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Department of **Agriculture and Food**



THE GRAZING OF CATTLE IN THE SOUTHERN PASTORAL AREAS OF WESTERN AUSTRALIA

BEST MANAGEMENT PRACTICE GUIDELINES



BEST MANAGEMENT PRACTICE FOR THE GRAZING OF CATTLE IN THE SOUTHERN PASTORAL AREAS OF WESTERN AUSTRALIA

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DEPARTMENT OF AGRICULTURE WESTERN AUSTRALIA'S MODEL CODE OF PRACTICE FOR THE WELFARE OF CATTLE IN THE RANGELANDS OF WESTERN AUSTRALIA

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1. INTRODUCTION

The *Land Administration Act 1997* requires a pastoralist to manage and work the land within a pastoral lease to its best advantage and use methods of best pastoral and environmental management practice to achieve sustainable land use.

The Pastoral Lands Board will use these best management practices as a guideline.

2. ENTERPRISE SPECIFICATIONS

2.1 Fencing Considerations

2.1.1 Boundary

Boundary fencing should be undertaken in such a manner as to satisfy the *Dividing Fences Act* and should be sufficient to contain cattle. In the event of a dispute involving the fencing of a boundary, the *Dividing Fences Act* should be consulted.

2.1.2 Internal

Low carrying capacity in much of the Southern Rangelands precludes the significant use of sub-divisional fences. However, strategic management unit fencing, enclosing a number of water points within similar land systems, may be economically justifiable. The distribution of vegetation types needs to be factored into management unit design to avoid damage to preferred grazing areas. Management units should not contain strongly contrasting vegetation types that might result in over-grazing of preferred areas.

Management unit design (size and/or configuration) and water point distribution will need to take into account:

- the grazing range of cattle;
- sensitive and fragile land systems, river frontage, coastal dune country, unmanageable areas of permanent natural water (e.g. ranges) or stony upland country of very low productivity require specific land management considerations, including the option of not being grazed at all; and
- the land forms and soil types. Appropriate fence alignments will reduce ongoing fence maintenance and minimise soil erosion risks.

Vegetation clearance associated with the maintenance of existing, and construction of new, fence lines should be regarded as normal station management. In shrubland or grassland landscapes, five (5) metres of clearing either side of the fence is recommended. In timbered landscapes the height of prevailing timber should be the determining factor to avoid fence damage in the event of falling trees.

2.2 Artificial Water Improvements

The strategic location of water points will spread grazing more evenly and reduce selective grazing. Inadequate distribution of watering points can cause localised land degradation close to waters while more valuable pastures at greater distances from watering points remain unused.

Water points should not be located in fragile areas or in preferred country types.

Water point placement decisions should take into account the influence of water quality and degree of preference for particular vegetation types.

The grazing range from a water point for cattle rarely exceeds 5 km, which creates a theoretical grazing area in the order of 78 km². Consequently, water points should be distributed no more than 10 km apart and preferably located away from fence-lines. Carrying capacity within the grazing area serviced by a water point determines the stocking rate of that water point.

Water points should also be managed in conjunction with existing permanent or ephemeral natural water points to manage cattle distribution and pasture condition. Poor water quality negatively impacts on cattle productivity.

Vegetation clearance associated with the provision of new or alternative water points and associated access should be regarded as normal station management.

2.3 Cattle Management

Cattle should be introduced to an enterprise at a stocking rate that does not exceed the carrying capacity of the grazed area serviced by a water point. This should reflect the area and quality of pasture type(s), pasture condition and prevailing seasonal conditions.

Each class of stock is assigned a “cattle unit” rating relative to its nutritional requirement.

The following table shows indicative cattle unit (cu) values for each class of stock:

Class of stock	Cattle unit (cu)
1 bull	1.5 cu
1 cow	1.4 cu (cows in a herd producing 50% of calves)
1 dry cow or steer	1.0 cu
1 one year old steer or heifer	0.8 cu
1 weaner	0.6 cu

Actual stocking rate should be determined through the use of monitoring systems that facilitate assessments of the grazing pressure on available feed, (determined by levels of utilisation of key species).

If key species appear over-utilised, the country should be spelled to allow species vigour to improve, seedling recruitment and seed-set.

Vegetation clearance associated with the construction of new yards and holding facilities, and the provision of access to these facilities, should be regarded as normal station management. Similar provisions should apply to the construction of station airstrips.

3. RANGELAND MONITORING

Photographic monitoring offers pastoralists an inexpensive management tool that can help to better understand how varying practices affect the rangelands. Using a monitoring system also helps take the guesswork out of knowing what changes to vegetation and soils have occurred over time.

