International animal welfare issues

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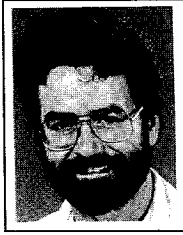

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Background

Animal welfare is one of the key issues that will influence the success of deer farming ventures. In recent years there has been a massive change in the way the public view some farming practices. Most concern has been expressed about "factory" or intensive farming systems (e.g. tethered sows and caged hens). There is now increasing scrutiny of outdoor farming practices and the associated handling procedures.

Deer farming stands to benefit from the current world wide interest in welfare. As most farmers have a strong empathy for their animals they will readily adopt alternative practices that have been proven to improve welfare. In addition, more animal-friendly handling procedures usually offer substantial benefits either in labour savings (e.g. improved race and yard design) or improvements in animal health and production (e.g. higher carcass yields and less bruising when transported in specially designed crates).

Typically, venison achieves high prices on world meat markets. In these premium markets customers demand high quality products. One component of quality is the perceived humaneness of the farming system from which the products are derived. Quality assurance with respect to welfare will assist in maintaining market premiums for deer products. Further, access to some markets (e.g. in the EC) may be restricted if high standards of animal care are not practised by farmers, transporters and processors in the country of origin.

Animal welfare refers to the standard of care and concern for animals when they are used by humans in farming, research or recreational activities. We need to consider animal welfare as animals have the capacity to experience pain and/or suffering.

Welfare is regarded as ideal when both the physical and behavioural needs of animals have been met, that is, when animals are free from:

- hunger and thirst
- physical discomfort and pain
- injury and disease
- fear and distress
- are free to show important behaviours (such as social contact with other animals) and to exercise (World Veterinary Association 1989).

These freedoms clearly represent an ideal state which, for practical reasons, would not apply to all animals all of the time. Nevertheless, animal users have a moral obligation to reduce any discomfort or stress to the lowest levels possible.

Any use of animals by humans has the potential to cause pain or stress and therefore to reduce the level of welfare. If a practice is thought to adversely affect welfare, then the use of the procedure has to be weighed against the benefits derived. In general, unduly painful, stressful or damaging routine should be avoided. In certain cases, the use of such procedures may be justified where the distress is brief or minimised and there are resulting benefits. These benefits fall into three categories and are listed in order of importance (to the animal):

- Benefits to the animal or others in its group. An example is removing antler velvet from stags. While some aspects of this procedure are stressful (Matthews and Cook, 1991), the animals benefit from the reduced risk of damage if transported in the velvet season, or the reduced risk of injuring others during the rut.
- Benefits to human safety and welfare. For instance, vaccination procedures result in some discomfort to animals but benefit humans by reducing the transmission of disease to animal handlers and consumers.

- Benefits to humans in terms of ease of animal management and farm profitability. Most animal handling procedures fall into this category and include such diverse practices as restraint, castration, transport and embryo transfer. All of these cause some pain or distress or place restrictions on behaviour and mainly or only benefit the farmer and not the animal.

Thus, the acceptability of various handling practices depends on the balance between the amount of pain, stress or behavioural deprivation experienced by the animal, and the magnitude of the subsequent benefits to animals and humans. Procedures that appear to have no benefits at all for the animal (e.g. transport to slaughter) are likely to be particularly controversial.

Questions about animal welfare often result in people making judgements based on how they would feel if placed in the animals position. This tendency is particularly noticeable where deer are concerned. The strong public empathy for deer results from their extensive characterisation in fairy stories, and noble status derived from European hunting traditions. In addition, the popular perception is that flighty animals such as deer can not be handled easily without sustaining injuries. These judgements may or may not correspond with judgements made following a scientific evaluation of the welfare of the animals in any particular situation.

Decisions then, about the acceptability or otherwise of various practices require objective assessment of both the amount of pain and/or stress perceived by the animal and the benefits accruing from those procedures.

Assessing Stress and Pain

The scientific assessment of animal stress and pain is based on measures of life expectancy, incidence of disease and injury, rates of growth and reproduction, changes in physiology (e.g. stress hormone levels, heart rates or disease resistance), and changes in behaviour (Broom 1988). Behavioural reactions are particularly important as they can be used to assess those farming practices that harm the animal as well as those practices that provide for good welfare. Ill-health is indicated by postural changes, and general stress by increased aggression, repetitive pacing or other abnormal behaviours. The preferences expressed by animals indicate those practices that are likely to lead to good welfare (Pollard, 1993).

Pacing the fencelines, disruption to grazing activity and an increase in plasma stress hormones (cortisol and progesterone) appear to be the best measures of more severe stress in deer, while avoidance responses and increased heart rates are the best measures of less severe stress or acute pain (Matthews and Cook, 1991).

Establishing a Welfare Trade-off

Animal welfare is controversial because of a lack of agreement between different sector groups on the appropriate trade-off between animal pain or stress arising from a particular practice, and the benefits derived.

In the extreme case, *animal rights* supporters (a minority group) argue that it is not appropriate to impose any costs (in terms of pain/stress) on an animal. Thus, animal rightists claim that there is no justification for any animal use and seek to abolish the use of animals in farming, research, sport, hunting and trapping (Singer, 1985).

Supporters of *animal welfare*, while acknowledging the acceptability of human use of animals, are more likely to give greater weight to animal costs and benefits than to human benefits when determining the desirability of various practices. Alternatively, some groups who depend on animals for their livelihood (e.g. farmers, researchers) may give more emphasis to the benefits to humans of animal use.

