Code of Welfare

Deer

11 August 2025

Issued under the Animal Welfare Act 1999

Te Kāwanatanga o Aotearoa
New Zealand Government

TITLE

Code of Welfare: Deer

COMMENCEMENT

This Code of Welfare comes into force on 8 September 2025.

ISSUING AUTHORITY

This Code of Welfare is issued by the Associate Minister of Agriculture, by a notice published in the *Gazette*, under section 75 of the Animal Welfare Act 1999, after having complied with the matters specified in section 75(1).

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Introduction

This introduction and any appendices are not part of the Code of Welfare but are intended to indicate its general effect.

Purpose

The purpose of this Code is to provide information to the owners and persons in charge of farmed deer about the standards they must achieve in order to meet their obligations under the Animal Welfare Act 1999 (the Act).

This Code encourages all those responsible for deer to adopt the highest standards of husbandry, care and handling, and to equal or exceed the minimum standards.

Adequately maintaining the welfare of the deer requires experience, training and the observance of high standards.

Background

The Act provides for the welfare of animals in New Zealand. It puts obligations on people who own or are in charge of animals to provide for the welfare of their animals.

The Act establishes the fundamental obligations relating to the care of animals and provides for the development and issue of Codes of Welfare.

Codes of Welfare expand on the basic obligations of the Act by setting minimum standards and recommending best practice for the care and management of animals.

Minimum standards provide the details of specific actions people need to take in order to meet the obligations in the Act. They are identified in the Code by a heading and are contained within a box. Minimum standards use the word “must” or similar.

This Code of Welfare includes information and example indicators for each minimum standard. The list of indicators is not exhaustive but is given to provide guidance on ways in which a minimum standard may be met.

Recommended best practices are usually a higher standard of practice than the minimum standard, except where the minimum standard is best practice. Recommended best practices generally use the word “should”, and do not need to be complied with. These practices 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 for animals than is provided as a minimum standard.

This Code of Welfare also references regulations issued under the Act. Regulations are prescribed under the Act and impose enforceable requirements on owners and persons in charge of animals. For ease of reference, regulations relevant to this Code are set out in an appendix to this Code. Penalties for failure to comply with the regulations are specified in the relevant regulations. The appendix to this Code is not intended to provide an exhaustive list of all obligations under the Act or regulatory requirements. Owners and persons in charge of animals are responsible for ensuring that they are aware of, and understand all Act and regulatory requirements that are relevant to them, including all applicable Codes of Welfare.

Under the Act, a “significant surgical procedure” may only be carried out by a veterinarian or their supervised student, unless there are regulations that say otherwise. The regulations clarify who can carry out certain procedures and how they should be done.

Who should read this Code of Welfare?

This Code of Welfare is intended for all persons responsible for the welfare of farmed deer, including trophy animals.

Under the Act the "owner" and every "person in charge" of an animal are responsible for meeting the legal obligations for the welfare of animals under their care. The Act also provides for liability of employers, principals, directors and officers of bodies corporate.

This Code applies to all deer, including fawns. The owner may place deer in the care of others who become the persons in charge, but this does not derogate from their responsibility to ensure that the requirements of the Act and animal welfare regulations are met.

Why is this important?

Failure to meet a minimum standard in this Code may be used as evidence to support a prosecution for an offence under the Act. A person who is charged with an offence against the Act can defend themself by showing that they have equalled or exceeded the minimum standards in this Code.

Some minimum standards have example indicators. The list of indicators is not exhaustive, but is given to provide guidance on ways in which a minimum standard may be met.

Owners and persons in charge of animals are not required to comply with the recommendations for best practice in this Code, but are encouraged to do so to provide higher standards of welfare.

Legislative background

This Code does not provide an exhaustive list of the Act's requirements, and owners and those in charge of animals should note that they must comply with the minimum standards in this Code, the general provisions of the Act, and any regulations issued under the Act. A copy of the Act and animal welfare regulations are available at: www.legislation.govt.nz

Other information

Other codes of welfare should be consulted where appropriate. Further detail on the transport of livestock and the application of painful husbandry procedures are covered in other codes, and in regulations issued under the Act. Codes are available on the Ministry for Primary Industries website at www.mpi.govt.nz. Animal welfare regulations can be found at www.legislation.govt.nz. Efforts to include relevant regulations within this Code have been made, although there may be other regulations which are relevant to you.

Common species of deer farmed in New Zealand include red deer, elk or wapiti (*Cervus elaphus*), and European fallow deer (*Dama dama*).

It is recognised that terms referring to male, female and young deer vary depending on the species (e.g. hind, cow, doe for females of red deer, wapiti or fallow, respectively). For ease, this Code refers to hinds, stags and fawns, but these should be interpreted as applying to all species of deer present in New Zealand.

This Code sets out the general principles for the care of deer and was originally developed to align with the industry's DeerQA On-Farm Programme. DeerQA now forms part of the New Zealand Farm Assurance Programme (NZFAP). Game estate and safari park operators may refer to the *New Zealand Association of Game Estates Industry Agreed Standards* for further information, although these standards do not supersede this Code of Welfare.

Codes of Welfare must be accompanied by a report that sets out the deliberations of the National Animal Welfare Advisory Committee (NAWAC) when reviewing the Codes of Welfare. The report includes standards and recommendations for best practice, the nature of any significant differences of opinion during drafting and consultation, and any matters that should be dealt with by regulation. Code reports can be accessed online (see www.mpi.govt.nz).

Part 1: General Requirements

1.1 Application

This Code is intended for all persons responsible for the welfare of farmed deer. It 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.

1.2 Interpretation and Definitions

Refer to Schedule I – Interpretation and Definitions.

Part 2: Stockpersonship and Animal Handling

Introduction

Deer are sentient animals and have emotions, feelings, perceptions and experiences that matter to them. The care of these animals therefore requires expertise, a good understanding of the relationship between owners or persons in charge of deer, and the observance of high standards as outlined in this Code.

Stockpersonship and animal handling cover a wide range of skills and personal qualities. These include knowledge of animal needs, an understanding of the husbandry system, empathy and respect for animals, an ability to observe them and interpret behaviours, as well as skill in practical aspects of handling and care for animals.

This Code is based on current knowledge and technology available at the time of issue. It is anticipated that those owning and caring for deer keep up to date with developments in animal husbandry and welfare and review their practices regularly to improve animal welfare.

2.1 Stockpersonship

Introduction

Stockpersonship includes an affinity and empathy for the animals, and is the ability to identify an animal's needs and ensure that action is taken to address them. Stockpeople should be knowledgeable and competent in the care of animals and understand how their actions can affect animal health and welfare.

Owners, managers and persons in charge need to ensure that their staff have either the relevant knowledge and training, or appropriate supervision and support to ensure that the health and welfare needs of deer in their care are met. Personnel should undergo formal or on-the-job training overseen by experienced, knowledgeable and skilled supervisors. All staff, including contract or temporary staff should be trained and competent in the relevant task.

The abilities of a stockperson may determine the number of deer that can be properly cared for by one individual.

Minimum Standard No. 1 – Stockpersonship
The owner and person in charge must ensure that deer are cared for by a sufficient number of personnel, who collectively possess the ability, time, knowledge and competence necessary to maintain the health, welfare, and safety of the animals in accordance with this Code.

Example Indicators for Minimum Standard No. 1 – Stockpersonship

- Stockpeople are familiar with the minimum standards, recommended best practices and regulations listed in this Code
- A copy of this Code is available to refer to at all times
- Those caring for deer have knowledge of normal deer behaviour, can recognise abnormal behaviour, and take appropriate actions to address it
- Stockpeople have a positive attitude, empathy and respect towards deer
- Stockpeople understand how their actions may affect the welfare of deer
- Stockpeople can demonstrate that they have acquired the appropriate skills and knowledge to work with deer
- Staff under training are supervised until they have achieved competence

- Stockpeople ask for, and receive, assistance when dealing with situations outside their expertise
- Animal husbandry systems and practices are reviewed regularly to ensure that they continue to be necessary, and improved systems are incorporated where possible

Recommended Best Practice

a) Stockpeople, owners and persons in charge of deer keep up to date with developments in the industry, and review their systems and practices regularly to improve the welfare of their animals.
b) Welfare assurance systems (Part 10: Welfare Assurance System) should emphasise the importance of staff training in animal handling and welfare.
c) Owners or persons in charge of deer, who face hardships that could compromise animal welfare on farm, should seek help as soon as possible to ensure regular inspection and care for the animals continues.
d) On-farm supervisors have knowledge and skill in animal husbandry relevant to the local area and farming system being used.

General Information

Upskilling of stockpeople can be achieved by either completing formal training courses, or receiving on-the-job training from supervisors who are knowledgeable and competent in the care of deer. The WorkSafe website has useful guidance on good deer handling practices at https://www.worksafe.govt.nz/topic-and-industry/agriculture/working-with-animals/safe-deer-handling/. Information on training relevant to the primary production sector is available from the Primary Industries Training Organisation www.primaryito.ac.nz or from the NZQA www.nzqa.govt.nz. Practical information on animal welfare and farming systems can be found at Deer Industry New Zealand (DINZ) https://www.deernz.org/deer-hub.

2.2 Animal Handling

Introduction

The safe and efficient movement of deer is dependent on both good facility design, and stock handling skills. Good facilities reduce the need to apply pressure on animals in order to move and handle them, reducing distress and risk to both the animals and their handlers.

Deer are extremely flighty compared to other grazing animals and have not been domesticated for as long as other species. As a prey species, fear motivates deer to escape from perceived danger. Reducing fear by keeping an animal calm makes it easier to handle. Careful and quiet handling will help improve deer welfare and productivity, reduce ill-health and risk of injury, and result in animals settling quicker and resuming normal behaviour (e.g. feeding) after handling.

The first time an animal is handled is important in determining its response to future handling. Familiarising animals to appropriate handling, especially if undertaken gradually and for short periods, may reduce fear, improve the efficiency and safety of handling, and increase tolerance of new situations.

See summary of regulations appended to this Code:

- Regulation 48 – Use of electric prodders.
- Regulation 49 – Prodding animals in sensitive areas.

Minimum Standard No. 2 – Animal Handling
(a) Deer must be handled in such a way as to minimise the risk of pain, injury or distress to them. (b) Handling must not unnecessarily isolate animals. (c) Only the minimum force required must be used when moving deer.

(d) Tails must not be handled in a manner that causes pain or injury.

Example Indicators for Minimum Standard No. 2 – Animal Handling

- Deer are handled with patience and in a manner that considers their species-specific senses and behaviour (MS 2(a, b, c, d))
- Deer are handled using calm encouragement, and visual and vocal cues, rather than physical contact (MS 2(a, c, d))
- Handling fosters a positive relationship between the deer and those responsible for them (MS 2(a, c))
- New-born and young fawns are handled and moved appropriately (e.g., supported by their body, not lifted by ears, tail or limbs) (MS 2(a, c,))
- Animals do not have injuries caused by poor handling (MS 2(a, c, d))
- Deer do not show excessive fear towards stockpeople (MS 2(a))
- Deer do not overly react in an adverse manner during routine husbandry procedures (MS2(a))
- In handling facilities, deer are held in small mobs appropriate for the size of the pen (MS 2(b))
- Deer can see other mobs of deer, and are not held in isolation unless absolutely necessary (MS 2(b))
- Deer are not moved or restrained by the tail (MS 2(a, d))
- Tails are not manipulated beyond their natural range of motion (e.g. pulled, bent, compressed or twisted) by hand or by use of equipment (MS 2(d))

Recommended Best Practice

a) Deer should not be handled during adverse weather conditions (e.g. thunder and hailstorms, strong winds, excessive heat), unless necessary to protect their welfare.
b) The flow of deer should always be monitored and controlled at gateways, in narrow laneways and corners, or at other pressure points, to ensure they are not injured, trampled or smothered. This is especially important for deer that are unaccustomed to yarding.
c) Time spent in the yards or handling facilities should be kept to a minimum.
d) Handling deer in dusty facilities should be avoided as it may cause lung or eye irritation for both animals and stockpeople.
e) Handling of male deer should be kept to a minimum, especially during the rut.

General Information

Knowledge of an animal's flight zone will help when moving them, and reduce fear. Animals may become fearful and agitated when people invade this zone, especially if the animal is confined or unable to move away. The size of the flight zone depends on an animal's genetics, its previous experience with people, and the quality of those experiences (i.e., whether negative or positive).

Deer have excellent hearing and vision that is sensitive to rapid movement and high contrasts (e.g. shadows). Nervous, agitated or excited deer are more aware of small changes in their environment. Handling procedures should be carried out slowly and calmly, with stockpeople using a soft and low tone of voice.

2.3 Mustering and Moving

Introduction

Mustering of deer is essential for their husbandry and is best undertaken slowly and quietly. The skill of the stockperson lies in understanding the behaviour of the animals and using this to enable mustering, whilst minimising stress to the animals.

Minimum Standard No. 3 – Mustering and Moving
(a) Care must be taken at all times to minimise injury or distress to the deer being moved. (b) Deer being moved on foot must not be forced to proceed at a pace that will cause exhaustion or heat stress. (c) Prompt remedial action must be taken for deer that become injured or distressed when being moved.

Example Indicators for Minimum Standard No. 3 – Mustering and Moving

- Deer are calm and move steadily as a mob (MS 3(a, b))
- At the first indication of being moved too quickly (e.g. laboured breathing or open mouth panting, particularly with the tongue extended), animals are rested or the pace of movement is slowed (MS 3(a, b))
- Mustering in hot conditions is avoided (MS 3(a, b))
- After mustering, animals are provided with suitable conditions and time to enable settling down, mothering up, or shelter seeking before the onset of darkness (MS 3(a))
- The pace of mustering is that of the slowest animals in the mob (MS 3(b))
- Deer that are injured or unwell receive appropriate treatment as soon as is practical (MS 3(c))

Recommended Best Practice

a) Whenever practical, mustering in very windy conditions should be avoided.
b) Where dogs are used to muster deer, they should be kept under control at all times and muzzled if necessary.

2.4 Restraint

Introduction

Restraint is commonly used in the deer industry. Mechanical restraint devices need to be designed and sized specifically for each deer species being farmed. Stockpeople need to be aware that mechanical restraints can cause injury to animals or people if not managed, maintained and applied properly. Injuries to deer can include dislocated or fractured ribs, which may only be identified at the time of slaughter.

Minimum Standard No. 4 – Restraint
(a) Restraint must be: i) applied in a way that minimises the risk of injury or unnecessary pain or distress to deer. ii) suitable for the class of animal being restrained. iii) undertaken by a competent person who is conversant with the operating procedures of the restraint equipment. (b) Restraint must only be applied for as long as necessary to perform a particular procedure. (c) Animals that are restrained must be kept under close supervision at all times. (d) Deer must be able to be rapidly released from restraint. (e) Electroimmobilisation devices must not be used for any purpose on deer.

Example Indicators for Minimum Standard No. 4 – Restraint

- Deer do not struggle excessively when restrained (MS 4(a))
- Operators of restraint devices have appropriate knowledge and training to apply restraint to deer safely, and do so consistently (MS 4(a))
- Hydraulic restraint pressures do not exceed the manufacturer's specifications or risk causing injury (MS 4(a, b))

- Operators recognise the signs of stress in restrained deer (e.g. altered breathing patterns), and take immediate steps to minimise it (MS 4(a, c, d))
- Facilities and equipment for restraint are maintained and kept in good working order (e.g. there are no protrusions that might injure the deer) (MS 4(a))
- Deer are not restrained for extended periods (MS 4(b, c))
- Deer are released quickly if any difficulty is encountered during restraint (MS 4(c, d))

Recommended Best Practice

a) Restraint devices should be regularly cleaned and kept free of contaminants such as bird droppings, blood, mud and deer hair.
b) Restraint devices should be located or positioned within the facilities to allow for ease of access and exit for deer and stockpeople.

Part 3: Behaviour

3.1 Deer Behaviour

Introduction

Understanding deer behaviour is essential for maintaining and enhancing their welfare and safe, efficient animal husbandry. Like other pastoral species, deer require opportunities to express normal behaviours to meet their physical and behavioural needs. However, when working with deer there are also important differences that need to be considered.

Deer still have a strong flight response and tend to be less tolerant of people compared to other species like cattle or sheep. They are hierarchical and highly social animals that seek comfort in groups. Understanding seasonal influences on reproductive behaviour (particularly in stags) is important, as there are increased risks in handling deer during the breeding and fawning seasons. Knowledge of these fundamental differences is critical for working effectively and safely with deer.

Further specific behavioural needs to be considered include wallowing and hinds seeking seclusion to fawn (see also Part 5.1: Shade and Shelter). Species and breed differences exist and should be considered. For example, red deer and wapiti engage in wallowing behaviour but fallow deer do not.

Generally, deer in controlled grazing systems adjust quickly and positively to a consistent routine (e.g., movement time or supplementary feeding), which leads to more settled behaviour, improved growth, and maintenance of body condition. Unpredictable or disrupted routine may aggravate bullying or disrupt herd structure, which can negatively impact welfare.

For deer to have good welfare, they should have positive experiences and opportunities to perform natural behaviours. Deviations from normal behaviour can both indicate and result in stress. Prolonged and severe stress can result in compromised health, welfare and production. Conversely, an environment that provides opportunities to express normal behaviour (e.g. the ability to choose feed, find shelter and interact with companions) will help ensure good welfare.

