THE AUSTRALIAN DEER
INDUSTRY CODE OF PRACTICE
FOR THE WELFARE OF DEER
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Disclaimer
Information contained in the Code is subject to periodic review in consideration of changing deer management practices, government requirements and regulations. No subscriber or reader should act on the basis of any such information without referring to applicable laws and regulations and/or without seeking appropriate professional advice. Although every effort has been made to ensure accuracy, the Deer Industry Association of Australia (DIAA) shall not be held responsible for loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof. Furthermore, the DIAA expressly disclaims all and any liability to any person in respect of any activity undertaken or not undertaken, by any person in reliance on the contents of this publication.

Preface
Codes of Practice are nationally developed guidelines for the care and handling of the different species of farm animals. The Codes contain recommended housing and management practices for farm animals as well as transportation and processing.

The Codes are voluntary and are intended as an educational tool in the promotion of sound husbandry and welfare practices. The Codes contain recommendations to assist farmers and others in the agriculture and food sector to compare and improve their own management practices.

This Code applies to all farmed deer although it is not intended to apply to feral deer that may be on agricultural land but are not within the occupier’s control.

This Code of Practice is a model developed by the Deer Industry Association of Australia (DIAA) to set out guidelines for persons responsible for the welfare & husbandry of farmed deer.

The document was developed with the available information and with reference to the Canadian Code of Practice for the Care and Handling of Farmed Deer, the UK Code of Recommendations for the Welfare of Farmed Deer, the New Zealand Quality Assurance Program, The Australian Deer Farming Best Practice Program and The Australian Deer Transport Best Practice Program.

The DIAA recognises that this publication must respond to changing technologies, scientific discoveries, and cumulative industry experience. To meet Industry needs this Code is subject to periodic review in light of improving management technologies, husbandry practices, government requirements and regulations. This Code will remain a ‘living’ document that will be continually be amended to reflect these changes.

The recommendations of this Code of practice establish criteria promoting high standards of animal care and welfare. This Code supplements government legislation and Australian deer industry Quality Assurance programs.

Any submissions for change should be forwarded to: The Deer Industry Association of Australia (DIAA) at PO BOX 37, LISMORE, VICTORIA, 3324.

Introduction
Deer are farmed principally for the sale of live animals, venison (meat) and velvet antler. Deer are raised for a variety of purposes in a variety of production systems. Red deer and Fallow deer are currently the most widespread species used for farming in Australia.

This Code focuses on husbandry of farmed deer with particular reference to Red and Fallow although the needs of other species such as Wapiti (Elk), Rusa and Chital deer are generally covered by the Code.

Deer are adapted behaviourally and physiologically to regional environments throughout Australia. Common commercial species (Red deer, Fallow deer, Wapiti and Chital deer) are gregarious mixed-feeders whose feeding requirements guide deer farmer’s selection of species, pastures, facilities and husbandry systems.

The welfare of deer can be safeguarded and their behavioural needs met under a variety of management systems. The system, the number and stocking rate of deer kept at any one time depends on the suitability of the conditions and the skill of the stockman. All stockmen should be familiar with the behaviour of deer and must be competent in their handling and management to safeguard the welfare of the herd and individual animals.

Badly managed deer do not thrive and the stockman needs to watch for signs of disease or distress. The good stockman will be able to recognise trouble at its early stages and may be able to identify the cause and put matters right immediately. If the cause is not obvious, or if the stockman’s immediate action is not effective, veterinary or other expert advice should be obtained as soon as possible.
The Australian deer industry recognizes the need for a National Code of Practice that addresses issues of animal welfare in balance with normal farm management requirements. In the development of this Code, consideration is given to:

1. Physical and behavioural needs of farmed deer
2. Humane treatment
3. Human safety
4. Ease of animal management, and
5. Farm profitability.