Monitoring of pastures is considered to be industry best practice and sites should be reviewed at key decision times or at least on an annual basis. Visual comparison with photographs from previous recordings is generally adequate to assess pasture condition trend and “food-on-offer” relative to previous assessments.

Monitoring sites should be installed in association with each water point and take into account any preferences cattle may have for a particular vegetation type. Monitoring sites should contain perennial plant species that are known to be preferentially grazed by cattle. Department of Agriculture Western Australia can provide advice on establishment of monitoring sites.

On a regular basis pastoralists should assess the general condition of the entire area grazed.

The aim of photographic monitoring is to record the results of management on the range resource and to enhance management decisions into the future.

4. RANGELAND MANAGEMENT

Matching total grazing pressure to utilisable biomass production is a key principle of rangeland management. A conservative stocking policy aims to effectively understock the rangelands. Biomass removal should be kept at levels that ensure palatable perennial species survival and provide adequate soil surface protection.

Conservative stocking will reduce grazing impact on the rangeland resource. A further benefit may be through the reduced impact of poor seasons on herd productivity together with reduced variable costs.

Spelling assists in the regeneration of heavily utilised and poor condition vegetation. The frequency of spelling should be determined by density and health of the vegetation and presence/absence of desirable perennial species.

5. GRAZING SYSTEMS

Although Southern Rangeland managers use continuous stocking as a general rule, deferred grazing systems are also used.

Rotational grazing involves consistent rest periods and can be used to promote pasture maintenance or regeneration.

Deferred grazing is less systematic than rotational grazing and involves longer but less frequent spells.

6. PASTURE SPELLING

Pasture spelling is possible without removing all the animals from an area. Flexible stocking rates around core areas offers a means of increasing or decreasing pressure on the pasture within a continuously grazed system.

Stocking can be lightened off when a spell is needed for pasture seed-set or seedling establishment.

A key to successful range improvement is to take advantage of favourable climatic conditions to reduce the impacts of drought and dry seasons in a way that will improve range condition.

7. FIRE MANAGEMENT

Fire management in the Southern Rangelands has most relevance to properties with significant grass or Spinifex pastures.

Fire management regimes should aim to:

- control the spread of wild fire;
- manage the risks associated with wildfires by strategic fuel reduction over the property together with the provision of strategic firebreaks;
- improve cattle distribution;
- improve pasture quality;
- renovate grass/spinifex based pasture that has reached rank status and is of little productive value, as managed fires rid pastures of rank growth. Grasses generally tend to be more desirable to stock during early establishment. Careful management is required to control any potential risk of pasture decline;
- control woody weeds; and
- increase the productivity of grass/Spinifex based country types, because fires of right intensity and at the correct time can control woody weed infestations.

Department of Agriculture Western Australia's
Model Code of Practice
for the Welfare of Cattle in the Rangelands of Western Australia

1. INTRODUCTION

The aims of this Code are to:

- promote humane and considerate treatment of cattle, and the use of good husbandry practices to improve the welfare of cattle in rangeland enterprises;
- inform all people responsible for the care and management of cattle about their responsibilities; and
- set an industry standard by defining acceptable cattle management practices.

"Cattle" includes all domestic bovines eg, cows, bulls, steers, heifers, and calves.

"Calves" are under 6 months of age.

This Code should be read in conjunction with other codes of Practice endorsed by Australian Agricultural Council (AAC), and with State/Territory animal welfare legislation.

Assistance with specific management or disease control problems is available from Department of Agriculture, veterinarians in private practice, and consultants.

2. BASIC WELFARE NEEDS

The basic needs for the welfare of cattle are:

- adequate quantity of water, feed and air to maintain good health;
- social contact with other cattle. Cattle adapt to the familiar surroundings in which they live, including other cattle. Separation from familiar cattle may cause stress, which may be worsened by mixing or crowding with unfamiliar stock;
- sufficient space to stand, lie down, stretch and groom, and to perform normal patterns of behaviour;
- protection from predation;
- protection from disease or injury, and appropriate treatment if they occur;
- protection from adverse extremes of climate or unseasonal changes in weather conditions, where possible;
- precautions against the effects of natural disasters (eg, storage of feed to protect against droughts, provision of firebreaks); and
- protection from unnecessary, unreasonable or unjustifiable pain, suffering or injury.

3. WATER

Cattle must have access to an adequate supply of cool clean drinking water.

Cattle should not be deprived of access to water for periods longer than 24 hours unless in transit, in which case the codes of practice for transport of livestock apply.