Minimum Standard No. 5 – Deer Behaviour
(a) Deer must be able to walk, turn around, lie down and rise freely from a natural lying position. (b) Deer must have the opportunity to express and satisfy a range of other normal behaviours that are appropriate to their species, sex and season. These include foraging, ruminating, rutting, socialising and seeking shelter or protection during fawning. (c) Deer must have sufficient space to enable: i) all animals in a mob to lie down and rest comfortably at the same time. ii) individuals to withdraw from aggressive encounters.

Example Indicators for Minimum Standard No. 5 – Deer Behaviour

- Group sizes, and available space (including areas around feeding and watering facilities), are appropriate for the species and class of animals so that deer can express normal behaviours (MS 5(a, b, c))
- Stocking density, lying surface and area allocated for lying (including pen size) are sufficient for deer to lie in a normal posture, and to lie down and rise comfortably (MS 5(a, b, c))
- Fence-pacing is absent or infrequently observed (MS 5(a, b, c))
- Deer have opportunities for feed selection and to engage in foraging (MS 5(b))
- Deer are seen to be ruminating (MS 5(b))

- Deer can engage in wallowing behaviour (MS 5(b))
- Fawning hinds can engage in normal behaviours prior to and after giving birth (i.e., separate themselves from other animals in the herd and access appropriate hides) (MS 5(b))
- Deer have the opportunity to engage in play behaviour (MS 5(b))
- Deer have the opportunity to lie and rest comfortably for as long as they choose (MS 5(b, c))
- Lying is not impeded by mud, surface water or manure accumulation (MS 5(b))

Recommended Best Practice

a) Deer should be given opportunities to engage in behaviours they are motivated to perform, and make choices that promote positive experiences (e.g. wallowing, play behaviour, interaction with their environment).
b) Deer wallowing should be encouraged, with areas provided that are in balance with environmental care programmes (for more information, refer to Deer Industry New Zealand (DINZ) guidance on environmental management).

General Information

Increasing consideration should be given to providing deer the opportunity to engage in behaviours they enjoy, as this promotes positive experiences and improves quality of life.

Deer kept in pastoral systems usually have opportunities for positive experiences, such as space to move freely, compressible walking surfaces, room to choose where to lie, room to withdraw from aggressive interactions, and the ability to graze and experience exposure to fresh air and natural light. Deer housed in off-paddock facilities should be provided with these same opportunities, although they may be offered in different ways.

Regular monitoring allows observers to determine an animal's normal routines so abnormalities can be detected and managed. Behaviours suggestive of stress include panting, shaking, dropped ears, dribbling of saliva, excessive flightiness, and a bark-like vocalisation. When confined, additional signs may be seen such as animals climbing on top of each other.

Indications of aggression include teeth-grinding, opening of the peri-orbital gland, kicking out of back legs, and pawing of front legs. Red deer will often drop their head as a sign of aggression, while wapiti may raise their head and neck high.

Careful consideration is needed when managing wallowing needs of deer alongside requirements to maintain clean waterways. Deer wallowing holes need to be maintained in accordance with the National Environmental Standards for Freshwater, the Stock Exclusion Regulations (2020), and district or regional plans.

3.2 Mixing of Deer

Introduction

Mixing unfamiliar deer can result in fighting and injury unless preventative measures are put in place. This is particularly important for stags during the rutting season. A large paddock can be used to minimise confrontation and where possible, paddocks with broken contours and natural cover will assist in reducing stress.

Minimum Standard No. 6 – Mixing of Deer
(a) Where unfamiliar deer are mixed, they must be observed periodically throughout the day of mixing, and then daily until settled. Where signs of injury or continued aggression are likely to lead to injury are observed, remedial action must be taken.

(b) Sufficient space must be provided to newly mixed deer to allow escape from aggressive encounters.
(c) Deer that do not adapt following mixing must be provided with alternative management.
(d) If any deer are subjected to persistent bullying, they must be checked for illness and injury, and remedial action taken if necessary.

Example Indicators for Minimum Standard No. 6 – Mixing of Deer

- Incidents of aggressive behaviour are minimal following mixing of deer (MS 6(a))
- Low incidences of serious injuries due to fighting or bullying are seen (MS 6(a))
- Deer have the opportunity to move away from aggression or bullying (MS 6(b))
- Prompt action (e.g. movement to another mob) is taken when a bullied animal is identified (MS 6(c, d))
- If a bullied animal is introduced to a new mob, it is monitored closely to ensure further confrontation is minimised (MS 6 (d))

Recommended Best Practice

a) Mobs should be grouped according to factors such as bodyweight, sex, age, breed, manageable mob size and their previous management history.
b) New stags introduced to a property should initially be placed in mobs without other stags (e.g. yearling or mixed-age hinds), to allow familiarisation with their surroundings.
c) Abundant space is provided when deer are mixed, to allow all animals to re-establish their social hierarchy.

General Information

As deer develop strong social structures in their groups, there will be a degree of stress involved when taking animals from their existing mob and introducing them to a new property or herd. This is particularly the case with hinds (due to the matriarchal hierarchy) and young male deer.

If males are selected early and shifted to a new property before the end of January, it will allow them time to settle and adjust prior to the rut. Introducing a male to a small group of other male deer will minimise stress and assist the male to settle quickly during this period. Alternatively, the male could be put in with females.

Running deer at low stocking rates and in small mobs will assist with the integration of new arrivals.

When mixing deer, consideration needs to be given to seasonal influences on physiology and behaviour (e.g. pregnancy, rut, stage of antler growth), as well as the size and nature of the area (e.g. provision of natural cover) where mixing will occur.

Part 4: Feed and Water

4.1 Feed

Introduction

Deer at all life stages need to receive a diet containing sufficient nutrients to meet their requirements for good health and welfare. Grazed pasture is the main source of feed for deer in New Zealand farming systems and generally provides a balanced diet.

Where outdoor grazing is practised most of the year, pasture quality and quantity are climate and weather dependent, and supplements may be needed during periods of deficit. Provision of alternative feed sources during these periods needs to be planned carefully to avoid health and welfare problems. In particular, the stockperson needs to take account of a number of factors, including:

- age, sex and genetics of the animals
- availability of shade and shelter
- body condition, both current and desired
- climatic and seasonal factors (e.g. extreme weather) and the increase in maintenance requirements during cold, wet and windy weather, or reduced intake in hot conditions
- feeding methods that minimise risks to health and wellbeing during the transition period
- nutritional composition and quality of the feed (e.g. energy, protein, fibre, fat, and carbohydrate levels, and any added minerals and vitamins)
- palatability of the food
- periods of feed deprivation (e.g. prior to transport, and considering the length of the intended journey)
- physiological state (e.g. growth, pregnancy, lactation, and general health/activity levels)
- the importance of correct dietary balance of minerals and trace elements, and whether supplementation is required

Feeding levels are best determined by monitoring the body condition score (BCS) of the deer (see Schedule II – Body Condition Scoring of Deer), or through regular liveweight monitoring. Body Condition Score considers the variability in size and conformation that occurs between individual animals and at different times of the year.

Many feedstuffs can pose a risk to deer under certain circumstances. Stockpeople need to be aware of possible dangers such as bloat, nitrate or toxic plant poisoning, rumen acidosis, choke and the effects of fungal contamination.

Minimum Standard No. 7 – Feed
(a) Deer must receive sufficient quantities of feed and nutrients to enable each deer to: i) maintain good health; and ii) meet its physiological demands; and iii) minimise the incidence of metabolic and nutritional disorders. (b) Feed must be provided in a way that minimises competition. (c) If the Body Condition Score (BCS) of any individual adult deer falls to 2 or below (on a scale of 1-5), remedial action must be taken to remedy and prevent further deterioration, and any risk to animal health or welfare. (d) Any signs of ill-thrift or emaciation in fawns or weaners must be promptly investigated and remedial action taken.

Note: It is illegal to feed ruminant proteins to deer under regulation 4 of the Biosecurity (Ruminant Protein) Regulations 1999.

Example Indicators for Minimum Standard No. 7 – Feed

- Feed is safe and appropriate for the class of animal (MS 7(a))
- Deer do not suffer from feed-related diseases or disorders (MS 7(a))
- If deer are to be given feed to which they are not accustomed (e.g. supplementary feeds and forage crops), feed is gradually introduced to prevent nutritional and metabolic disease associated with the change in diet (MS 7(a))
- Feed known to be contaminated with toxic levels of fungi, moulds, yeast, bacteria, or chemical residues is not fed to deer (MS 7(a))
- The level of competition at feed sources is low and all animals can access sufficient amounts of feed (MS 7(b))
- Where a deer's BCS is 2 or below, remedial action such as veterinary attention, improved nutrition, altered management practices or humane killing (if an animal's welfare is significantly compromised) is taken (MS 7(c))
- Signs of ill-thrift or emaciation, such as rapid weight loss relative to herd mates, rough body appearance (hair loss) or bullying by herd mates are addressed promptly (MS 7(c))
- The average BCS of all deer rising 2 years and over is 3 (of 5) (see Schedule II – Body Condition Scoring of Deer), with the exception of stags during and shortly after the rut (MS 7(c))
- Body condition scoring is performed by stockpeople with training and knowledge of the method (MS 7(c))
- Supplementary feeds are conserved and stored in a way that ensures feed quality is preserved (MS 7(a))
- Stockpeople understand the risks associated with feeding, especially feeds other than pasture, including nutritional deficiencies and health disorders that might arise from inappropriate feeding (e.g. toxicities or rumen acidosis) (MS 7(a))
- Management strategies are in place to manage risks associated with feeding, and stockpeople understand how to implement these (MS 7(a))
- A plan that is understood by all stockpeople is in place for transitioning animals to winter diets, and for managing animals that do not adapt to the winter diet (MS 7(a))

Recommended Best Practice

a) Feeding methods should be designed to reduce fouling and wastage as deer will not eat muddy or contaminated pasture or crop.

b) Measures should be taken to minimise access of deer, particularly pregnant hinds, to toxic plants and other noxious or harmful materials including:

   i) ragwort
   ii) most garden ornamental plants (e.g. oleander, rhododendrons, azaleas, yew, daphne, laurel, privet, rhubarb leaves)
   iii) twine and plastic wrap (i.e., when feeding baled forage, twine and wrap should be removed to prevent the risk of illness or death from ingestion and to avoid injury from entanglement).

c) There should be enough reserve feed to allow more frequent shifts of deer if it is very wet and the grazed fodder becomes trampled and muddy.

d) When feeding fodder beet, brassicas and/or concentrates, a supplementary source of palatable roughage, such as hay silage, baleage, or barley straw, should be accessible to aid proper digestion.

e) Deer should be allowed to forage and select feed according to individual requirements and preferences and be offered a variety of feed with different tastes and textures providing there is no negative impact on their health and welfare.

General Information

Schedule III presents feeding management tables for different stock classes. The recommended nutrient requirements for young male red deer are shown in Table 2. The guidelines for mature stags and hinds are presented in Table 3.

For fawns and weaners, liveweight monitoring is a more appropriate measure of a feeding regimen's success than BCS.

When feeding alternative forage crops or concentrates, provision of appropriate roughage helps to maintain stable rumen function and minimise the risk of digestive disorders.

Low energy feeds, such as barley straw or baled rank pasture, may not meet minimum feed requirements as the animal cannot eat sufficient bulk to meet daily maintenance requirements.

Feed demands are increased by sustained cold and wet weather and wind chill effects. Feed allowances should be increased by 20 – 30% when deer are in exposed or poorly sheltered conditions in winter.

Adult stags dramatically reduce their feed intake during the autumn rut when they naturally lose up to 30% of their peak body weight. Good quality, high energy feed needs to be made available immediately after the rut to bring stags back to condition quickly. Over winter, stags risk further weight loss and marked decline in BCS unless appropriately fed. This can lead to increased susceptibility to disease. Energy requirements of stags during the post-rut period are high and increase further in bad weather.

During prolonged summer or dry conditions, supplementary feeding for hinds with young at foot (introduced gradually to allow pre-weaning training) will have welfare and growth benefits. If the prolonged summer or dry conditions persist, however, early weaning of calves/fawns should be considered.

4.2 Water

Introduction

The provision of an adequate water supply is critical for maintaining deer health and welfare. The way in which daily water requirements are supplied varies between farms. Different classes of deer have varying water requirements throughout the year, which if not adequately fulfilled can lead to rapid deterioration of animal health and welfare.

Deer prefer to drink clean water and will avoid drinking water contaminated with manure. Water intake and deer health are also impacted by water quality factors such as the temperature, colour, taste and odour of the water, its salinity and the presence of heavy metals, microbes and minerals.

All animals require adequate access to water. Herd hierarchy and social interaction can limit access of individual deer to drinking water. This may be aggravated during hot weather when water consumption will rise and in winter when water may freeze. Stockperson intervention may therefore be required to ensure water is available to all deer. Placement of water troughs, water flow rate and available volume are also important considerations.

Although fawns may only consume small amounts of drinking water while milk feeding, they do need a daily supply of drinking water to support growth and rumen development.

Minimum Standard No. 8 – Water
(a) All deer must have easy access to sufficient palatable and clean drinking water. (b) Water must be provided in such a way as to minimise competition.

(c) Water availability must be regularly checked, and any failures immediately rectified.

Example Indicators for Minimum Standard No. 8 – Water

- Drinking water is palatable and does not contain any contaminants at a level that is harmful to the health of deer or that inhibits deer from drinking (MS 8(a))
- Troughs are regularly cleaned and maintained (MS 8(a))
- Access to troughs is not impeded and troughs are located and managed to reduce mud, manure accumulation and pugging around them (MS 8(a, b))
- For winter grazing systems, drinking water should be readily available in the grazing area and portable drinking troughs (where used) should be as close to the grazing face as possible (MS 8(a, b))
- Deer do not show clinical signs of dehydration, such as skin tenting or sunken eyes (MS 8(a))
- Fawns that are hand reared have access to drinking water from birth (MS 8(a))
- Deer are not gathered at empty troughs or troughs where water flow is inadequate (MS 8(a, b, c))
- Water supply to paddocks is checked to ensure delivery systems are in working order ahead of deer being moved into them (MS 8(a, c))
- Regular inspections are carried out to ensure deer have access to sufficient quantity and quality of water (MS 8(c))

Recommended Best Practice

a) A water quality test should be conducted on any new water sources connected to the farm water supply.
b) High pressure flow systems should be used to allow quick re-filling of water troughs during times of high use.
c) Watering facilities should be designed to reduce fouling of water.
d) Watering facilities should be designed to prevent excessive spillage that could lead to accumulation of water or mud around water troughs.
e) There should be access to drinking water during yarding for normal farming operations (i.e., when deer are being worked in yards during hot weather and/or subjected to stressful events such as weaning, Tb testing, pregnancy scanning or velvetting).

General Information

The daily consumption of water by deer can vary widely according to species, body weight, age, sex, climatic conditions, type of diet and feed intake. Water requirements are greater during hot weather and when feeds with high dry matter content are provided. Conversely, less water is required in cold weather and when food is very wet (e.g. fresh grass or grass silage). Some classes of deer will have significantly increased requirements for water at certain times, for example adult stags during the rut, stags during the first 24 – 48 hours after velvetting, lactating hinds, and weaned deer (up to 10 days after weaning).

Table 4 of Schedule III provides further information on estimated water requirements for red deer of different classes.

Deer may refuse to drink unpalatable or contaminated water (e.g. contains faeces, algae, pathogens, parasites, or excessive salinity, minerals and nutrients), which can lead to reductions in appetite, production and fertility, or even death.

Part 5: Physical Environment

5.1 Shade and Shelter

Introduction

Every animal has a need to remain in a state of thermoneutrality to maintain good welfare; thermal stress therefore presents a significant risk to an animal's welfare. The impacts of thermal stress on animal physiology and behaviour are well documented. Whilst there is currently a knowledge gap as to how thermal stress affects an animal's emotional state, it is reasonable to assume that this too could be impacted. It is therefore incumbent on owners, persons in charge and stockpeople to implement strategies that reduce the effects of thermal stress on the animals under their care.

The Animal Welfare Act 1999 requires the provision of adequate shelter that is relevant to the species, environment and circumstances of the animal, in accordance with good practice and scientific knowledge. A primary consideration of adequate shelter provision is the protection from climatic conditions that may result in an animal exceeding the upper or lower critical limit of its thermoneutral zone. Factors beyond space allowance, such as ventilation, lighting and hygiene can also contribute to the suitability of shelter. Adequate provision of shelter will look different for every farm, depending on the species and class of animal farmed, regional variations in climate and individual farm characteristics. Importantly, considerations of what constitutes adequate shelter needs to be assessed in a group of animals, through considering the individual animals that make up the group. Provision of adequate shelter can include the use of natural or artificial structures (either temporary or fixed).

Other mitigation strategies to manage thermal stress (e.g. access to wallows and additional water during warm weather, or additional feed during cold weather) are acknowledged as important tools in maintaining animal welfare. These strategies all contribute to providing an animal's need for thermal comfort, and mitigating unreasonable and unnecessary pain and distress that may result from thermal stress.