The issue is further complicated by differences between countries and cultures in standards of care and attitudes towards animals. The high degree of confinement in many European animal production systems has contributed to the much greater public concern for the welfare of farm animals in the EC than in countries like New Zealand and Australia. This has resulted in a strong call for a return to more extensive farming operations, similar to those practised in New Zealand. While this might seem to be to the advantage of deer farming, which is largely an outdoors operation, there is a potential downside. Because of the heightened awareness of welfare issues and the increasing "extensification" of farming systems in Europe there is increasing scrutiny of the welfare of animals in outdoor systems. The perceived welfare benefits of outdoors farming (e.g. behavioural freedom) may not completely offset some other aspects (e.g. limited shelter).

In the end, the acceptability of various practices requires a moral decision based on the available scientific evidence. Different people, cultures or countries may prefer to draw the line, marking what is unacceptable, at different places on the welfare continuum. The more rigorous the scientific evaluation of a particular practice, the

more likely a mutually acceptable decision can be reached.

Practices at Issue

A wide range of farming practices could potentially give rise to welfare concern. There are strong regional differences in the degree of emphasis given to particular practices. In the United Kingdom and some parts of Central Europe and California removal of the growing antler (velvet) is not permitted by law and therefore is not an issue. In other countries such as Canada, Australia and New Zealand velvet is harvested and the procedure is contentious. Consistent with the noble traditions of deer in Germany, particular attention is given to the behavioural freedom of farmed animals in that country. In the United Kingdom there is considerable public concern with the transport of deer. In Canada, recent introductions of some species of deer have raised concern about the transmission of disease to indigenous wild life.

Antler Removal

Removing the antlers of stags safeguards the welfare of animals and their handlers. In many countries this operation is undertaken when the antler is growing (velvet antler). The advantage of removing the antler while it is still growing is that the animals are easier to handle and less likely to fight with and injure each other or handlers compared with animals carrying fully hardened antlers. A potential welfare concern arises from the removal of a highly vascularised and sensitive tissue. Recent research has shown that provided an effective local analgesic is injected around the base of the antler some 4 to 6 minutes prior to harvesting there is little evidence of pain during the removal process. (Matthews, *et al.*, 1992). The duration of analgesia is about 90 to 120 minutes. Research is being conducted to determine if stags experience pain after this time.

Stags experience some stress from the general handling (yarding, drafting, restraint and social isolation) prior to antler removal but this is similar for animals de-antlered at both the sensitive and non-sensitive (hardened) stages (Matthews, *et al.*, 1990).

On balance current scientific evidence suggests that the benefits to the animals and humans of removing antlers in the growing stage outweigh any short-term welfare costs (i.e. stress) to the animal. Disbudding of animals as calves would obviate the need for annual operations. A standard cattle disbudding iron has proved effective in preventing antler growth (Hamilton, *et al.*, 1993). A local anaesthetic was administered prior to disbudding but no measures of pain or distress during or immediately following the operation were reported.

Transport

The transport-slaughter process is controversial with all farmed species because of the wide range of stressful events that animals are exposed to, and because of the emotiveness of the death process. With deer, stress is associated with herding and trucking (Smith and Dobson, 1990), confinement in unfamiliar surroundings (Kay *et al.*, 1981) and with bruising and other trauma received en route to slaughter (Selwyn and Hathaway, 1990). During the immediate pre-slaughter period the duration of time in the lairage area, the availability of food and water, the ease of movement to the lairage and stunning areas, type of head restraint at stunning and stunning procedure are all topical welfare issues (FAWC, 1984). Because animals derive no benefit from the slaughtering process, continued public acceptance of this practice will depend on reducing the welfare costs to the lowest level possible. Research on cattle has shown that altering loading and unloading facilities to improve animal flow, avoiding over or under crowding and the mixing of unfamiliar or horned animals, and reducing the use of electric goads leads to improvements in animal welfare (Eldridge, *et al.*, 1986, 1989). Similar research is necessary with deer. A survey of bruising rates in deer arriving at a commercial slaughter plant showed that bruising was higher for journeys exceeding 150km (Jago, 1992). Thus, the requirements for animals transported longer distances may be different from those on short hauls. This is currently being addressed by research in New Zealand.

Other Practices

Other practices which have no obvious benefit to the animal but which cause some degree of stress, pain or behavioural deprivation will become increasingly difficult to justify to consumers. To illustrate, castration of pigs is now viewed as unacceptable in Europe as it is possible using appropriate management to raise male pigs to slaughter weight without "boar taint" of the meat.

Thus, potentially controversial deer farming practices include electroejaculation, confinement of animals in barren paddocks without shade or shelter, and handling or restraining facilities or procedures that lead to unnecessary excitement or stress. Systems that allow animals to express their natural behavioural tendencies (e.g. to seek seclusion in response to

disturbance (Hermann, 1991) or the use of analgesics to reduce pain will assist public acceptance of routine farming practices.

Reproductive manipulations that lead to increased calving difficulties or caesarian sections (e.g. from the use of large breed sires across small dams) are unacceptable. Electro-immobilisation as a restraining technique has been banned in the UK and other European countries. Its use can not be recommended for deer (Stafford and Mesken, 1992).

The Future

Deer have proved much easier to handle and transport than was originally thought possible. But with ever increasing standards of animal welfare demanded by the public the way ahead is clear. The deer industry must continue to anticipate areas of concern, ensure appropriate scientific evaluation of the issues, and develop and demand compliance with strict Codes of Practice. In New Zealand codes have been developed and implemented for the harvesting of velvet and transport of animals.

Attitudes to animal welfare will continue to evolve. These changes need to be monitored so that:

- Handling practices can be reassessed in the light of new attitudes or knowledge;
- Public education campaigns can be undertaken where the proven welfare benefits (or relative harmlessness) of certain practices are not widely recognised.

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