**Producers’ Skills and Responsibilities**

**General**

(a) People working with deer must understand and accept responsibility for the welfare of deer under their care.
(b) Because some species of deer have a nervous disposition, caution and good stockmanship is required to prevent injury to deer and stockmen. Sick, injured and diseased deer should be given prompt and appropriate treatment of slaughtered immediately.
(c) Employers have an obligation to train employees properly on humane handling, equipment use, and livestock care and to ensure that employees follow those principles at all times.
(d) Prior to assignment of duties, personnel must be adequately instructed on the basic seasonal needs of deer under their care according to species, gender and age. A working knowledge of the behaviour of deer combined with adequate facilities are necessary to ensure safe handling. Procedures must be reviewed and practised to ensure competency and safety.
(e) Signs of poor health may be subtle. Personnel must be able to recognize behavioural signs that indicate discomfort or disease and respond quickly to the need to consult a veterinarian. Appropriate preventative treatments should be administered to deer to prevent disease conditions that are common in the district or are occurring in the herd. Veterinary help should be sought to diagnose the disease and initiate proper treatment.
(f) Licensed, trained and experienced operators should only use projectile syringe equipment. They should not be used routinely as an alternative to properly designed handling facilities. The preferential method of restraint is physical restraint in a purpose built deer crush within purpose built deer handling yards. In emergencies, chemical restraint using delivery systems such as pole syringes may be necessary. However, small deer may be injured by projectile syringes discharged from firearms, particularly at short range.
(g) Producers must ensure adequate handling facilities and fences.

**Cruelty and Neglect**

It is unacceptable for any person to:

(a) Mistreat any animal under his/her care and attention
(b) Neglect any animal so that it experiences pain, suffering or distress
(c) Fail to supply any animal with adequate resources to maintain the live weight of the animal within the normal physiologic range for the species type, age, and gender relative to the time of year
(d) Remove velvet antler without adequate analgesia
(e) Slaughter, confine, handle or transport any animal in a manner causing avoidable pain, suffering or distress
(f) Keep alive any animal that is in pronounced physical or psychological discomfort unless it is under the direct care of a licensed veterinarian.

**Identification and Records**

Health and production records should be maintained. Each animal should be easily identified to its property of origin.

Useful records include:

(a) Pedigree
(b) Acquisition/disposition
(c) Birth date
(d) Weaning date and weight
(e) Date and nature of any treatment or medication
(f) Breeding history
(g) Velvet records.

**Animal Considerations**

**Food and Water**

**Food**

(a) Deer have a typical ruminant digestive system requiring similar nutrient and micronutrients to other ruminant animals such as cattle and sheep.
(b) The quality and quantity of the diet of farmed deer should be adequate to maintain health and meet the requirements of growth, pregnancy,
lactation and cold stress appropriate to the species, age, gender, reproductive status and environmental conditions.

(c) The appetite of deer may be depressed in winter, and weight loss normally occurs during this period. Deer should be well fed in summer and autumn so that they are in good body condition by the end of autumn in preparation for winter.

(d) Deer should be protected as far as possible from toxic plants and foreign materials damaging to their health.

(e) When group feeding it is important to ensure that all animals (with special attention to subordinate animals) obtain adequate amounts of feed.

(f) Changes in diet must be made gradually to prevent digestive problems or potential death.

(g) Feed must be free of spoilage. Unusual feedstuffs should only be offered with care until when research has shown no adverse effect on animal health or the safety of the final product.

(h) Feeds should be stored in an appropriate manner to reduce growth of moulds and contamination from rodents, birds and insects. Feed quality, particularly vitamin activity, will deteriorate during storage. Manufacturers expiration dates must be respected.

(i) When feeding baled forage, twine and wrap must be removed to avoid illness or death from ingestion or injury from entanglement.

Water

Deer require free access to an adequate supply of good quality water.

(a) Water reticulation systems should be inspected regularly for normal function preferably daily during summer and at least weekly during winter. Under extensive grazing systems, storage systems should be large enough to facilitate less frequent inspections.

(b) Where dams or waterholes are the main source of drinking water measure should be taken to minimise faecal contamination.

(c) Water requirements vary widely according to species, body weight, temperature and type of diet. As a guide, lactating animals on dry summer pasture require up to 10 litres (Fallow Deer) or 20 litres (Red deer) daily.

Drought

(a) Drought conditions may be defined as a severe rainfall shortage resulting in a lack of pasture feed and/or drinking water resulting in excessive weight loss or death.

(b) During drought conditions supplementary feeding should be offered at least every third day and the herd observed carefully for weak or recumbent animals that may need to be segregated for special treatment.