As climate change further impacts the farming environment, an integrated approach that uses shelter and other mitigation strategies will be needed to manage the thermal comfort of farmed animals. Owners and persons in charge need to have a clear plan in place that will enable them to meet the need for animals' thermal comfort in practical, economical ways that are relevant to the animal.

Contingency plans, including for weather extremes, are covered under Part 9: Contingency Planning and need to ensure shelter and shade are provided in adverse weather conditions.

Shelter is important even when environmental conditions are not extreme, for example where female deer seek isolation to give birth and hide their young, or where an animal that is ill wishes to separate itself from the group.

Minimum Standard No. 9 – Shade and Shelter
(a) All deer must be provided with the means to minimise the risk of thermal stress. (b) Where weather or environmental conditions are likely to lead to adverse health or welfare outcomes, prompt remedial action must be taken. (c) Fawns must have access to sufficient ground cover for at least the first 2 weeks following birth, to allow them to express their natural hiding behaviour.

Example Indicators for Minimum Standard No. 9 – Shade and Shelter

- Deer have the means available to them to mitigate heat stress, such as shade, plentiful water, or a wallow (MS 9(a))

- Where signs of heat stress are seen in deer (e.g. open-mouth panting, or extended tongues), remedial action (e.g. provision of additional shade and/or water) is taken and deer condition is monitored until it improves (MS 9(b))
- Deer have the means available to them to mitigate cold stress, such as access to adequate shelter (MS 9(a))
- When signs of cold stress are seen in deer (e.g. shivering, huddling, reduced grazing, listlessness), remedial action (e.g. access to shelter, additional feed) is taken and deer condition is monitored until it improves (MS 9(b))
- Deer have suitable land contour or artificial structures to seek shelter (MS 9(a, c))
- Deer do not suffer from hypothermia or hyperthermia (MS 9(a))

Recommended Best Practice

a) Activities such as mustering, prolonged yarding and transportation should be avoided in hot, sunny and humid conditions likely to result in heat stress.

b) During hot weather conditions, the heat load of animals, especially during the afternoon, should be reduced and comfort maintained by, for example:

   i) avoiding activities (such as moving paddocks) and considering whether these can be done in the early morning or evening.
   ii) for animals receiving supplementary feed, providing the largest daily feed ration in the evening, as rumination increases heat production.
   iii) providing plentiful drinking water, including in paddocks and yards.

c) During cold weather conditions, animal comfort should be maintained by, for example:

   i) providing additional feed.
   ii) providing windbreaks.
   iii) providing insulated bedding.
   iv) providing plentiful drinking water to maintain feed intake.

d) Under intensive winter grazing conditions, deer should have access to a well-drained (i.e. no surface water pooling), sheltered and comfortable lying area.

e) To ensure that animals can cope with their environment, they should have the opportunity to acclimatise to their habitat or local environment before being exposed to the risk of particularly adverse conditions.

f) When limited natural cover exists in paddocks intended for fawning, farmers should place artificial cover (e.g. hay bales, cut tree branches) into paddocks prior to pregnant hinds being moved in.

General Information

Shade and shelter may be provided in a number of ways. These include topographical features such as gullies or hollows (of adequate depth), natural features such as stands of trees or scrub, hedges or shelter belts, and artificial structures such as buildings. Some sites may be unsuitable due to rainfall, poor drainage, steep slopes and/or susceptibility to flooding.

Heat stress can occur due to the combined effects of high ambient temperatures, high relative humidity, exposure to sunlight, and low wind speeds. Warm conditions result in increased blood circulation through the skin, increased respiration rate, postural changes such as lying down, increased water consumption, and behavioural changes such as shade-seeking during warmer parts of the day and grazing at night, dawn or dusk. If the heat load continues to rise, animals will progress to open-mouth panting, and when severe their tongues will be extended. If relief cannot be achieved, core body temperature rises (hyperthermia), and they may die. Temperatures do not have to be extreme to cause heat stress.

Protection from wind chill is an important welfare factor for all deer. Wind chill is the combined effect of wind and cold ambient temperatures, and requires that deer increase their energy demands to maintain normal

body temperature. Rain further compounds the effect of wind and cold, as a wet coat reduces insulation. Body condition also has an influence. Males after the rut, and young stock, have very little fat cover and are more vulnerable to the effects of cold weather.

Research has shown that when ambient temperature is less than 5ºC, deer begin to divert energy from growth and maintenance into heat production. Provision of good shelter during cold weather can reduce feed demands for maintenance by 15 – 20% per day and improve animal welfare.

Mechanisms for heat retention or production during cold conditions include reduced skin circulation, increased metabolic rate and shivering, and postural changes such as sitting or lying down. Where animals are exposed to cold conditions they cannot cope with, their core body temperature drops below the normal range (hypothermia). As hypothermia progresses, they become depressed, listless and may die. Early signs of significant cold exposure in deer include behavioural changes such as shivering and huddling together. Such signs indicate the need for urgent remedial action.

5.2 Farm Facilities, Equipment and Technologies

Introduction

Facilities such as yards, races, restraints and loading ramps need to suit the animals and the husbandry system. Different deer species require purpose-built systems. Properly managed facilities can greatly improve the undertaking of husbandry procedures, resulting in reduced risk of injury and distress to animals and stockpeople.

Modern technologies are increasingly being used on farms. Emerging systems and tools include virtual fencing, wearable collars and use of drones for stock monitoring. The suitability and likely uptake of these for deer farming remains to be seen. While these systems have advantages for stock management (such as increased remote monitoring), there may be risks to animal welfare. Reduced physical contact with animals will impact the relationship between stockpeople and animals, and limit opportunities for inspecting animals directly. There is also a risk associated with some technologies potentially replacing human decision-making. In addition, animals may have to adapt to new technologies. The methods used to familiarise animals with a technology, and an individual animal's inability to learn may impact their welfare negatively.

Minimum Standard No. 10 – Farm Facilities, Equipment and Technologies
(a) Farm facilities, equipment and technologies must be designed, constructed, maintained and used in a manner that minimises the likelihood of pain, injury or distress to deer. (b) Ventilation in all deer facilities must be sufficient to maintain the temperature and humidity at levels that do not cause deer thermal stress and avoids harmful concentrations of noxious gases. (c) All deer facilities must have sufficient light to enable safe inspection and handling of animals. (d) Deer that do not adapt to new technologies must be provided with alternative management.

Example Indicators for Minimum Standard No. 10 – Farm Facilities, Equipment and Technologies

- All facilities, including fences, yards, sheds, housing and races are maintained in good working order (MS 10(a))
- All protrusions, gaps and edges, including damaged flooring, likely to cause injury to deer are promptly removed, repaired or covered in a timely manner (MS 10(a))
- Gates and doors are in good working order. They open and close securely and swing freely. Gate latches do not protrude and risk injury to stock (MS 10(a))
- Electrical cables and fittings are inaccessible to deer (MS 10(a))
- Toxic paint is not used on surfaces accessible to deer (MS 10(a))

- Ceiling heights are at least 2.4 metres (MS 10(a))
- Facilities for deer are designed and constructed so that animals flow freely through the facility (MS 10(a))
- Facility design enables ready evacuation of deer in the case of emergencies (MS 10(a))
- Staff know how to implement emergency procedures (MS 10(a))
- Stockpeople are trained and competent in the correct operation and maintenance of farm facilities, equipment and technologies, and understand how incorrect operation may affect deer under their care (MS 10(a))
- Deer are confident in their movement on walking surfaces and move freely without slipping (MS 10(a))
- Standing areas are covered with material that minimises lameness (MS 10(a))
- Floors are constructed of non-slip material (MS 10(a))
- Automated feed or water delivery systems are regularly checked and any problems promptly rectified (MS 10(a))
- Equipment for administration of veterinary medicines or treatments is fit for purpose and maintained in working order (MS 10(a))
- Ventilation is sufficient to prevent a build-up of harmful concentrations of gases, such as ammonia and carbon dioxide (MS 10(b))
- To facilitate adequate inspection and safe handling, lighting levels are at least 20 lux (MS 10(c))
- Deer that do not adapt to new technologies are managed in a separate mob, or removed from the farm (MS 10(d))

Recommended Best Practice

a) Farm systems and structures should enable positive interactions between animals and stockpeople.
b) Deer facilities should not be built on sites that are prone to flooding or landslides.
c) Pens should allow plenty of space to enable deer free movement, sufficient room to move past each other, turn around, and reduce the likelihood of aggressive interactions.
d) Training methods should enable deer to learn without causing unnecessary distress.
e) Aversive methods for introducing animals to new technologies should not be used.
f) Wearable devices (e.g. collars, halters, headgear) should not cause injury, pain or unnecessary distress.
g) Stockpeople should be able to recognise signs of equipment malfunction and rectify any problem promptly.

General Information

Problems such as lameness or foot damage can arise due to poor maintenance of concrete, slatted or perforated floors, and loading ramps. Damaged feet are at greater risk of developing foot abscesses and chronic illness. High-risk situations for foot damage and foot abscess include fawns around weaning, movement through yards and raceways where sharp rough rock fill material has been used but not compacted, and animals exiting around corners at speed on rough surfaces. Rubber mats are an ideal surface for indoor facilities, but need to be laid properly to avoid debris collecting underneath.

New technologies that will improve animal welfare outcomes are to be encouraged. Any new technology should have consideration for the natural behaviours of the species for which it is intended, with a view to minimising fear and distress when it is first introduced. Technologies that rely on aversive methods for animal learning (e.g. use of electricity) need to be considered carefully before introduction. Individual animals are likely to differ in their responses and learning ability, with implications for their welfare and mental state (e.g. stress, anxiety). Robust protocols therefore need to be in place to prevent animal welfare compromise.

5.3 Off-Paddock Facilities

Introduction

An off-paddock facility is a facility that incorporates a constructed base, and may or may not have a roof or walls. Off-paddock facilities include purpose-built housing barns for deer, stand-off areas or pads (including long-term or wintering pads), and feed pads. Farmers need to be aware that there are additional responsibilities of care for animals kept in these facilities, as the animals are totally dependent on stockpeople for their daily requirements.

While all the principles of animal husbandry outlined in this Code apply in off-paddock situations, off-paddock systems require additional stockpersonship skills and management. The environment, including surfaces and flooring, higher stock densities and the provision of concentrated feeds can all create challenges to animal health and welfare, which may compromise the animals or amplify the effect of any existing problem. Resulting problems may include restrictions on normal behaviour patterns (e.g. reduced lying times), increased risk of aggressive interactions, underfeeding, poor growth rates, and increased transmission of infectious diseases. Frequent monitoring and prompt intervention are therefore required.

Where deer are held in off-paddock facilities, a contingency plan needs to be in place that outlines the procedures for managing emergency evacuations and other situations that require an urgent response. Refer to Part 9: Contingency Planning for further information.

Minimum Standard No. 11 – Managing Deer in Off-Paddock Facilities

(a) Deer kept in off-paddock facilities must be observed at least twice a day, and prompt preventative or remedial action taken to address any problems identified.
(b) Where deer do not have access to natural daylight, artificial lighting levels must be at least 50 lux during the light phase, for a minimum of nine continuous hours and a maximum of 18 hours each day.
(c) If ammonia levels of 15 ppm or more are detected at deer resting height, remedial action must be taken to reduce those levels.
(d) When the facility is in use, automated systems, including those used for feeding, water provision and cleaning, must be checked daily and any problems promptly rectified.
(e) For deer that are kept in housing facilities, the following provisions must also be met:
    i) Non-slip flooring and lying surfaces must allow for effective effluent drainage or removal
    ii) Standing areas must be covered with material that minimises lameness.
    iii) Lying areas have a compressible soft surface or bedding.
    iv) Waste feed and contaminated bedding material do not accumulate to a point that threatens the health or welfare of the deer.
    v) Deer must be familiarised with the facility before being confined to it, and provided with alternative management if they do not adjust.
(f) There must be provision to remove deer that need attention or to quarantine sick individuals.

Example Indicators for Minimum Standard No. 11 – Managing Deer in Off-Paddock Facilities

- Deer can see each other (MS 11(b))
- All deer can lie down and rest comfortably and safely for sufficient periods each day to meet their physical and behaviour needs (MS 11(e))
- Deer do not show signs of exposure to noxious gases (e.g. runny eyes or nose) (MS 11(c))
- Remedial action is taken if animals show signs of exposure to noxious gases (MS 11(c))
- Environmental control systems are monitored and maintained (MS 11(d))
- In case of emergencies, provisions are in place for automated systems, such as a backup power supply or alternative management arrangements (MS 11(d))
- Deer are able to access feed and water without undue competition (MS 11(d))

- Deer are confident in their movement on walking surfaces and move freely without slipping (MS 11(e))
- Waste feed and contaminated bedding is removed before it becomes mouldy or noxious (MS 11(e))
- There is no excessive build-up of manure around feeding and watering areas (MS 11(e))
- If bedding is used, it is good quality, absorbent, with minimal risk of toxic agent contamination and it can be easily broken up (MS 11(e))

Recommended Best Practice

a) Off-paddock facilities should be purpose-built for their intended use.
b) Stocking density should be calculated based on the heaviest animals.
c) Ceiling height should be determined in relation to the size of the deer to allow them to exhibit normal play behaviour (recommended height greater than 3.2 metres).
d) Ammonia levels should be less than 15ppm at resting deer height and hydrogen sulphide, which accumulates above stored manure, should be less than 10ppm. Ammonia test strips should be used to regularly test for environmental ammonia levels.
e) Accumulations of mud or dust should be avoided.
f) Frequent changes of group structure should be avoided.
g) Bedding should be checked daily and topped-up or replaced as necessary.
h) Environmental enrichment practices should be considered and, where used, should not increase the risk of injury to deer. Such practices may include:
    i) the provision of "toys" such as a length of hanging chain, suspended tyres, large plastic balls or containers.
    ii) positive human contact.
    iii) the use of a radio to accustom deer to a range of noises and voices.
i) Deer are not housed for more than 5 months within a 12-month period.

General Information

To achieve good welfare outcomes for deer in off-paddock facilities, expert advice on the design and management of such facilities can be sourced from Deer Industry New Zealand (DINZ), farm consultants and manufacturers.

The minimum area per pen for groups of deer held for longer than 24 hours should be 9 m^2. Larger pens, e.g. greater than 36 m^2, are favoured. As a guide the minimum space allowance, based on body weight and size, should not be less than:

i) 1.2 m^2 per 50 kg weaner increasing to 1.8 m^2 for deer up to 80 kg.
ii) 2.1 m^2 per adult female deer up to 120 kg.
iii) 2.8 m^2 per adult male deer up to 200 kg.

A level of 10 - 15 ppm of ammonia in the air can be detected by smell and an ammonia level over 20 ppm will cause eye and nasal irritation in people. In general, if the level of noxious gases within a shed is uncomfortable for people, it is also uncomfortable for deer, compromises animal welfare, and may predispose deer to respiratory disease and reduced performance.

For light intensity, 50 lux is considered to be sufficient light to read a newspaper at arm's length. Settling of deer is improved by allowing them visual contact with animals in adjoining pens.

Poor growth performance, signs of bullying, hair in the mouth, and bare skin patches are all indicative of welfare issues that require remedial action.

Animals housed for long periods of time become accustomed to routine. Outside influences such as visits from strangers, noise, vehicles and unfamiliar dogs can cause undue stress and should be discouraged.

To avoid thermal stress, deer should not be released from a prolonged period indoors into adverse weather without ready access to shelter and shade. Young deer are particularly vulnerable to heat stress during yarding, extended confinement, and handling.

Part 6: Husbandry Practices

6.1 Identification

Introduction

Individual animal identification underpins good deer farming practices and allows traceability, production recording and selection.

There is a legal requirement to tag all deer within 180 days of age or before they move off farm, whichever comes first. Permanent identification of deer, using ear tags, is mandated through the NAIT (National Animal Identification Tracing) programme. For more information, see https://www.mpi.govt.nz/animals/national-animal-identification-tracing-nait-programme/

Ear marking (also referred to as ear notching) involves cutting a piece of the ear tissue out to create an identification mark. When ear tagging or ear marking deer, care should be taken to ensure that stress and discomfort are minimised by the use of appropriate restraint, the selection and maintenance of instruments, attention to hygiene and the aftercare of animals.

Freeze-branding of deer is relatively ineffective and therefore not used within the industry.

See also the summary of regulations appended to this Code:

- Regulation 55L – Prohibition on hot branding of animals generally.

Minimum Standard No. 12 – Identification
(a) All identification procedures must be applied by a competent operator. (b) If ear marking (or notching) is performed, the ear tissue removed must not exceed the minimum amount necessary to identify deer.

Example Indicators for Minimum Standard No. 12 – Identification

- Permanent tags are inserted using applicators designed for the purpose and according to the manufacturer's specifications (MS 12(a))
- Care is taken when applying an ear tag to avoid hitting the cartilage ridges or major blood vessels (MS 12(a))
- Implements used for ear marking are clean and sharp (MS 12(a))
- Tagging or marking wounds are not infected or swollen, or if so, are treated appropriately (MS 12 (a, b))

Recommended Best Practice

a) Deer should be appropriately restrained when ear tagging is being undertaken to avoid soft tissue damage, as ears tear easily during application with some equipment.
b) There should be only one identification tag per ear, except if the second ear tag is for tick or movement control (e.g., NAIT tags).
c) Ear tagging should be used for identification instead of ear marking.
d) Freeze branding should not be used to identify animals.

