tags results in greater discomfort for the animals than an ear mark. NAWAC has however included a recommendation against the use of ear marking.

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## References

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