(c) Deer too weak to stand and walk should be slaughtered on site or provided with emergency veterinary care. Methods of humane destruction are given in Section 6.

(d) Where the requirements of food or water to sustain health and vitality cannot be met, deer should be moved, agisted, sold for slaughter or slaughtered on site.

Protection from Climatic Extremes and Predation

(a) In general deer are less capable of maintaining their body temperature in the face of climatic extremes than cattle or sheep. Tropically derived species such as Rusa deer are particularly prone to cold stress.

(b) Farmed deer should have access to sufficient shelter and shade to prevent cold stress or heat stress. Bush and other shelter in paddocks can minimise climatic stress.

(c) Newborn deer have poor thermoregulatory mechanism. Therefore deer calving in winter in cold climates should have access to paddocks with long grass or shelters. In summer, calving deer may require shade.

(d) Protection from predation by dog packs may be required. Electrified out rider wires may be useful.

(e) In the event of fire or flood, deer should be attended to promptly to minimise injury and pain.

(f) Fawning/calving paddocks should be clean, well drained and away from disturbances. Appropriate cover provides shade and keep fawns/calves away from fence lines.

Handling

General

(a) Deer should be handled quietly with care and patience. Familiarization of deer with handling facilities and a management routine from an early age reduces animal apprehension and improves the ease of management.

(b) Facilities for deer should be designed with due regard to the behavioural patterns of deer as a prerequisite for ease of handling and reducing risk of injury.

(c) There should be enough paddocks to permit animals of similar age, sex, size, and compatibility to be grouped and to allow separation of incompatible groups where necessary at certain times of the year.

(d) Overcrowding of deer results in competition for food, water, and space
that may lead to fighting and the risk of injury.
(e) As aggressive behaviour is mainly a problem with male deer in hard antler, deer on farms should not be allowed to carry hard antler.
(f) Care should be taken to either avoid handling deer during the rut (normal period of hard antler) or to use facilities that decrease the risk of injury from fighting.
(g) Deer require social interactions with members of their own species. Single animals should not be confined alone for more than a short period except for quarantine or management purposes.
(h) Fencing should be high enough to prevent escape and of a design which minimised the risk of injury. Good fencing adequately maintained also minimised the risk of predation.
(i) Farmers have an obligation to prevent deer from escaping and must ensure fencing does not allow this.
(j) The provision of subdued light in the drafting pens and handling facility may reduce stress and assist the handling of deer.
(k) To avoid risk of injuries deer should be handled quietly so they do not panic and seek escape from a yard or other restraining facility.

Handling Facilities
There are a wide range of satisfactory designs and layouts suitable for Deer handling facilities. It is recommended that new farmers seek specialist advice before constructing new facilities.

Handling Males
(a) Adult stags must be considered as potentially dangerous at all times and their handling during the rut should be kept to a minimum.
(b) Especially during the rut, males may be dangerous and must be treated with respect. Hand-reared animals are particularly dangerous, due to their lack of fear.
(c) Antlers should be removed to help:
   (i) Avoid risk of injury to themselves and other deer and people
   (ii) Reduce damage to facilities, and
   (iii) Allow easy access to feeding facilities and watering systems.
(d) Antlered and antler-less males should be separated, especially during the rut.
(e) Generally, deer in “hard antler” should not be yarded with other deer and should be penned singly in facilities that limit movement or space.

Management Practices
General
(a) A high degree of competence in the performance of farm management practices should be sought to minimise injury and maintain health and vitality.
(b) Restraint used on deer should be only necessary to efficiently carry out a procedure.

Restraint
(a) Restraint is required for procedures such as tagging, velveting, hoof trimming, and other interventions.
(b) Mechanical restraint normally is preferred. Restraining devices such as bales, crushes, and cradles must be designed and sized specifically for each species. This specialized equipment must be regularly maintained and repaired and personnel must be skilled in its operation.
(c) Use of currently available chemical immobilizing agents is legally restricted to licensed veterinarians and other authorized persons.
(d) Electro-immobilization (EI) is an effective method of restraint but does not control pain and can be disagreeable, particularly if used repeatedly. Therefore, EI cannot be recommended until scientifically demonstrated to be superior to alternative methods of restraint.