General Information

Ear tags for tick control are an accepted addition to the number of tags per ear. In normal circumstances these are inserted on a temporary basis (up to 16 weeks). Thereafter the existing tag holes should be used.

6.2 Selection and Breeding

Introduction

Selecting animals with desirable traits and culling those with undesirable traits is one of the foundations of animal husbandry. Selection objectives are inevitably a balance between animal traits and the ability of husbandry techniques to overcome any compromises. An unbalanced focus on increased production efficiency can be associated with a risk of behavioural, physiological and immunological problems and therefore compromises to animal welfare. Breeding decisions also need to target continued improvements in the biological functioning of the animals (e.g. conformation, disease resistance, heat tolerance) that will lead to better welfare outcomes.

Minimum Standard No. 13 – Selection and Breeding
(a) Selection and breeding decisions must consider animal welfare outcomes. (b) Animals not suitable for breeding are identified and removed from the breeding herd.

Example Indicator Minimum Standard No. 13 – Selection and Breeding

- Selection and breeding decisions include consideration of positive animal welfare outcomes, such as improved temperament, disease and parasite resistance (MS 13(a))
- Selection policies do not include selection for increased productivity (e.g. increasing growth rate, velvet weights, fecundity) if it is known or thought to unreasonably compromise animal health or welfare (MS 13(a))
- Only deer that are fit and healthy are selected for the forthcoming breeding season (MS 13(a))
- Deer that contribute unfavourable genotype or phenotypes are not selected for breeding (MS 13(b))

Recommended Best Practice

a) Selection for resistance to disease should complement, but not replace, other means of ensuring animals are healthy (e.g. providing good nutrition to enable animals to mount good immune responses to pathogens).

General Information

Consideration needs to be given to the potential size of future antler growth when selecting to breed for this particular trait (refer Section 3, (1B) of the Animal Welfare Act 1999). Selection for increased antler size without considering the animal's need for increased body mass to support the additional weight has the potential to create significant negative welfare impacts for stags.

6.3 Mating, Semen Collection and Reproductive Technologies

Introduction

Adult male deer are potentially dangerous at all times, but especially during the rut in autumn.

Pregnancy examinations are used widely to inform management decisions about culling, fawning and managing feed during the hind's dry period. Rectal perforation during transrectal ultrasound scanning is a risk that can compromise welfare and cause death, though is not commonly reported in deer.

Artificial Insemination (AI) and Embryo Transfer (ET) are well-established, viable and practical tools to improve rates of genetic gain within the NZ deer farming industry. For further information, refer to Deer Industry New Zealand (DINZ).

See also the summary of regulations appended to this Code:

- Regulation 59A – Surgical reproductive procedures
- Regulation 59B – Transcervical insemination

Minimum Standard No. 14 – Mating, Semen Collection and Reproductive Technologies
(a) Hinds must be of suitable size, health and condition to experience pregnancy and fawning. (b) Pregnancy diagnosis must be undertaken by a competent person. (c) Stags must be fit and healthy for mating and semen collection. (d) Electroejaculation for semen collection must be carried out by a veterinarian, or a competent operator. (e) Equipment used for electroejaculation must be manufactured for this purpose and must be maintained in good working order. (f) Electroejaculation must be stopped where stags fail to ejaculate after two sequences of electrical stimulation, or the animal becomes distressed, or is at risk of injury. (g) Facilities for semen collection must provide safe restraint to minimise the risk of injury to animals.

Example Indicators for Minimum Standard No. 14 – Mating, Semen Collection and Reproductive Technologies

- Body condition score for mating hinds is 3-4 (out of 5) (MS 14(a))
- Body condition score for mating stags is sufficient to ensure their physiological requirements are met during the intended mating period (MS 14(c))
- To prevent exhaustion, the appropriate number of stags are used for natural mating in a mob (MS 14(c))
- Electroejaculation is stopped when stags show signs of distress, such as excessive heavy breathing or attempting to kick out (MS 14(f))

Recommended Best Practice

a) Where multi-sire mating is practised, it should be closely monitored, and adequate space be provided to minimise confrontation between stags.
b) Stags should be carefully monitored and rotated for use to minimise the risk of debilitating injury.
c) When selecting stags for breeding, consideration should be given to:
    i) the physical size of the stag relative to the hinds to be bred.
    ii) the use of low birthweight sires across maiden hinds.
d) Effective pain relief should be used for stags undergoing electroejaculation when it is practical to do so, to minimise any pain or distress experienced.

General information

The standard gestation period for deer is 233 – 265 days depending on the breed. Mating generally starts around the first week in March for red deer, elk, wapiti and their hybrids and 20 April for fallow deer. Thus, births can be expected from the last week in October onwards.

Sire size appears to have little effect on the incidence of dystocia. Even when a wapiti stag is used over red deer hinds (which can significantly increase fawn birth weights), increases in fawning difficulties are not typically noted. However, it is generally accepted that maiden red deer hinds should not be mated to genetically large sires.

6.4 Milking Deer

6.4.1 Lactating Hinds and Milking Systems

Introduction

In deer milking systems, efficient milking is essential for the good health, welfare and productivity of the hind. The milking process needs to be carried out calmly and with regular routines to create a stress-free environment for the hind. This will ensure that complete milk let-down occurs in the hind before or during milking. Gathering hinds from the paddock, driving along the race, holding them in the yard, and entering and exiting from the milking area are all part of this process.

In deer milking systems, fawns may be removed from their mothers at 2-3 days of age and hand-reared (see Part 6.5.2: Hand Rearing Fawns), or kept at foot for several weeks while the hinds are brought into the milking routine.

Currently, intramuscular oxytocin injections are commonly used to stimulate milk-down in hinds during the full lactation, which differs to the use of oxytocin in dairy cows or sheep, where it is typically restricted to use in the first few days of the first lactation.

Minimum Standard No. 15 – Milking Hinds
(a) Hinds must be milked or suckle fawns frequently enough during lactation to minimise discomfort and maintain udder health. (b) Hinds must be milked in a manner that minimises discomfort or injury and maintains udder health, including appropriate hygiene practices. (c) Milked hinds must be inspected for general health and udder health at every milking by a competent stockperson and remedial action taken where required. (d) Milking equipment must be suitable for deer and well maintained to minimise the risk of damage and infection of the teats and udder. (e) Hinds must be familiarised with the milking facility prior to the milking season. (f) Where oxytocin is injected to stimulate milk let-down: i) Injection sites must be varied daily; and ii) Needle size must be as small as practicable whilst reducing the risk that the needle will break.

Example Indicators for Minimum Standard No. 15 – Milking Hinds

- Any hind with an over-extended udder or other signs of discomfort (e.g. restlessness, heat or pain on palpation) is examined immediately, the cause determined, and remedial action taken (MS 15(a, c))
- Upon inspection of teats and udders, no damage from milking equipment is observed (MS 15(b, c))
- Stockpeople have knowledge of udder health and have procedures in place to recognise and treat problems (MS 15(c))
- The partial vacuum in the milking machine is regularly checked for consistency, and teat-cup liners and the pulsation system function properly (MS 15(d))
- Milking deer are familiarised with milking facilities in a patient manner (MS 15(e))
- Once trained, hinds do not kick out during cup placement (MS 15(b, e))

- Hinds that do not adjust to the milking routine within 2-3 days are removed from the milking mob (MS 15(e))
- A system is in place to track oxytocin injection sites for each animal, to ensure that the same site is not used at every milking (MS 15(f))

Recommended Best Practice

a) Regular routines for milking should be established, in order to minimise or avoid distress.
b) Hinds in milking systems should be milked within 12 hours of separation from their fawns.
c) All lactating hinds, including those being sold or exhibited, should be milked or suckle fawns at least once every 24 hours unless good management practices dictate otherwise.
d) Care should be taken to avoid under- or over-milking.
e) Milking machines should be tested at least once a year and more frequently if the milking process is compromised, as indicated by milking speed, teat damage and/or hind behaviour. All faults should be corrected immediately.
f) In deer milking operations, oxytocin should not be used to stimulate milk let-down unless it has been demonstrated to be necessary.
g) Ongoing need for regular oxytocin use in individual animals should be re-evaluated at the beginning of each milking season.
h) Deer milking operators should focus selection and breeding decisions towards easy-milking individuals, to reduce future reliance on the use of oxytocin.

General Information

Faults in the vacuum level of pulsation systems may cause signs of discomfort in the hind (kicking the cups off and/or constant movement while milking) and/or an increased incidence of sores on the teats.

Where use of supplementary feeds is part of the milking routine, care should be taken to avoid over-feeding. Deer can be sensitive to large amounts of supplements, which may lead to lameness.

Given that the industry is still in its formative stages, those involved are strongly encouraged to adopt milking systems that do not require early separation of fawns from hinds, and allow for the hind-fawn bond to be maintained until natural weaning. The deer milk industry is also strongly encouraged to explore alternatives that reduce the reliance on artificial oxytocin use in milking hinds.

6.4.2 Drying-off Milking Hinds

Introduction

To prepare for their next fawning, hinds in milking systems go through a drying-off process to end their lactation. Individual animals may be dried-off earlier for other farm management reasons (e.g. feed shortages). The aim is to shut down milk secretion and allow the teat canal to seal as rapidly as possible. While a short period of reduced feed intake may assist with this process, the requirements of Section 4 Feed and Water need to be met.

Minimum Standard No. 16 – Drying-off Milking Hinds
The drying-off process must be done in a manner that minimises discomfort, hunger and the risk of mastitis.

Example Indicators for Minimum Standard No. 16 - Drying-off Milking Hinds

- Hinds do not express signs of discomfort throughout the drying off process
- Drying off is done in an appropriate time frame to suit the individual animal and milking regimen
- Hinds are monitored regularly so that any post dry-off infections are identified and treated

Recommended Best Practice

a) For the first three days after dry-off, hinds should be monitored daily for signs of udder pain or swelling, and then again at the end of the first week.
b) Milking hinds that are being dried off should be kept in a clean area to minimise the risk of udder infection.

General Information

Dry-off in hinds occurs between 3 - 7 days once milking ceases. Hinds may be milked less frequently before drying off to assist with discomfort at drying-off. Feeding low-quality diets *ad libitum* may help lower milk yields before dry-off, without causing excessive hunger.

6.5 Fawns and Fawning

6.5.1 Fawning

Introduction

Fawning can be a particularly stressful period for hinds, and all aspects of care, including shelter and provision of feed and water, need to be carefully managed at this time. Feed quality and quantity, together with trace element and mineral status, needs to be taken into consideration to ensure the nutritional needs of lactating hinds are met.

Hinds' natural behaviour is to isolate from herd-mates in search of a suitable fawning site. Disturbances during fawning and inappropriate fawning environments can result in significant fawn losses through mismothering or misadventure. Preferred sites have good ground cover for fawns to hide in and offer the hind good visualisation of her surrounding environment. Competition between hinds can occur if such sites are in short supply so it is important to provide sufficient space and shelter in fawning paddocks.

Stockpeople have to balance the natural tendencies of most animals to give birth undisturbed, with requirements to assist difficult births and attend to moribund animals. It is generally better to leave hinds undisturbed during the fawning period and observe them from a distance using binoculars if necessary.

Minimum Standard No. 17 – Fawning
(a) Hinds must be provided with a suitable environment for the fawning period, including adequate feed, water and environmental cover. (b) Manual assistance of fawning must only be used if a competent stockperson has diagnosed that the fawn is in a suitable position for delivery and the birth canal is unrestricted. (c) If any hind is having difficulty with fawning and the stockperson is unable to resolve the problem, veterinary advice must be sought as soon as possible, or the animal humanely killed. (d) Premature fawns that are unlikely to survive, and fawns that have debilitating congenital defects, must be humanely killed immediately.

Example Indicators for Minimum Standard No. 17 – Fawning

- Fawning paddocks have features that enable hinds to hide their fawns (MS 17(a))
- Hinds are provided sufficient feed to maintain a BCS of 3 - 4 during pregnancy and through lactation (MS 17(a))
- Where fawns require removal from the fawning paddock, this is done with minimal disturbance to avoid fawning problems in hinds yet to birth (MS 17(a))
- Stockpeople have knowledge of fawning problems and how to correct them and have appropriate equipment to assist, or access expert advice (MS 17(b))

- Hinds exhibiting fawning problems are attended to, veterinary help is called if appropriate, or the animal is killed humanely (MS 17(b))
- Animals that have been assisted at fawning and are unwell are treated and medicated appropriately (MS 17(b))

Recommended Best Practice

a) Advanced planning should be undertaken for feed, water and shelter requirements to minimise disturbance during fawning.
b) Hinds should be settled into fawning paddocks for at least 7 – 10 days prior to the start of fawning.
c) Once hinds are set-stocked for fawning, other hinds should not be introduced.
d) First fawning hinds should be managed in mobs separate from older hinds.
e) To minimise fawning losses due to stress from overcrowding, stocking rates should be 7 - 9 hinds/ha for naturally mated hinds and 4 hinds/ha for hinds mated via a synchronised artificial insemination programme.
f) During fawning, mothers and new-borns should not be unnecessarily disturbed or exposed to unfamiliar events, or have routines disrupted.
g) Hinds with young fawns at foot should be inspected at least once every 24 hours to ensure that both hinds and fawns are in good health.
h) Mortality rates at fawning time should be recorded and reviewed.

General Information

In unsuitable paddocks or when the stocking rate is too high, hinds may pace the fence-line, even galloping up and down in an attempt to get away from the herd.

Hinds in good condition at fawning (BCS 3 – 4) are better able to provide sufficient nutrition for their offspring and cope with potential dry summer conditions. In general, unfit and unsettled hinds are more likely to experience fawning difficulties.

Where a hind is having fawning difficulties and needs assistance, she can be directed to an open gate and laneway to be taken to yards for attention. Skilled stock management and a quiet approach is required for this. The risk in intervening, is that more harm is done to new-born hiding fawns and there is a risk of upsetting the social behaviour and integrity of the fawning mob. Prior to attempting this, advice from experienced deer farmers and/or veterinarians should be sought.

The main causes of fawn death are mismothering and misadventure, both of which lead to starvation and exposure of fawns. The natural tendency of the new-born fawn is to seek cover. If this is outside the fence, the fawn may climb through the fence and be unable to return, risking desertion and starvation. Fawning losses can be reduced when paddocks are fenced to prevent fawns escaping, and cover is provided in fawning paddocks.

6.5.2 Hand Rearing Fawns

Introduction

New-born and young animals are particularly vulnerable to poor welfare due to adverse environmental conditions and poor management. The requirements of other Parts of this Code must be met to ensure that hand-reared fawns are well-managed and housed appropriately (in particular, see Part 4: Feed and Water and Part 5: Physical Environment). All fawns require special attention to ensure they are healthy and to allow their individual needs to be assessed.

In deer milking systems, fawns may be removed from the hind at 2 - 3 days of age and hand reared. Consideration of the health of the hind, and the need to be milked regularly are referred to in Section 6.4.1: Lactating Hinds and Milking Systems.

Colostrum is produced by the hind after fawning and contains special nutrients and antibodies that are essential to protect the fawn from disease. The new-born fawn absorbs antibodies from colostrum, but begins to lose this ability from about six hours after birth. In addition, the concentration of antibodies in the hind's colostrum decreases rapidly within the first 24 hours after birth. Note that antibodies cannot be absorbed by the fawn beyond 24 – 36 hours after birth and so colostrum needs to be fed as soon as possible after birth.

A new-born fawn does not have a functional rumen, and therefore needs to be given liquid feeds until the rumen has developed sufficiently to allow it to utilise solids as its sole source of nutrition.

Minimum Standard No. 18 – Hand Reared and Orphan Fawns

(a) New-born fawns to be hand reared must receive sufficient colostrum or a good quality commercial colostrum substitute in a timely manner.
(b) Fawns must be given suitable liquid feeds until the rumen has developed sufficiently to allow them to use solids as the sole feed source.
(c) Stockpeople feeding fawns by tube must be trained and competent in the procedure.
(d) Equipment for handling, storing and feeding liquid feeds must be kept clean to prevent contamination.
(e) Fawns must be checked at least twice daily for signs of ill health and provided with treatment as necessary.
(f) Fawns must be provided with fresh palatable water from birth.
(g) Fawns must have daily access to appropriate solid feed from 2 - 3 weeks of age to promote rumen development.

Example Indicators for Minimum Standard No. 18 – Hand Reared and Orphan Fawns

- Stockpeople understand the importance of colostrum and are trained to provide it when a fawn has not received it in sufficient amounts (MS 18(a))
- New-born fawns to be hand reared receive colostrum from the dam or first milking colostrum/colostrum substitute as soon as possible after birth (MS 18(a))
- Colostrum is added to warmed deer milk for feeding, and is not overheated or microwaved as this will destroy the beneficial antibodies (MS 18(b))
- Fawns receive their liquid feed requirements in at least 4 meals each day for the first 4 weeks of age (MS 18(b))
- Stockpeople recognise if a fawn is not receiving adequate feed and remedy the situation (MS 18(b, e))
- Milk replacers are nutritionally balanced to meet the fawns' needs and fed in a manner that ensures Minimum Standard No. 7 – Feed is met (MS 18(b))
- Fawns do not show signs of clinical dehydration (e.g. skin tenting or sunken eyes) (MS18(b, e))
- Fawn growth rates are appropriate (MS 18(b, g))
- Fawns are not weaned until they can meet their nutritional requirements from solid feed (MS 18(b, g))
- All feeding equipment, including teats, buckets and milk feeders, is cleaned thoroughly after use (MS 18(d))
- Colostrum and milk intended for fawns are stored in a manner that excludes pests and contaminants (MS 18(d))

Recommended Best Practice

a) Fawns to be hand-reared from milking hinds should be kept with the hind for the first 24 - 48 hours of life, to allow them to naturally receive colostrum.
b) The concentration of milk replacer should be increased over time, to mimic changing milk composition from the hind that occurs over lactation.
c) Liquid feeds should be warm (30 – 33°C), but not above the fawn's normal body temperature.

d) Unused/excess colostrum should be kept refrigerated or preserved (but not frozen), until shortly before it is needed, to preserve antibody levels.
e) Fawns should be kept with hinds until weaning.

General Information

Stockpeople need to ensure each fawn is fed sufficiently, and recognise signs of inadequate nutrition. Hinds typically leave fawns for periods of time, during which fawns will remain quiet and hidden from potential predators. Therefore, unlike the young of other farmed species, fawns do not display active feed-seeking behaviours such as vocalisation.

Deer milk contains lower levels of lactose than other farmed species. It is preferable to feed multiple smaller volumes to larger less frequent ones, as this helps to reduce the amount of lactose ingested by the fawn at any one time.

Colostrum, either fresh or stored, can provide local immunity in the gut and is a highly digestible, high quality food. Planning for fawning includes ensuring that stocks of colostrum or a suitable substitute are on hand to supplement fawns, if necessary. Cow colostrum, ewe colostrum, or commercial dried whole colostrum may be used if deer colostrum is unavailable. Hind vaccination programmes, e.g. clostridial vaccines to boost the level of antibodies in colostrum, may be considered. These practices should be discussed with a veterinarian.

Hygienic practices are required for the maintenance of feeding equipment, bedding material and toileting areas to keep fawns healthy. When fawns are fed in groups, care is needed to ensure that all fawns, even the slowest drinkers, are consuming what they need.

Fawns require manual stimulation to defaecate for the first 2 - 3 weeks of life. A soft, damp cloth can be used to gently wipe the area under the tail after feeding to stimulate defaecation reflexes.

6.6 Weaning

Introduction

Weaning is a highly stressful time for hinds, but more particularly for fawns. For management reasons this generally occurs well before natural weaning in the wild, where suckling often continues until the fawn is at least 7 months old.

Management of weaning requires particular care, handling and husbandry. Farmers have the choice of weaning at a young age, pre-rut (February/March), post-rut (May/June) or later. Each has its advantages and disadvantages. For example, weaning pre-rut removes a source of nutrition (milk) from the fawn and imposes a separation stress, but has the advantage of improving dam growth and mating management due to a rising plane of nutrition. Delaying weaning until the winter may mean less favourable weather and pasture conditions, but reduces the stress of separation and may allow better weaner growth in the interim.

The following minimum standard applies to all fawns, whether reared naturally by the hind or hand reared.

Minimum Standard No. 19 – Weaning
(a) Fawns must not be weaned until the rumen has developed sufficiently to allow it to utilise solids as the sole feed source, and must not be weaned at less than 6 weeks of age. (b) Weaning must be managed in a way that minimises stress on the hind and fawn and minimises negative impacts on their health and welfare. (c) Weaned deer must be inspected frequently to check for signs of ill-thrift, injury or stress, and where appropriate remedial action must be taken to ensure the welfare of the deer.

Example Indicators

- Weights at weaning are in line with recommended industry averages for the species (MS 19(a))
- Stress at weaning is minimised by calm, efficient movement of hinds and fawns through the shed/yards (MS 19(b))
- Newly weaned fawns are provided with familiar feed in the days after weaning (MS 19(b))
- Newly weaned fawns are monitored daily for the first week after weaning (MS 19(c))

Recommended Best Practice

a) Fawns should be a minimum of 12 weeks old before weaning.
b) Weaning should be carried out in fine settled weather.
c) As far as practicable, newly weaned fawns and hinds should be kept out of sight and sound of each other.
d) Weaning should only involve separation of the hind and fawn, with minimal handling.
e) Fawns should be weaned into an environment that they are familiar with.
f) Adding a small number of well-behaved older hinds ("auntie" hinds) to a group of newly weaned deer may aid in settling the fawns and helps with handling, and shifting from paddock to paddock.
g) If operations like ear tagging, vaccination and drenching are undertaken, these should be completed at least 2 - 3 weeks before weaning to avoid additional stress at the time of separation.

General Information

Frequent inspections help management routines and condition deer to contact with stockpeople.

Feeding supplements to hinds and fawns a few weeks before weaning accustoms fawns to feed, farm and stockpeople routines. Continuing with the routine and feeding supplements over the weaning process can be helpful in reducing the stress of separation.

Confining the fawns in deer yards for a few days with shade, shelter, water and high quality, familiar feed can reduce stress responses to weaning that are otherwise seen in the paddock, but requires a degree of care in the maintenance of facilities and in feeding and contact in holding facilities.

6.7 Painful Husbandry Procedures

Introduction

Deer may undergo husbandry procedures for a variety of reasons, including to aid identification, to enable easier management, or to minimise the risk of injury to other animals or humans.

Castration of male deer is not routinely undertaken on New Zealand farms, as it negatively impacts on venison and velvet production. Veterinary advice should be sought if there are queries about castrating deer.

If painful husbandry procedures are performed, they need to be performed by a competent person. A competent person is someone experienced or trained in the correct use of the method being used; skilled enough to carry out the procedure; uses the correct equipment for the procedure; and is able to recognise early signs of distress, injury, or ill health.

Where pain is caused by management procedures, pain relief should be used for animals. Provision of some forms of pain relief in deer presents additional challenges, given there are currently no non-steroidal anti-inflammatory drugs registered for use on deer in New Zealand. Those in charge of deer should seek guidance from their veterinarian about appropriate use of pain relief wherever possible.

Animals should not show behaviours that indicate they are suffering from post-procedural pain. Indicators of post-procedural pain can include abnormal postures, abnormal gaits, restlessness, foot stomping, kicking, rolling, tremors, vocalising, rubbing or licking an affected area, or changes in patterns of activity such as time spent lying down, walking, or suckling.

Some painful husbandry procedures are considered significant surgical procedures. Section 16 of the Act sets criteria for whether a procedure carried out on an animal is a significant surgical procedure:

16 Criteria to determine whether procedure is significant surgical procedure

If any person has to determine whether a procedure carried out on an animal is a significant surgical procedure under this Act, the person must determine the question by considering the following criteria:

- *a) whether the procedure has the potential to —*
  - *i) cause significant pain or distress; or*
  - *ii) cause serious or lasting harm, or loss of function, if not carried out by a veterinarian in accordance with recognised professional standards; and*
- *b) the nature of the procedure, including whether this involves —*
  - *i) a surgical or operative procedure below the surface of the skin, mucous membranes, or teeth or below the gingival margin; or*
  - *ii) physical interference with sensitive soft tissue or bone structure; or*
  - iii) *significant loss of tissue or loss of significant tissue.*

Only a veterinarian, or a veterinary student under the direct supervision of a veterinarian, is able to perform a significant surgical procedure, unless a regulation says otherwise.

For all animal welfare regulations please see www.legislation.govt.nz. Note that not all of the surgical procedures included within these regulations meet the criteria of a significant surgical procedure, some have been regulated for clarity only.

6.7.1 Velvet Antler and Pedicles

Introduction

Antlers are defined as the appendages which grow annually from the pedicle formation of the frontal bone of the male deer. They are therefore unlike the horns of cattle or sheep, which do not regrow if removed correctly. Two stages of antler development are recognised: velvet antler and hard antler. The annual cycle of antler development is regulated by the annual testicular and testosterone cycle, which in turn is governed by daylight length.

Velvet antler is defined as growing antler that contains an abundant blood and nerve supply, and which has a fully intact skin with a covering of soft fine hair. The surgical removal of velvet antler without some form of anaesthesia will cause pain and distress to the stag. Velvet antler removal is a significant surgical procedure, and is specifically covered in the Animal Welfare (Care and Procedures) Regulations 2018. Hard antler is covered in section 6.8 of this Code.

Stags may encounter injuries in the paddock or during yarding that can damage or fracture velvet antler or the pedicles (extensions of the skull that support the antlers). While velvet antler and pedicle injuries are relatively uncommon, they are painful and as such should receive urgent attention.

Removal of broken or damaged velvet antler can be undertaken in line with the requirements of Regulation 58C of the Animal Welfare (Care and Procedures) Regulations 2018. Removal of pedicles is a significant surgical procedure. As such, removal of damaged pedicles requires a veterinarian.

See summary of regulations appended to this Code:

- Regulation 58C – Velvetting deer antlers

Minimum Standard No. 20 – Velvet Antler and Pedicles
(a) When velvetting, stags must be managed in such a way that blood loss is minimised. (b) Animals must be checked for signs of post-operative complications, including pain and distress, and appropriate remedial action taken as required. (c) Damaged pedicles must only be removed by a veterinarian.

Example Indicators for Minimum Standard No. 20 – Velvet Antler and Pedicles

- Tourniquets are applied to pedicles prior to velvetting and are removed as soon as bleeding is controlled (MS 20(a))
- Stags are handled calmly from yarding to release, to minimise stressful activity and associated blood loss (MS 20(a))
- Wounds are not bleeding excessively (MS 20(a, b))
- Newly velveted stags are monitored at regular intervals on the day of the procedure, and at least once daily for 48 hours after the procedure (MS 20(b))
- Wounds are clean and not infected or swollen or are being treated appropriately (MS 20(b))
- Deer do not show signs of pain or distress e.g. vocalisation, panting, abnormal behavioural patterns (MS 20(b))
- Veterinary advice is sought when a damaged pedicle is identified (MS 20(c))

Recommended Best Practice

a) Additional longer-acting pain relief should be provided to stags to extend analgesia beyond the velvetting procedure.
b) Where possible, stags that are remaining on farm after velvet removal should not be brought into the shed again in the first 24 hours after velvetting.
c) Stags with broken pedicles should have excess velvet removed and remain on the farm until such time as the pedicles heal and become stable.

General Information

Deer need to be appropriately restrained or controlled during velvetting to prevent harm to themselves or those around them. This is achieved by using either properly designed physical restraints or chemical agents.

Regulation 58C restricts the practice of velvetting deer antlers to veterinarians who have the relevant expertise and practical experience to perform the procedure, a veterinary student under the direct supervision of an experienced veterinarian, or the owner or employee of the owner who has authorisation to perform the procedure from the National Velvetting Standards Body (NVSB) or a veterinarian.

Veterinarians who do not have the relevant expertise and practical experience to velvet deer should contact an experienced colleague, the Deer Special Interest Branch of the New Zealand Veterinary Association or Deer Industry New Zealand (DINZ) for advice.

The NVSB operates a certification programme that allows farmers or their employees to velvet deer under the supervision of a Supervising Veterinarian. The programme covers the legal and ethical responsibilities of famers and all practical elements of velvet removal. Information about the programme is available on the DINZ website.

6.8 Management of Hard Antlered Male Deer

Introduction

Hard antler occurs when velvet antler growth has ceased, calcification has occurred, and the skin, nerve, and blood supply are no longer functional. Hard antler can be removed above the pedicle without causing any pain or bleeding.

As antler naturally hardens close to the time of the annual rut, male deer in hard antler need to be handled with special care to ensure their safety, the welfare of other male deer and that of their handlers. Stockpeople also need to ensure that the presence of hard antler does not impede an animal's ability to access critical resources such as food and water.

See summary of regulations appended to this Code:

- Regulation 30 – Prevention of injury
- Regulation 31 - Transport of animals with horns and antlers

Minimum Standard No. 21 – Management of Hard Antlered Male Deer
(a) Male deer with hard antler must be separated from male deer without hard antler, especially during the rut, to avoid risk of injury. (b) Persons in charge of deer must develop management practices to cater for the welfare needs of male deer with hard antler, including access to feed, water, and adequate space allowance.

Example Indicators for Minimum Standard No. 21 – Management of Hard Antlered Male Deer

- Access to feed and water are not impeded by the presence of hard antler (e.g. water troughs are placed away from fence lines to avoid hard antler getting entangled) (MS 21(b))
- All areas where hard antlered male deer are to be held are free of hazards likely to cause entanglement with antlers (e.g. loose wire, twine, or baleage wrap) (MS 21(b))

Recommended Best Practice

a) With the exception of trophy stags, hard antler or regrowth on adult male deer should be removed by 1 March to ensure the safety, welfare and health of deer and stockpeople.
b) Any male deer retained in hard antler over the rut / winter period should be established in their selected mobs prior to hardening of the antler (i.e., before 1 March).
c) Where space allows, hard antlered male deer should be run together in separate age group mobs (i.e., yearlings, 2-year-olds, 3-year-olds and mixed age or adults).
d) When yarded, those male deer with hard antler should be penned singly in facilities that limit movement or space.
e) All anticipated handling activities involving male deer (e.g. Tb testing, drenching, weighing) should be managed in advance of antler growth.
f) Yards should be designed to provide secure separation of handlers from hard antlered male deer, while allowing proper control of animals. A minimum of 2 appropriately trained people should be present at all times.
g) Feeding out of supplements to adult hard antlered male deer should be managed to ensure separation between individuals (i.e., individual heaps or multiple rows rather than continuous rows). Static feeders should be at opposite ends of the paddock to water supplies.
h) The use of temporary electric fencing to contain adult hard antlered male deer should be avoided.
i) Hard antlered male deer should be provided with materials that they can rub their antlers on, to facilitate the shedding of antler velvet.

j) Once casting of hard antler begins (August), male deer in mobs should be provided with sufficient areas to allow natural separation from each other, while maintaining adequate access to feed and water.

General Information

Hard antler that has been cast should be collected and removed from paddocks to avoid it becoming a hazard to animals and stockpeople. When cutting hard antler, angled cuts should be avoided so that sharp points are not left behind, as these are an injury risk to other animals and people.

6.9 Pre-transport Selection and Management

Introduction

Appropriate preparation of animals can help them cope with the stress of transport. Owners and persons in charge should also consult the Code of Welfare: Transport within New Zealand and the Animal Welfare (Care and Procedures) Regulations 2018, to ensure they are meeting their obligations. The deer industry's DeerQA Transport Programme can also be consulted.

Good stockpersonship and patience are essential aspects of yarding, selecting and loading deer for transport. Good design of yards, loading ramps and other associated services helps facilitate loading and unloading with minimum distress and risk of bruising or other injuries.

Owners and persons in charge of animals need to ensure that animals are fit for the intended journey. This will require awareness of anticipated travel times and distances. Good communication between owners/persons in charge, stock agents, transporters, and other relevant parties is strongly encouraged to ensure that animals selected for transport can be appropriately prepared.

A veterinarian should be consulted where any doubt exists about the condition of an animal. A veterinarian can examine the animal and certify its fitness for transport if appropriate. All conditions on the certificate need to be complied with, for example the stated destination of the animal.

See summary of regulations appended to this Code:

- Regulation 30 – Prevention of injury.
- Regulation 31 – Transport of animals with horns and antlers.
- Regulation 32 – Prevention of back-rub.
- Regulation 39 – Restrictions on transporting animals with injured horns or antlers.
- Regulation 40 – Restrictions on transporting lame animals.
- Regulation 41 – Restrictions on transporting animals in late pregnancy.

Minimum Standard No. 22 – Pre-transport Selection and Management
(a) Deer must be examined prior to transport to ensure that all animals are fit enough to withstand the intended journey without suffering unreasonable or unnecessary pain or distress. (b) Fawns must not be selected for transport to auction or saleyards until at least 10 days after weaning unless retention on farm presents a risk to their welfare. (c) Deer must have access to water until yarding prior to transport.

Example Indicators for Minimum Standard No. 22 - Pre-transport Selection and Management

- All animals selected for transport are fit and healthy and can support their weight on all four limbs (MS 22(a)).

- Adult deer with a body condition score of 2 or less (out of 5) are not transported without a veterinary certificate (MS 22(a, b))
- The owner or person in charge knows the details of the intended journey (destination and expected travel times) and has ensured that the deer have received appropriate pre-transport preparation, e.g. adequate rest after mustering, water availability during holding, provision of feed if indicated) (MS 22(a, b))
- Any animal showing signs of lameness, injury, clinical signs of dehydration, clinical signs of systemic disease, pain, distress or excessive aggression is not selected for transport (MS 22(a, b))
- Hinds do not have a distended and/or leaking udder during transport (MS 22(a, b))
- Antler length (hard or velvet) does not exceed 110mm when measured in any direction from the centre of the skull between the pedicles (MS 22(b))
- Deer are not held in yards without access to water for more than 4 hours before being loaded for transport (MS 22(c))

Recommended Best Practice

a) To minimise stress, deer being transported with other species should be loaded last and unloaded first.
b) Pregnant deer should not be transported after 1 October. See the DeerQA Transport Programme.
c) Veterinary advice should be considered if transporting pregnant deer after 1 September.
d) Deer should be yarded without feed for a minimum of 4 hours before transportation but for no more than 12 hours.
e) Deer should be drafted and held in mobs of similar body size well in advance of being loaded onto the transporter.
f) All deer being transported should meet the requirements of the DeerQA Transport Programme.