Removal of Antlers
(a) Antlers of male deer should be removed annually.
(b) Antler should preferably be removed before development of “hard antler” to help:
   (i) Protect handlers
   (ii) Other deer and
   (iii) Farm facilities.
(d) Removal of the “velvet antler” must be under the supervision of a registered veterinary surgeon or by a person accredited under the National Velvet Accreditation Scheme.
(c) Antlers must not be cut less than 2 cm above the coronet of the pedicle.

Identification
Preferred methods for the individual identification of deer includes ear tagging, ear marking and ear tattooing. Hot iron and chemical branding should not be used. Freeze branding may be used but has limited application. Property trace-back is necessary to satisfy legislative requirements for stock destined for the EU. In the future, it is a likely requirement for other markets.
Farm Facilities

Housing and Shelter

(a) Deer should have access to natural or constructed shelter areas that provide protection from weather extremes.
(b) Building materials including preservatives and paints to which the deer have access should not contain any chemical compounds harmful to the deer or which may contaminate the products destined for human consumption.
(c) There should be sufficient access to feed and water to avoid competition. Deer within groups should be free to all stand or all lie down comfortably at the same time.
(d) Handling yards and races must be free of sharp edges and protrusions to prevent injury to animals and personnel.
(e) Shelter should be available if necessary to separate and protect injured, orphaned or sick animals.
(f) During the rut, male deer may regularly rub their heads and antler buttons on trees and ring bark them. Appropriately safe tree guards are usually necessary to protect the trees.

Fencing

(a) Fences must be properly designed and well maintained.
(b) Perimeter fences should prevent escapes and discourage movement of wild deer or predators onto the farm.
(c) Appropriate fencing materials and construction techniques that minimize the potential for injury should be used. Fencing wire for perimeter fences should be attached on the inside of the perimeter fence posts where possible.
(d) Generally, electric fencing is only suitable for external fences in combination with other traditional forms of fencing.

Raceways/Laneways

(a) Laneways connecting pastures and handling facilities should allow easy herd movement, prevent injury and minimize stress.
(b) Laneways should be constructed with posts on the outside of the fence wire. Shade netting, solid fencing or some other visual barrier is essential at pressure points and at the entrance to the handling facilities.
(c) Gates should be designed to prevent animals from getting under them and lifting them off their hinges. Where used, wire should be attached against the inside of the gate rather than the outside. Perimeter gates should be kept free from stock movement and pressure if possible.

Transportation

General

(a) Persons handling or transporting deer should be properly instructed and knowledgeable about deer behaviour and welfare, and must comply with relevant State and Federal legislation.
(b) Where possible deer should be segregated into groups of the same species, sex and age during transport. Only fit and healthy animals should be transported.
(c) Entire stags during the “hard antler” cycle should not be transported with other animals, if they must be transported it is recommended they be penned singly.
(d) Deer of grossly different sizes, other than dam and progeny, should not be transported together.
(e) Deer should be transported in properly designed crates or trailers that are well ventilated. Single animal crates should be darkened.
(f) Floor space should be adequate to allow deer to lie down during transport for journeys in excess of 2 hours. As a guide a preferred floor space required for the small species such as Fallow and Chital deer is 0.3m² per animal, for Rusa deer 0.4m² and Red deer 0.5m² per animal, or about 250kg/m².
(g) Strains of species with larger than average body weight may require more space. Injury during transport can occur if too little or too much space is provided.
(h) Transport of deer during hot weather should be conducted with caution. In hot climates, deer are preferably transported at night. Adequate ventilation is essential to control the temperature within the transport facility especially during the period immediately following loading and during stops.

(i) Ventilation is essential and should be adjustable to remove gases and excessive moisture.

(j) Floors should be non-slip and allow easy cleaning at approved washing sites.

(k) Inspection of the crate should be carried out within 30 minutes of commencing the journey and thence at about 4-hourly intervals, or more frequently on rough roads or in adverse conditions. Inspection ports located at strategic positions in the crate will assist inspection.

(l) The driver is responsible for the welfare of deer during transportation.

(m) Deer should have antlers removed prior to transport. If this is not possible, deer with hard antlers should be transported individually.

(n) Exhaust gases should be directed away from any ventilation entry point.