General Information

Pre-transport preparation includes advanced consideration of mustering, mixing of animals, and provision of feed and water.

Mustering over long distances in the days prior to transport should be avoided. Allowing deer a period of time to settle in the yards before being loaded for transport provides them an opportunity to rest before the journey, and can improve the ease of loading. Where possible, unfamiliar deer should not be mixed immediately prior to transport as this can be stressful (see Section 3.2: Mixing of Deer).

Experience suggests that deer are less stressed and travel better when there has been a period of feed restriction prior to transport. Four to six hours of feed withdrawal is a commonly accepted period.

Special attention needs to be paid to transporting deer in hard antler. Information and requirements can be found in the Code of Welfare: Transport within New Zealand, and the DeerQA Transport Programme.

6.10 End-of-Life Management

Introduction

Deer are culled for various reasons including reproductive failure, lameness, mastitis or other ill-health. An effective animal health plan (Part 7: Disease and Injury Control) will assist with maintaining the health and fitness of animals, enable early identification and treatment of sick or injured animals, and reduce culling rates.

Culling decisions should be made early to prevent animal welfare issues from developing or worsening. This is especially relevant where cull animals are transported off farm for sale or slaughter. Although a cull animal

may appear fit for transport, there may be unidentified conditions that could compromise its welfare during transport or in lairage at processing premises.

Requirements for killing animals on-farm are set out in Section 8: On-farm Killing, and requirements for the preparation of cull animals for transport are set out in Section 6.8: Pre-transport Selection and Preparation.

Minimum Standard No. 23 – End-of-life Management
Animals to be culled must be identified in a timely manner so they can be selected and appropriately prepared for transport.

Example Indicators for Minimum Standard No. 23 – End-of-life Management

- Cull animals to be transported are fit and healthy for the intended journey

Recommended Best Practice

a) Persons in charge of deer should identify decision trigger points to ensure culling decisions are made early and with the animals' welfare in mind.
b) An end-of-life management plan for cull deer should be developed, and should outline:
    i) the factors to be considered when deciding which animals to cull.
    ii) the selection and preparation of animals that will be transported off the farm.
    iii) information on how animals that are unsuitable for transport will be managed.
c) An end-of-life management plan may form part of the animal health plan and welfare assurance system.

Part 7: Disease and Injury Control

Introduction

To ensure deer welfare, owners, persons in charge, and stock people need to be familiar with normal deer behaviour, the signs of good versus ill health, and common diseases affecting deer. Injury and disease negatively affect animal welfare by causing discomfort, distress and/or pain. Growth, reproduction and production can also be impacted. Regular surveillance and early identification of ill-health in livestock is crucial for successful diagnosis and treatment. Situations of particular importance include:

- when hinds are fawning (from a distance, taking care not to cause disturbance)
- when animals are being grazed on restricted areas, including during intensive winter grazing
- when nutritional conditions, such as bloat, ryegrass staggers, or nitrate poisoning or other potentially toxic feed problems are likely to occur
- when receiving treatment for a disease or disorder
- when natural hazards are present
- during adverse events

Healthy deer have a good appetite, and are active and aware. Early signs of distress or disease include separating from the mob, fence pacing or lethargy. Sick individuals are often chased from the mob if they attempt to re-join.

Pain has a strong negative impact on the welfare of deer. It is important that steps are taken to provide pain relief where a condition is causing pain. Pain relief improves health outcomes and quality of life. People in charge of deer should seek up-to-date advice from their veterinarian on effective pain management, and stockpeople should be trained to identify pain-related behaviours.

Prevention of ill-health or distress is much better than cure. Preventative measures include having an animal health programme, complete and balanced feeding, good facilities, good stock management and an understanding of the animal's physical and mental needs. Whilst there are currently few options for selecting disease resistant traits in deer, these may develop over time and should be utilised where appropriate (see also Recommended Best Practice 6.2a).

People responsible for deer need to be aware of emerging health issues that may arise due to climate change. The geographical range of parasites (e.g. cattle ticks) and other pathogens (e.g. facial eczema spores) is anticipated to expand further south with the advent of warmer conditions.

Minimum Standard No. 24 – Disease and Injury Control
(a) Stockpeople and persons in charge of deer must be competent in the prevention, identification and treatment of ill health or injury, and take remedial action as appropriate. (b) Veterinary medicines must only be used in accordance with registration conditions, manufacturers' instructions or veterinary advice. (c) Veterinary advice must be sought, or deer humanely killed, where there is any significant injury or disease, chronic pain, persistent ill-thrift, or poor performance that does not respond to treatment or where there is concern for the animal's welfare. (d) Deer that are unlikely to survive must be humanely killed at the earliest opportunity to prevent unnecessary or unreasonable pain or distress.

Example Indicators for Minimum Standard No. 24 – Disease and Injury Control

- Stockpeople are familiar with the more common health problems of deer, and observe their stock carefully for early signs of disease including isolation, pain, discomfort and weight loss (MS 24(a))

- Sick or injured deer are treated immediately or euthanised by a stockperson with the appropriate skills and knowledge (MS 24(a))
- The incidence of specific common diseases is at, or below, an acceptable industry level (MS 24(a))
- Risks of water-borne disease to deer are minimised (MS 24(a))
- Frequency of inspections are increased during adverse weather, outbreaks of disease, during fawning, or during velvet antler growth (MS 24(a))
- Biosecurity protocols are in place to reduce the risk of contagious disease spread and manage any outbreaks appropriately (MS 24(a))
- Animal health records show that all animal remedies have been used appropriately and adverse reactions to drugs are recorded and reported to the farm's veterinarian (MS 24(b))
- Accurate records are kept of the health history of the animals, the treatments they have received euthanasia and unassisted deaths (MS 24(c))
- A veterinarian is consulted when a significant animal health problem persists (MS 24(c))
- The farm's veterinarian is familiar with the species and the farming operation (MS 24(c))

Recommended Best Practice

a) Owners and stockpeople should keep up to date with disease of deer, preventative strategies, and available treatments.
b) A documented animal health and welfare plan should be in place and implemented, and should be updated regularly under veterinary guidance.
c) The documented animal health and welfare plan should include:
    i) A health monitoring programme with regular inspections and data analysis to allow identification of patterns of endemic disease, assessment of treatment success, and identification of emerging diseases.
    ii) Disease prevention measures such as vaccination programmes, anthelmintic treatment for all ages and classes of deer on the farm, and for any diseases of importance for human health, such as leptospirosis or yersiniosis.
    iii) Consideration of when pain relief should be used.
    iv) Consideration of trace element supplementation.
d) Post-mortems should be carried out on fatalities to assist in monitoring the health of the mob.
e) Dead animals should be appropriately disposed of as soon as possible.
f) When disease occurs, a veterinarian should be consulted to determine the appropriate treatment for the problem.
g) Animals in difficult situations (e.g. stuck, entangled in fences) should be extricated first, then assessed for an underlying health issue.
h) To ensure animals can cope with their environment, they should be fit and in good condition, and therefore less vulnerable to ill-health and disease.

General Information

Signs of illness in deer may include separation from the group; loss of appetite; elevated temperature; lameness; discharge from eyes, nose or vulva; changes in colour or texture of coat; changes in the appearance and consistency of urine or faeces (e.g. straining or scouring); shivering; sneezing; rapid or irregular breathing; persistent coughing or panting; weight loss; abdominal distension; lack of coordination; seeking cover; seeking water; abnormal behaviour; excessive salivation; unusual aggression; and swollen navels, udders, joints or jaws.

An integrated approach to health and parasite issues is the key to managing them effectively. This requires good pasture and stock management, monitoring techniques, selection of resistant genotypes and strategic use of anthelmintics and other treatments. In many areas of New Zealand, ticks and liver fluke are an increasing problem and should be controlled by grazing management and appropriate treatment of deer. Organic systems present special challenges to health management and may require particular attention to the effects of parasitism.

Animal health plans should address strategies to provide opportunities for positive welfare experiences. They should include health-related aspects such as prevention and management of diseases and injury, medication including pain relief, responses to persistent/chronic pain, appropriate use of antibiotics and strategies for reduced use, and genetic selection.

Contagious diseases of deer are caused by bacteria, viruses, fungi or parasites. Infectious agents can be transmitted by direct contact with infected animals or via the environment, humans, machinery, and vehicles; vectors such as possums; and via eating or drinking contaminated or poisonous food or water. Precautions should be taken to avoid and restrict the spread of diseases.

Conditions which are painful and warrant immediate and effective treatment include (but are not limited to) damaged or broken velvet and pedicles, serious injury, severe haemorrhage, deep or infected wounds, bone fractures, lameness, severe or chronic inflammation or damage to the eye and surrounding structures.

Antibiotics should be used in a responsible manner to minimise anti-microbial resistance development and alternative effective treatment methods should be considered in preference to their use. For example, antibiotics should only be used to treat lameness where evidence of infection exists.

All stockpeople should observe veterinary advice for withholding periods, as many veterinary medicines used in deer are used off-label. Good record-keeping of treatments used lessens the risk of residues entering the supply chain.

Part 8: On-Farm Humane Killing

Introduction

The humane destruction of deer may occasionally be required because of injury, disease, emergency or for other reasons. People in charge of deer need to be prepared for these situations, with adequate skill and knowledge to use a method that is appropriate to the animals being killed.

Humane killing depends on rapidly inducing insensibility (when an animal is in an unconscious and unrousable state), followed by cessation of brain activity as quickly and painlessly as possible, with death ensuing soon after. Insensibility can be achieved by stunning methods that result in sufficient brain damage, such as a shot from a firearm or captive bolt. All stunning methods must result in immediate loss of consciousness in the animal. If the stunning method is reversible (i.e., if the animal is able to recover consciousness after a period of time), brain function needs to be stopped by another means. This may be achieved by:

- severing the major arteries supplying the brain and/or sticking the major blood vessels in the chest and heart
- pithing
- a secondary shot from a firearm

The period of insensibility needs to continue until death occurs. The overriding consideration during on farm humane killing is to prevent the animal from suffering further pain or distress. Signs of insensibility include immediate collapse, involuntary muscle movement (e.g. kicking, seizures), no blinking if the surface of the eye is touched, dilated pupils and no regular rhythmic breathing.

Death is confirmed when there are no signs of regular, rhythmic breathing, no blinking when the surface of the eye is touched, and the pupils are fixed and dilated, and there is no sign of a heartbeat. Animals need to be checked immediately for these signs, and rechecked in 3 - 5 minutes. If signs of life are seen, immediate remedial action must be taken, such as shooting the animal again using a different placement or carrying out a secondary procedure to ensure death.

Minimum Standard No. 25 – On-Farm Humane Killing
(a) Prior to death, deer must be handled, restrained and killed in such a manner as to minimise unreasonable or unnecessary pain and distress. (b) Persons undertaking humane killing must be knowledgeable and competent in the handling and killing of deer. (c) Deer must be immediately rendered insensible and remain in that state, until death. (d) Deer rendered insensible but not killed must receive a secondary procedure to ensure death occurs before recovery from stunning. (e) Deer must be monitored until death is confirmed. (f) The spinal cord must not be severed or broken until after an animal is dead.

Example Indicators for Minimum Standard No. 25 – On-Farm Humane Killing

- Deer do not show signs of distress (e.g. voluntary vocalisation, severe escape behaviour) caused by stunning and killing (MS 25(a, b))
- Equipment used to undertake humane killing is well maintained in order to operate efficiently (MS 25(a))
- Deer are checked immediately for signs of insensibility (MS 25(c))
- Where signs of life are seen, deer are subject to a follow-up procedure to ensure death (e.g. severing of major vessels) (MS 25(d))

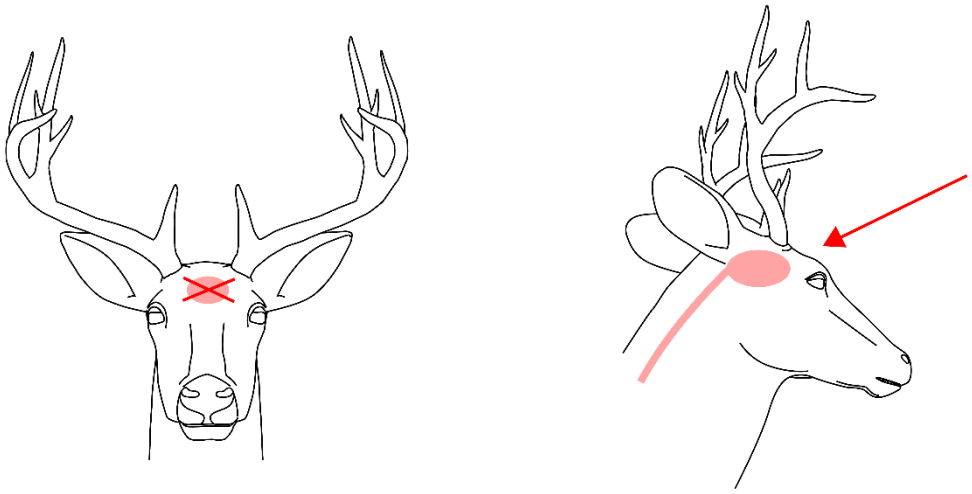
- Deer are checked as soon as possible after the follow-up procedure to ensure they are dead (MS 25(e))

Recommended Best Practice

a) Only appropriate calibre captive bolts and firearms should be used to humanely kill deer.
b) Wherever possible, emergency humane killing should be conducted discreetly and at a site distant from other animals, so as not to cause anxiety to other animals.

General Information

The correct shot position is illustrated in Figure 1 below:



A **B**

Figure 1: Correct placement of shot or captive bolt in deer. Figure 1A shows the point of aim is located in the centre of a cross in the middle of the forehead, where each imaginary line runs from the middle of each eye to the top of the opposite ear. Figure 1B shows that the angle of the shot should be directed through the brain stem.

The calibre of the firearm should be appropriate for the size of the animal, accounting for differences in skull thickness due to factors such as age and sex. Whenever a firearm is used, it is very important that the operator is competent to use it and takes care in ensuring the safety of themselves, other people and animals. Advice on legal requirements and safe storage and use of firearms, including captive bolt firearms, is available from the New Zealand Police.

If required, bleeding out should be performed using a sharp knife, with the incision cutting both carotid arteries and jugular veins in one swift stroke.

Breaking the neck or severing the spinal cord immediately after cutting the throat is not permitted. The procedure only produces paralysis, does not affect the time taken for the animal to become insensible, and adds to the potential pain and distress of the killing process.

For further information on humane emergency killing, consult your veterinarian.

Part 9: Contingency Planning

Introduction

Contingency plans for adverse events (e.g. floods, fires, storms, snow or drought, biosecurity and disease events, and infrastructure failures) should be in place to ensure the welfare of deer.

Natural events

Planning for animal management during natural adverse events is increasingly important as climate change exacerbates existing climate extremes, or causes climate extremes in areas where they have previously rarely occurred. It is important that persons in charge of deer monitor weather forecasts and plan ahead to ensure sufficient feed and water is available; that farm buildings can withstand adverse weather conditions; and ventilation, watering and feeding systems work effectively and have a suitable back-up.

Civil Defence Emergency Management (CDEM; located within local Councils) are responsible for leading responses to emergencies. The Ministry for Primary Industries is responsible for coordinating the response for animal welfare in emergencies.

Infrastructure failures

Contingency plans should be in place for infrastructure failures that can affect water and feed supplies, animal handling equipment, lighting, ventilation and effluent management systems. Fire prevention and evacuation procedures are also important. More information can be found in relevant sections of this Code including Part 4: Feed and Water, Part 5: Physical Environment.

Biosecurity and disease events

For exotic diseases such as foot and mouth disease, there are national plans in place. Stock owners should have on farm biosecurity measures in place to address prevention of endemic diseases.

Climate change may be accompanied by increased disease risk and occurrence of new diseases that could have implications for deer welfare.

Human disease outbreaks can have implications for animal welfare. Contingency plans should cover anything that could disrupt animal care in these situations, including persons in charge being unable to work, restrictions on personnel movements, feed and other shortages, supply-chain issues, limitations to transport and processing capacity, and financial impacts and mental health.

Recommended Best Practice

a) The owner and persons in charge of deer must ensure that there is a contingency plan for the care of their animals that addresses:
    i) Seasonal weather events;
    ii) Fire prevention measures;
    iii) Emergency evacuation;
    iv) Failure of automated systems;
    v) Pest outbreaks; and
    vi) Disease outbreaks
b) A written contingency plan is available for inspection.
c) Contingency plans should align with regional and national emergency plans.
d) Persons in charge of deer should:
    i) monitor weather forecasts and take heed of severe weather warnings.

ii) seek advice/support from Deer Industry New Zealand (DINZ), other farmers, veterinarians, local authorities, MPI, Federated Farmers, Rural Support Trusts or agricultural consultants before a situation becomes unmanageable.
iii) be able to readily move animals to more suitable terrain, with accessible shelter/dry land, before harm occurs.
iv) check the security of fencing and clear access routes of any obstacles, as soon as possible when damage occurs.
v) provide ready access for other people to the farm animal health plan.

e) Additional feed and an alternative water supply should be available to the animals.
f) Generators and alternative power-supplies should be regularly checked to ensure they are functional.
g) Owners or persons in charge of deer, who face hardships that could compromise animal welfare on farm, should seek help as soon as possible to ensure regular inspection and care for their animals continues.

General Information

Where deer are held in off-paddock facilities, it is critical that a clear emergency evacuation plan is in place to ensure that animals and people can be removed from the facility safely and efficiently.

Further information on preparing for emergencies and adverse events may be obtained by referring to the MPI website at https://www.mpi.govt.nz/funding-rural-support/adverse-events/resources-for-adverse-events/

Part 10: Welfare Assurance System

Introduction

As science continuously furthers our understanding of animals' experiences, the ways in which we provide for their wants and needs also continues to be re-evaluated. Welfare assurance systems allow for farming conditions to be reviewed and maintained on a regular basis, with the intent of improving animal welfare. The maintenance of good records is an integral part of a robust welfare assurance system and good management.

Animal welfare is one component of the inter-relatedness between people, animals and the environment. Enhancing animal welfare therefore needs to be considered as part of a holistic approach to improvement across farming systems. As such, incorporating welfare assurance systems into integrated farm planning models is strongly encouraged. This will require discussion and co-operation between farmers, processors, advisers and regulators from across all knowledge fields related to farm systems.

Recommended Best Practice

a) Each Farm Plan should include documented welfare assurance that ensures the minimum standards and recommended best practices stated in this Code of Welfare are met.
b) Animal welfare assurance should primarily be directed at the assessment of the welfare of the animal itself (having regard to physical, health, and behavioural needs), and secondarily at management and housing aspects.
c) Animal welfare assurance should be easily accessible and adhered to by all personnel.
d) Animal welfare assurance should institute a process that facilitates employees to raise animal welfare concerns.
e) Animal welfare assurance should identify:
    i) Positions of individual persons who are responsible for carrying out specific tasks; and
    ii) Training, competence, and supervision of persons carrying out specified tasks; and
    iii) Processes that the owner or person in charge of animals will implement to achieve specified tasks, including:
        1) Appropriate animal handling techniques for the required task; and
        2) System and frequency of checks on animals, facilities, and equipment; and
        3) Procedure for recording and reporting incidents resulting in poor animal welfare outcomes; and
        4) Actions to be taken when poor animal welfare outcomes occur.
f) Animal welfare assurance should be reviewed at regular intervals, using current knowledge, good practice and (when available) independent third-party audits.
g) Where the review process identifies areas for improvement, a timeframe for corrective actions should be developed, completed, and recorded.

General Information

The adoption or adaptation of an industry generic assurance programme for animal welfare and husbandry procedures may fulfil the criteria set out in the minimum standards and recommended best practice of this Code.

Owners and persons in charge can also bring together existing documentation to include in the content of a welfare assurance system. Information contained in records such as farm diaries, animal health plans, contingency plans, employment files etc., may all be relevant.

Where improvements to current practice that may have implications for the wider industry are identified, it is recommended that these are communicated to the relevant industry body for consideration.

Schedule I – Interpretation and Definitions

Act

The Animal Welfare Act 1999.

adult

Any deer over the age of 2 years (birthdates are generally considered to be 1 December, but OSPRI NZ (Tb Free NZ) regulations recognise 1 January as the birth date for Tb testing purposes).

adverse weather

Unfavourable weather conditions that may pose harm or risk to the animals.

animal

Has the same meaning given to it in section 2(1) of the Animal Welfare Act 1999 being -

a) "Means any live member of the animal kingdom that is –

   i) A mammal; or
   ii) A bird; or
   iii) A reptile; or
   iv) An amphibian; or
   v) A fish (bony or cartilaginous); or
   vi) Any octopus, squid, crab, lobster, or crayfish (including freshwater crayfish); or
   vii) Any other member of the animal kingdom which is declared from time to time by the Governor-General, by Order in Council, to be an animal for the purposes of the Act; and

b) Includes any mammalian foetus, or any avian or reptilian pre-hatched young, that is in the last half of its period of gestation or development; and
c) Includes any marsupial pouch young; but
d) Does not include –

   i) A human being; or
   ii) Except as provided in paragraph above, any animal in the pre-natal, pre-hatched, larval, or other such developmental stage."

available technology

Technologies which are used practically to care for and manage animals, for example, existing chemicals, drugs, instruments, devices and facilities.

BCS (Body Condition Score)

A 5-stage scoring system for adult deer used to classify their body condition, based on the assessed amount of fat and/or muscle covering, particularly over the rump and pelvis. BCS, while illustrated for red deer, is applicable for assessing all common farmed deer species in New Zealand (see Schedule II – Body Condition Scoring of Deer).

competent person

A person experienced with, or have received training in, the correct use of the method being used and able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

colostrum

Milk secreted by the female for the first few days following birth characterised by high antibody content.

deer farm

An enclosed area that has been fenced off for the purpose of farming deer, including the keeping of deer on game estates or safari parks.

DM (dry matter)

A standardised measure of feed quantity, expressed as the percentage of feed remaining following removal of all moisture. While it is commonly used to compare different feed types, it does not reflect feed quality, in particular the energy content of the feed.

ear marking or notching

Removal of part of the ear for identification purposes.

electric prodder

A device that is capable of delivering an electric shock to make an animal move, but does not include electric stunners used to stun an animal immediately before slaughter, or electric devices used on an animal by the New Zealand Police.

fawn or calf

New-born deer until weaned. The terms are used interchangeably, depending on the species of deer.

fawning

Giving birth to a fawn.

food or feed

The words “food” and “feed” are used interchangeably.

game estate

A place within which animals are kept (whether all of the time or only some of the time), as if in the wild, for the purpose of providing opportunities for persons to hunt or catch them as recreational catch as if in the wild.

goad

An object used to make an animal move, but does not include an electric prodder.

good practice

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.

ground cover

Natural vegetation (e.g. rank grass, low scrub, weeds or brush) or artificial shelter (e.g. tree branches, hay bales).

hard antler

Fully grown calcified antler that no longer has functional nerve or blood supply.

hind or doe or cow

Adult female deer. These terms are used interchangeably, depending on the species of deer.

husbandry

Care and management practices of deer farming.

lactating hind

A hind that has given birth, and is producing milk to feed her fawn.

lairage

A facility where animals are held, particularly prior to slaughter or as part of transportation.

lame deer

As defined in regulation 40 of the Animal Welfare (Care and Procedures) Regulations 2018:

"An animal that—

a) is not weight bearing on 1 or more limbs when moving or standing; or
b) has a definite limp (shortened stride) that is clearly identifiable to a limb or limbs, with weight placed on the limb or limbs significantly reduced.

An animal with a limp is not lame if the cause of the limp is a nonpainful condition (such as a conformational fault, a gait abnormality, or a healed injury) and the animal is able to bear weight (although not necessarily evenly) on all 4 limbs."

lux

International measure of light intensity, not to be confused with watts.

ME (metabolisable energy)

A standardised measure of the digestible energy content of a feed that is available for use by the animal for maintenance, growth or lactation, expressed in megajoules (MJ) per unit of dry matter.

mechanical restraints

Devices designed to safely restrain animals for the purpose of administering animal health remedies, handling or reproductive techniques. Commonly referred to as crushes or cradles.

MJ (Megajoules)

A measure of the digestible energy of the feed provided. MJ units are used to compare the feed quality of different feed stuffs.

mob

Group of deer.

non-steroidal anti-inflammatory drugs

A class of analgesic medication that reduces pain, fever, and inflammation.

owner

Has the same meaning given to it in section 2(1) of the Animal Welfare Act, being –

owner, in relation to an animal, includes the parent of guardian of a person under the age of 16 years who -

a) owns the animal; and
b) is a member of the parent's or guardian's household living with and dependent on the parent or guardian.

person in charge

has the meaning given to it in section 2(1) of the Animal Welfare Act 1999 being –

person in charge, in relation to an animal, includes a person who has the animal in that person's possession or custody, or under that person's care, control, or supervision.

rut

The breeding season for deer, characterised by seasonal sexual activity in both male and female deer as well as aggressive behaviour in male deer.

safari park

A farm where income is derived from wild animals hunted on the farm.

scientific knowledge

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.

set-stocking

A grazing management system that establishes a long-term grazing density over a large area or number of paddocks for a period of weeks or months (e.g. during fawning or over winter).

species

In the context of this Code, means some deer species of the genera Elaphurus, Dama, Cervus and Odocoileus (see **Error! Reference source not found.**).

stag or bull or buck

Adult male deer. These terms are used interchangeably depending on the species.

stockperson

A person who undertakes the immediate day-to-day husbandry tasks associated with management and care of deer.

stockpersonship

Putting into practice the skills, knowledge, experience, attributes and empathy necessary to manage stock.

supplementary feeds

Feed which are additional to grazed pasture including baleage, hay, silage, crops and cereal-based feeds.

under the care of a veterinarian

In relation to animals, means that the person in charge of those animals has a genuine, ongoing relationship with a suitable veterinarian or veterinary business as described in the Veterinary Council of New Zealand's Code of Professional Conduct.

velvet antler

Deer antler in the active stages of growth.

velvetting or develvetting

The act of surgically removing velvet antler from male deer.

weaner

A deer after it has been weaned, typically at 3 – 4 months of age until it reaches approximately 9 – 10 months of age.

weaning

The act of permanently separating fawns or calves from their mothers.

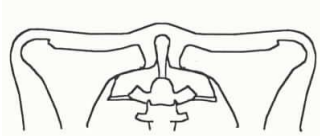
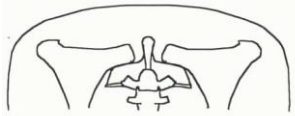
Schedule II – Body Condition Scoring of Deer

Body Condition Score Chart for Deer

This chart can be used broadly for all species of New Zealand farmed deer. The use of BCS is less accurate for assessing weaner deer.

Body condition scoring is based on palpation of the ribs, spine, pelvis and rump of live animals. The simple scoring system varies from score 1 (emaciated) to 5 (excessive condition).

Visual assessment of the body condition of live deer is difficult, particularly during cool months when coat hair is long. A long coat can disguise the actual appearance of the pelvis, ribs and spine, while a short coat can make an animal's appearance more irregular and highlight these areas. The only reliable method of assessing live animal body condition is by palpation of the ribs, spine, pelvis and rump.

Score 1 Emaciated 	No fat cover Pelvis, ribs and spine are prominent Concave rump area
Score 2 Lean 	Minimal fat cover Pelvis, ribs and spine prominent but appear rounded rather than sharp
Score 3 Good condition 	Ideal fat cover Pelvis, ribs and spine not readily distinguished Rump area is flat
Score 4 Forward condition 	Fat Pelvis and rump rounded Spine covered by fat
Score 5 Excessive condition 	Over fat Pelvis concealed by fat cover Rump very convex Spine hard to palpate

Schedule III – Energy and Water Requirements of Deer

Table 1: The dry matter (DM) and metabolisable energy (ME) content of common supplementary feeds for deer

Feed Type	Dry Matter (%)	Metabolisable Energy (MJ ME/kg DM)
Silage/baleage		
pasture	25 – 55	8.5 – 11.0
lucerne	30 – 57	9.5 – 11.5
whole crop cereal	35 – 42	8.5 – 10.5
maize	30 – 38	10.8 – 11.7
Hay		
pasture	85 – 88	8.0 – 10.0
lucerne	85 – 88	8.5 – 10.5
red clover	85 – 88	8.0 – 10.0
pea vine	85 – 88	7.5 – 9.0
Green feeds		
annual ryegrass	15 – 22	10.5 – 12.8
oats	12 – 20	9.0 – 12.0
Potatoes	10 – 20	12.5
Carrots	10 – 12	12.5 – 13.0
Onions	10 – 11	13.0 – 14.0
Grain		
barley	86 – 89	11.5 – 12.8
oats	86 – 89	10.0 – 11.5
maize	86 – 89	13.0 – 13.5

Feeding Management

The following tables are to be treated as general guidelines only because there is considerable variation in pastoral feeding management systems throughout New Zealand. ME is calculated per weight of DM. Various tables can be used to compare the energy value or energy quality of different feeds (see Table 1).

ME requirements are also used to express daily energy needs for maintenance and growth in deer and vary according to the season, the breed and sex, and the targeted growth functions of deer. These requirements need to be known to develop the appropriate amounts and quality of rations offered (see Tables 2 and 3).

Table 2: Guidelines for seasonal daily energy requirements for maintenance and growth of male red deer from weaning through to 18 months of age

Maintenance requirements (MJ ME/day)	**LIVEWEIGHT** (kg)							
	40	**50**	**60**	**70**	**80**	**90**	**100**	**110**
Autumn or Winter Sheltered	12	14	16	18	20	22	24	26
Winter – unsheltered	14	16	18	21	23	25	27	29
Spring	11	13	15	17	18	20	22	23
Summer	10	12	13	15	17	18	20	21
Growth requirements (MJ ME/day)	**GAIN** (g/day)*							
	50	**100**	**150**	**200**	**250**	**300**	**350**	**400**
Extra energy needed	3	5	8	11	13	16	19	21
Seasonal maintenance requirements are markedly affected by the weather. They may be lower when temperatures are warmer than normal and conversely higher when temperatures are lower than normal. * Add extra energy for gain to the maintenance requirement to get total requirement.								

Table 3: Guidelines for seasonal daily energy requirements of mature deer per animal (MJ ME/day)

	AUTUMN (MJ ME/day)	**WINTER** (MJ ME/day)	**SPRING** (MJ ME/day)	**SUMMER** (MJ ME/day)
Stags				
NZ Red (220 kg)	19	35	42	38
Elk x Red (240 – 350 kg)	25	47	56	51
Elk or Wapiti (350 – 450 kg)	34	62	71	66
Fallow (90 kg)	12	18	20	18
Hinds/Does				
NZ Red (110 kg)	27	26	28	49*
Elk x Red (140 – 160 kg)	48	46	50	85*
Elk or Wapiti (180 – 240 kg)	64	61	67	120*
Fallow (55 kg)	10	10	10	15*
This assumes diets contain 14 – 16% crude protein as adequate for maintenance. * Lactating female with fawn at foot.				

Water

Limited research has been completed to estimate the water requirements of red deer. The recommendations in Table 4 have been developed from 3 winter feeding experiments with weaner deer (45 – 80 kg liveweight) fed on combinations of silage, concentrates and a brassica crop. The recommendations for hinds and stags are based on the comparison of the weaner data with other livestock species, with subsequent extrapolation to mature livestock weight and size.

Deer need a supply of drinking water even if feeding on high water content fodder such as brassicas and spring pastures.

Table 4: The estimated daily drinking water requirements (litres/day) for red deer when fed either forage (pasture, silage or a brassica crop) or a concentrate diet

	FORAGE (litres/day)	**CONCENTRATE** (litres/day)
Weaners (up to 85 kg LW)	0.5 – 1.5	1.5 – 2.5
Hinds (dry, 100 – 120 kg LW)	1.5 – 2.0	3.0 – 4.0
Hinds (lactating, 100 – 120 kg LW)	5.5 – 7.0	8.0 – 10.0
Stags (180 – 250 kg LW)	3.0 – 4.0	6.0 – 7.0

Assumptions made:

- The table refers to ambient temperature up to 20ºC.
- For temperatures over 20ºC, approximately 1.0 L/day should be added per 100 kg LW for every 5ºC increase in temperature.
- Drinking water is assumed to contribute 25% and 75% of total water requirements for forage and concentrate diets respectively, the remainder coming from the feed.
- The DM concentration of a forage diet is assumed to be up to 30% DM, while that of a concentrate diet is assumed to be greater than 80% DM.
- At low DM concentrations (under 15% DM in forages such as spring pastures or brassica crops) animals may not use additional drinking water.
- Weaner requirements are based on a liveweight gain of 0 – 350 g/day.
- Water requirements of hinds are based on a maintenance feed intake of 2 kg DM/day and a lactation feed intake of 4 kg DM/day.
- For lactating hinds an additional water requirement of 1 L/kg milk produced has been added.
- Stag water requirements are based on a maintenance feed intake of 4 kg DM/day.

Appendix of extracts from the Animal Welfare (Care and Procedures) Regulations 2018

This Appendix is not part of the Code of Welfare but is included as a reference.

Although efforts to include relevant regulations within this Code have been made, there may be other regulations which are relevant to you. The full list of all animal welfare regulations should be consulted where appropriate (see www.legislation.govt.nz).

3 Interpretation

In these regulations, unless the context otherwise requires,—

pain relief means any anaesthetic, analgesic, or sedation administered with the aim of providing effective and significant alleviation of pain
skin abrasion means an injury where the skin has started to scrape or rub away, but does not include (by itself) hair loss
slaughter premises means premises designed and operated for the purpose of, or for purposes that include, slaughtering animals
transporter means a person who is in charge of an animal only for the purpose of transport
yearling deer means a deer that is not over 12 months of age or has its first set of antlers

30 Prevention of injury

(1) A person must not transport a cattle beast, deer, sheep, goat, or pig in a manner that causes acute injury to the animal.