**Animals Unfit for Transport**

Prior to transport, animals should be in good physical condition and health. Deer that are sick, injured, disabled, fatigued or that cannot be moved without causing them avoidable suffering are unfit for transportation.

Except in emergencies, the following deer should not be transported:

(a) Deer that are unfit (ill)

(b) Pregnant deer:
   (i) If they are within 14 days of giving birth
   (ii) If they are within 30 days of giving birth and in if the duration of the trip will exceed 6 hours

(c) Deer with young at foot under 4 weeks of age (young can be transported separately from does for short trips)

(d) Pre-rut weaned animals within 2 weeks of separation from their dams

(e) Deer carrying more than 40 mm of velvet, with bleeding or incompletely healed pedicles, or within the first 48 hours after velveting

**Loading and Unloading**

(a) Deer should be loaded and unloaded in a way to prevent injury or suffering. Properly designed and maintained loading facilities should be provided for easy and safe movement of deer.

(b) Ramps and chutes should be strong, have solid walls and provide secure footing. Good, uniform lighting allows for easy movement of animals.

(c) Ramps should be free from projections and sharp edges.

(d) Vehicle doors and internal gates should be sufficiently wide to permit deer to pass through readily, without bruising or injury.

**Humane Destruction**

Effective and humane methods of euthanasia for deer that administer a quick and painless death include shooting with a firearm, electric stunning or stunning with a captive bolt pistol followed by bleeding.

**Firearms**

(a) All firearms must be licensed.

(b) A suitable firearm for euthanasia is a .22 calibre hollow point (preferably a .222 calibre for large species) rifle used at short range but not place directly on the head, or a .32 calibre humane killer pistol.

(c) The direction of the line of fire is shown.

(d) Disadvantages of a firearm are the hazards to human safety and the possibility of not being legal on public property.

**Captive Bolt Penetrating Stunner**

(a) A suitable weapon is a captive bolt, penetrating stunner that uses blank cartridges Coded for the amount of power required for the species of animal being destroyed. The stunner is placed firmly against the skull before firing. The concussion stunner (non-penetrating) is not recommended.

(b) The direction of the line of fire is the same as for a firearm as shown in Code.

(c) Deer stunned with a captive bolt pistol must be bled out immediately.

(d) The main advantage of the captive bolt stunner is its safety for operators.

**Recommended Positions and Direction of Fire**

Alternate approaches recommendations for euthanasia of deer using a firearm are:

(a) From the front using the intersection point of lines taken from the base of each ear to the opposite eye and firing horizontally into the forehead.

(b) When deer have been disturbed it is equally effective to fire through the skull just behind the base of the antlers in the direction of the animals muzzle.
The recommendation approach for euthanasia of deer using a captive bolt firearm is:

(a) From the front using the intersection point of lines taken from the base of each ear to the opposite eye and firing horizontally into the forehead.

**Veterinary Supervised Chemical Euthanasia**

Where practical, and under the direct supervision of a registered veterinarian, animals may be euthanased using veterinary chemicals.

**Documentation**

(a) The DIAA has adopted a Quality Assurance Program for Deer Farming and Deer Transport aimed at encouraging world’s best practice. Providing the necessary accountability to secure Australia’s position in World Markets.

(b) Many World Markets insist on traceability for deer products, which will require an internationally approved Quality Assurance program to record animal identification and allow tracing of animal and product movements.

(c) All animal movements should be reflected in appropriate documentation as well as setting out responsibilities and demarcation for the parties concerned.

(d) The Australian Deer industry Quality Assurance programs recommend data recording systems that meet animal identification and tracing requirements.

**Wild and Escaped Deer**

(a) There are many wild populations of deer established in various locations in Australia.

(b) Deer farmers should not release captive deer and should prevent escape.

(c) Deer farmers who deliberately release farmed deer to the wild or who do not provide infrastructure that can be reasonably expected to prevent accidental escape, may be liable for prosecution under various State or Federal Legislations.

(d) Deer farmers should assist local agricultural authorities in recapturing escaped deer or if necessary destroying them.

(e) Deer may be included in local Impounding Acts such as the NSW Impounding Act of 1993, which allows authorised officers to impound or destroy deer.

**REFERENCES**