(2) A person who transports a cattle beast, deer, sheep, goat, or pig must not load the animal onto a vehicle, or unload the animal from a vehicle, in a manner that causes acute injury to the animal.

(3) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding,—

a) in the case of an individual, $1,500; or
b) in the case of a body corporate that has been issued an infringement notice for the offence, $1,500; or
c) in the case of a body corporate that has not been issued an infringement notice for the offence (because proceedings in respect of the infringement offence have been commenced by filing a charging document), $7,500.

(4) The offence in subclause (3) is an infringement offence with an infringement fee of $500.

(5) In this regulation, **acute injury**—

a) means an injury that is more than minor and is bleeding; but
b) does not include back-rub (as defined in regulation 32(4)); and
c) does not include an injury from horns or antlers to which regulation 31 applies.

31 Transport of animals with horns and antlers

(1) The owner of, and every person in charge of, an animal with horns or antlers must not transport the animal, or allow the animal to be transported, in a manner that allows the animal to seriously injure itself or another animal.

(2) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding $1,500.

(3) The offence in subclause (2) is an infringement offence with an infringement fee of $500.

(4) In this regulation, **seriously injure** means to cause—

a) external bleeding or extensive internal bruising; or
b) bleeding or broken horns; or
c) bleeding, discharging, or broken velvet antlers or pedicles.

32 Prevention of back-rub

(1) A person must not transport a cattle beast, deer, sheep, goat, or pig in a manner that causes back-rub.

(2) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding,—

a) in the case of an individual, $1,500; or
b) in the case of a body corporate that has been issued an infringement notice for the offence, $1,500; or
c) in the case of a body corporate that has not been issued an infringement notice for the offence (because proceedings in respect of the infringement offence have been commenced by filing a charging document), $7,500.

(3) The offence in subclause (2) is an infringement offence with an infringement fee of $500.

(4) In this regulation, **back-rub** means a skin abrasion that—

a) is bleeding or discharging; and
b) is located on the head, hips, neck, spine, or high points on the back; and
c) covers a combined area of more than 50 cm^2.

39 Restrictions on transporting animals with injured horns or antlers

(1) This regulation—

a) applies in respect of an animal with a bleeding, discharging, or broken (and unhealed) velvet antler, horn, or pedicle; but
b) does not apply in respect of a deer if the bleeding or discharge is a result of the deer naturally casting its antlers.

(2) The owner of, and every person in charge of, an animal in respect of which this regulation applies must not transport the animal, or allow the animal to be transported, unless—

a) the animal is accompanied by a veterinary certificate that states that the animal is fit for transport; or
b) the animal is accompanied by a veterinary certificate that specifies conditions that must be complied with to manage the animal welfare risks associated with the transport and the owner, or person in charge, complies with all relevant conditions; or
c) the animal is a deer to which subclause (4) applies.

(3) However, the owner of, or person in charge of, the animal may, for the purpose of treatment, transport the animal—

a) within the property on which the animal resides; or
b) to another property (not being slaughter premises), part or all of which is less than 20 km from the boundary of the property on which the animal resides.

(4) The owner of, or person in charge of, a deer to which this regulation applies may transport the deer, or allow the deer to be transported, to a slaughter premises if—

a) the deer is a yearling deer, and
b) this regulation applies because the deer's first set of velvet antlers were removed; and
c) rubber rings designed for the purpose of inducing analgesia during velvet antler removal were used for pain relief and are still attached to the deer; and
d) the deer arrives at the slaughter premises no later than 72 hours after the velvet antlers were removed.

(5) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding $1,500.

(6) The offence in subclause (5) is an infringement offence with an infringement fee of $500.

40 Restrictions on transporting lame animals

(1) The owner of, and every person in charge of, a cattle beast, sheep, deer, pig, or goat that is lame must not transport the animal, or allow the animal to be transported, unless—

a) the animal is accompanied by a veterinary certificate that states that the animal is fit for transport; or
b) the animal is accompanied by a veterinary certificate that specifies conditions that must be complied with to manage the animal welfare risk associated with the transport and the owner or person in charge complies with all relevant conditions.

(2) However, the owner of, or person in charge of, the animal may, for the purpose of treatment, transport the animal—

a) within the property on which the animal resides; or
b) to another property (not being slaughter premises), part or all of which is less than 20 km from the boundary of the property on which the animal resides.

(3) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding,—

a) in the case of an individual, $1,500; or
b) in the case of a body corporate that has been issued an infringement notice for the offence, $1,500; or
c) in the case of a body corporate that has not been issued an infringement notice for the offence (because proceedings in respect of the infringement offence have been commenced by filing a charging document), $7,500.

(4) The offence in subclause (3) is an infringement offence with an infringement fee of $500.

(5) In this regulation,—

a) a cattle beast, deer, or pig is **lame** if—

i) the animal is not weight bearing on 1 or more limbs when moving or standing; or
ii) the animal has a definite limp (shortened stride) that is clearly identifiable to a limb or limbs, with weight placed on the limb or limbs significantly reduced:

b) a cattle beast, deer, or pig is not **lame** if the cause of the limp is a nonpainful condition (such as a conformational fault, a gait abnormality, or a healed injury) and the animal is able to bear weight (although not necessarily evenly) on all 4 limbs:
c) a sheep or goat is **lame** if—

i) the animal is not weight bearing on 1 or more limbs when moving or standing; or
ii) the animal has difficulty walking and holds its head below its backline almost continuously.

41 Restrictions on transporting animals in late pregnancy

(1) The owner of, and every person in charge of, a cattle beast, sheep, pig, or goat that is in late pregnancy must not transport the animal, or allow the animal to be transported, unless—

a) the animal is accompanied by a veterinary certificate that states that the animal is fit for transport; or
b) the animal is accompanied by a veterinary certificate that specifies conditions that must be complied with to manage the animal welfare risks associated with the transport and the owner, or person in charge, complies with all relevant conditions.

(2) The owner of, and every person in charge of, a pregnant deer must not transport the deer if it is in late pregnancy or within 21 days before the estimated due date, unless—

a) the deer is accompanied by a veterinary certificate that states that the animal is fit for transport; or
b) the deer is accompanied by a veterinary certificate that specifies conditions that must be complied with to manage the animal welfare risks associated with the transport and the owner, or person in charge, complies with all relevant conditions.

(3) The owner of, and every person in charge of, a pregnant deer must have a system in place that, if followed, will ensure compliance with subclause (2).

(4) A person who fails to comply with subclause (1) or (2) commits an offence and is liable on conviction to a fine not exceeding,—

a) in the case of an individual, $1,500; or
b) in the case of a body corporate that has been issued an infringement notice for the offence, $1,500; or
c) in the case of a body corporate that has not been issued an infringement notice for the offence (because proceedings in respect of the infringement offence have been commenced by filing a charging document), $7,500.

(5) The offence in subclause (4) is an infringement offence with an infringement fee of $500.

(6) For the purpose of section 162(1) of the Animal Welfare Act 1999, an inspector has reasonable cause to believe that a person has transported an animal that is in late pregnancy if the animal gives birth during transport or within 24 hours after arriving at a slaughter premises or sale yard.

(7) An infringement notice may not be issued, and a charging document may not be filed, in relation to a failure to comply with subclause (1) unless the animal gives birth during transport or within 24 hours after arriving at a slaughter premises or sale yard.

(8) An infringement notice may not be issued, and a charging document may not be filed, in relation to a failure to comply with subclause (2) involving a deer that is in late pregnancy (but not a deer that is within 21 days before the estimated due date) unless the deer gives birth during transport or within 24 hours after arriving at a slaughter premises or sale yard.

44 Certain regulations do not apply to transporters

Regulations 33(1), 35(2), and 38 to 43 do not apply to transporters.

48 Use of electric prodders

(1) A person must not use an electric prodder on any animal, except—

a) on cattle that weigh over 150 kg; or
b) during loading or unloading for transport, on pigs that weigh over 150 kg; or
c) during loading of a stunning pen at any slaughter premises, —

i) on pigs that weigh over 150 kg; or
ii) on pigs that weigh over 70 kg if the pigs are in a single-file slaughter race leading into, and within 15 m of, the stunning pen; or

d) during loading of a stunning pen at any slaughter premises, on deer of any weight.

(2) If an electric prodder is used on an animal where permitted by subclause (1), —

a) the prodder may be used only on the muscled areas of the animal's hindquarters or forequarters; and
b) the animal must have sufficient room to move away from the prodder.

(3) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding, —

a) in the case of an individual, $1,500; or
b) in the case of a body corporate that has been issued an infringement notice for the offence, $1,500; or
c) in the case of a body corporate that has not been issued an infringement notice for the offence (because proceedings in respect of the infringement offence have been commenced by filing a charging document), $7,500.

(4) The offence in subclause (3) is an infringement offence with an infringement fee of $500.

(5) In this regulation, **electric prodder**—

a) means a device that is capable of delivering an electric shock to make an animal move; but
b) does not include—

i) electric stunners used to stun an animal immediately before slaughter; or
ii) electric devices used on an animal by the New Zealand Police.

49 Prodding animals in sensitive areas

(1) A person must not strike or prod an animal with a goad in the udder, anus, genitals, or eyes.

(2) A person who fails to comply with this regulation commits an offence and is liable on conviction to a fine not exceeding $1,500.

(3) The offence in subclause (2) is an infringement offence with an infringement fee of $500.

(4) In this regulation, goad means an object used to make an animal move, but does not include an electric prodder as defined in regulation 48(5).

55L Prohibition on hot branding of animals generally

(1) A person must not hot brand an animal other than an animal to which regulation 55M applies.

(2) The owner of, and every person in charge of, an animal must not allow the animal to be hot branded in breach of subclause (1).

(3) A person who fails to comply with subclause (1) or (2) commits an offence and is liable on conviction, —

a) in the case of an individual, to a fine not exceeding $5,000; or
b) in the case of a body corporate, to a fine not exceeding $25,000.

56D Cutting teeth of animals

(1) A person must not cut a tooth of an animal unless—

a) the person is a veterinarian, or a veterinary student under the direct supervision of a veterinarian throughout the procedure; or
b) the tooth is—

i) a needle tooth of a pig that is 4 days of age or under; or
ii) a tusk of a boar; or
iii) a fighting tooth of a llama or an alpaca; or

c) the tooth of the animal is cut under a standard operating procedure that has been approved by an animal ethics committee.

(2) The owner of, and every person in charge of, an animal must not allow the animal's teeth to be cut in breach of subclause (1).

(3) A person must not cut a tusk of a boar or a fighting tooth of a llama or an alpaca unless the person uses—

a) an obstetrical wire; or
b) a saw suitable for the purpose of dentistry.

(4) The owner of, and every person in charge of, a boar, a llama, or an alpaca must not allow the tusks of the boar, or the teeth of the llama or alpaca, to be cut in breach of subclause (3).

(5) A person who cuts a tooth of an animal must—

a) be experienced with, or have received training in, the correct use of the method being used; and
b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(6) The owner of, and every person in charge of, an animal that is to have a tooth cut must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.

(7) A person who fails to comply with subclause (1) or (2) commits an offence and is liable on conviction, —

a) in the case of an individual, to a fine not exceeding $3,000; or
b) in the case of a body corporate, to a fine not exceeding $15,000.

(8) A person who fails to comply with subclause (3) or (4) commits an offence and is liable on conviction, in the case of an individual, to a fine not exceeding $1,500.

(9) The offence in subclause (8) is an infringement offence with an infringement fee of $500.

(10) In this regulation, —

fighting tooth means a modified canine and incisor tooth found in the jaw between the incisors and the molars

needle tooth means any small sharp tooth in a piglet (sometimes referred to as a milk tooth), but principally a canine tooth.

58C Velvetting deer antlers

(1) A person must not velvet the antlers of a deer unless throughout the procedure the deer is under the influence of an appropriately placed and effective pain relief that is authorised by a veterinarian for the purpose of the procedure.

(2) A person must not velvet the antlers of a deer unless the person is—

a) a veterinarian who has the relevant expertise and practical experience to perform the procedure; or
b) a veterinary student under the direct supervision of a veterinarian described in paragraph (a); or
c) the owner of the deer, or an employee of the owner (with the owner's approval), who has a valid written authorisation to perform the procedure by—

i) the National Velvetting Standards Body; or
ii) a veterinarian.

(3) A person's written authorisation under subclause (2)(c) must include details about the person's—

a) knowledge of the appropriate velvetting technique to meet deer health and welfare considerations, including—

i) deer-handling skills; and
ii) administration of the authorised pain relief; and
iii) pre-velvetting deer health and welfare assessment; and
iv) post-velvetting deer health and welfare aftercare; and

b) practical experience in the velvetting procedure; and
c) access to pain relief and storage receptacles for pain relief; and
d) access to appropriate equipment; and

e) access to appropriate handling facilities to perform the procedure.

(4) A written authorisation is valid for the period specified in the written authorisation (which may be no longer than 12 months).

(5) A person who has received a written authorisation under this regulation must keep the written authorisation for 3 years from the date it is given.

(6) The owner of, and every person in charge of, a deer must not allow its antlers to be velvetted in breach of subclause (1) or (2).

(7) A person who fails to comply with subclause (1), (2), or (6) commits an offence and is liable on conviction, —

a) in the case of an individual, to a fine not exceeding $3,000; or
b) in the case of a body corporate, to a fine not exceeding $15,000.

(8) In this regulation, **pain relief** includes, in relation to a yearling deer, high-pressure rubber rings designed for the purpose of inducing analgesia during velvetting.

59A Surgical reproductive procedures

(1) A person must not perform a surgical reproductive procedure on an animal unless throughout the procedure the animal is under the influence of pain relief that is authorised by a veterinarian for the purpose of the procedure.

(2) The owner of, and every person in charge of, an animal must not allow the animal to have a surgical reproductive procedure performed on it in breach of subclause (1).

(3) A person who performs a surgical reproductive procedure on an animal must—

a) be experienced with, or have received training in, the correct use of the method being used; and
b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(4) The owner of, and every person in charge of, an animal that is to have a surgical reproductive procedure performed on it must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.

(5) A person who fails to comply with subclause (1) or (2) commits an offence and is liable on conviction, —

a) in the case of an individual, to a fine not exceeding $3,000; or
b) in the case of a body corporate, to a fine not exceeding $15,000.

(6) In this regulation, **surgical reproductive procedure**—

a) includes a procedure that involves—

i) cutting into or piercing the abdominal cavity for the purpose of artificial insemination or for the purpose of harvesting, transferring, or implanting embryos; or
ii) transvaginal techniques that involve piercing the vaginal wall:

b) does not include a procedure carried out for the primary purpose of desexing or the delivery of offspring.

59B Transcervical insemination

(1) A person who performs a transcervical insemination on an animal must—

a) be experienced with, or have received training in, the correct use of the method being used; and

b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(2) The owner of, and every person in charge of, an animal that is to have a transcervical insemination performed on it must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.

(3) In this regulation, **transcervical insemination** means a procedure to deliver sperm directly to the uterus through the cervix using a catheter and may involve either or both of the following:

a) deep abdominal palpation:
b) using an endoscope.

59C Cystocentesis

(1) A person who performs cystocentesis on an animal must—

a) be experienced with, or have received training in, the correct use of the method being used; and
b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(2) The owner of, and every person in charge of, an animal that is to have cystocentesis performed on it must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.

(3) In this regulation, cystocentesis means a procedure involving the insertion of a needle through the wall of an animal's body into the bladder to obtain urine samples.

59E Epidurals

(1) A person must not perform an epidural on an equid unless the person is a veterinarian, or a veterinary student under the direct supervision of a veterinarian throughout the procedure.

(2) A person must not perform an epidural on an animal other than an equid unless the person—

a) is a veterinarian or a veterinary student under the direct supervision of a veterinarian throughout the procedure; or
b) injects a local anaesthetic authorised by a veterinarian for the purpose of the procedure into the epidural space.

(3) The owner of, and every person in charge of, an animal must not allow an epidural to be performed on the animal in breach of subclause (1) or (2).

(4) A person who performs an epidural on an animal other than an equid must—

a) be experienced with, or have received training in, the correct use of the method being used; and
b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(5) The owner of, and every person in charge of, an animal other than an equid that is to have an epidural performed on it must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.

(6) A person who fails to comply with subclause (1), (2), or (3) commits an offence and is liable on conviction, —

a) in the case of an individual, to a fine not exceeding $3,000; or
b) in the case of a body corporate, to a fine not exceeding $15,000.

59F Urinary catheterisation

(1) A person who performs a urinary catheterisation procedure on an animal must—

a) be experienced with, or have received training in, the correct use of the method being used; and
b) be able to recognise early signs of significant distress, injury, or ill-health so that the person can take prompt remedial action or seek advice.

(2) The owner of, and every person in charge of, an animal that is to have a urinary catheterisation procedure performed on it must ensure that the health and welfare needs of the animal are met during the procedure and recovery, by ensuring that at all times a person is available who—

a) has suitable equipment; and
b) has the relevant knowledge, has received relevant training, or is under appropriate supervision.