Water requirements depend on age, bodyweight, production level, air temperature, humidity, dry matter intake, and dry matter content of the feed eaten.

Cattle used to drinking salty water may need special consideration. If they refuse fresh water, they may need a gradual change from salty to fresh water.

Where water medications (eg vitamin/mineral supplements and/or urea) are to be used they should be introduced gradually.

Cattle should be observed to ensure they do not refuse to drink the medicated water.

4. FEED

Cattle should have access to or be provided with feed that will maintain their well-being. They should not be deprived of access to feed for periods longer than 48 hours. Animals in poor condition, in late pregnancy or early lactation, should not be deprived of access to feed for periods longer than 24 hours.

Feed available should meet the requirements of maintenance, growth, pregnancy and lactation, and provide for any extra demands, such as exercise or cold stress. When droughts or seasonal feed shortages occur, arrangements should be made to ensure a continued supply of feed adequate for maintenance of cattle.

If the pasture is poor, in quality and/or quantity of feed, and no supplements are being fed; the stocking rate should be reduced accordingly. Appropriate management practices such as early weaning of calves should be instigated.

In many parts of Australia cattle should receive mineral supplementation. State agricultural departments can advise.

5. PRECAUTIONS AGAINST DROUGHT

Drought may be defined as a severe shortage of feed and/or water, usually the result of prolonged periods of low rainfall. It is not a normal seasonal decline in the quantity and quality of feed available.

Where minimal water and feed requirements cannot be met (whether or not drought conditions prevail), cattle should be moved or agisted to a place where feed and water is adequate, sold or humanely slaughtered, as soon as possible.

Cattle being fed for survival should be attended to at least twice a week. Where possible they should be grouped appropriately, by sex, age & size, to reduce competition. Shy feeders require special attention and treatment, depending upon type of feed, method of feeding and strength of competing cattle.

Weak cattle, or cattle in poor condition, which go down after limited exercise are not fit to travel, and should not be permitted to do so. They should be fed and watered until they are fit to travel or promptly and humanely destroyed.

Weakened cattle, which are strong enough to travel, should be transported to their destination by the shortest possible route. Weakened cattle should not be mixed with strong animals or subjected to the stress of sale through saleyards.

As far as possible, weakened cattle should be given special protection against exposure to extremes of weather, especially when in transit.

6. PROTECTION FROM CLIMATIC EXTREMES AND PREDATION

All reasonable steps should be taken to minimize the effects of weather that produces either heat or cold stress in cattle.

Plans should be made and reasonable steps should be taken to ensure protection from the effects of natural disasters. In areas subject to flooding, care is necessary in paddock and facility design to allow access to some safe high ground, or to plan for stock evacuation to high ground.

Cattle must be attended to after a natural disaster such as bushfire or flood. Animals should be assessed by a competent person. Immediate treatment or humane destruction may be required depending on the animal's condition.

All reasonable steps should be taken to protect stock from predators.

7. CATTLE HANDLING FACILITIES, MUSTERING AND YARDING

Sheds, pens, yards, lanes, ramps and other areas where cattle come together should be constructed and maintained so as to minimize stress, injury and disease. The design and construction of such areas should enable dust and noise to be minimised.

Holding yards should be designed to minimize stress or injury and to allow all animals held to lie down and to exercise.

Cattle must not be driven to the point of collapse.

The use of shotgun pellets on cattle, as an aid to mustering (or for any other purpose), is not acceptable.

Specific guidelines for the transportation of cattle and other animals are in the SCA Codes for the Welfare of Animals - Road, Rail, Sea and Air Transport of Livestock, in the Codes of Practice for the Welfare of Animals at Saleyards and at Abattoirs, and in the Code of Practice for the Destruction or Capture, Handling and Marketing of Feral Livestock Animals.

8. CASTRATION

Castration by knife or burdizzo without local or general analgesics/anaesthetics should be confined to calves at their first muster and preferably under the age of six months. Only under exceptional circumstances (eg range management of older, previously unmustered bulls) should castration of old bulls be performed, and then preferably by a veterinarian.

Castration with rubber rings is only recommended for calves up to 2 months of age. Calicrate bands may be used on animals up to 12 months of age.

9. SPAYING

Surgical spaying (preferably using the "Willis Dropped Ovary technique") should be conducted as quickly as possible by a skilled operator, preferably a veterinarian, using hygienic materials and techniques. Adequate restraint, such as a suitable squeeze crush, is essential. Spayed females should be rapidly returned to familiar and clean surroundings following the operation. Post-operative inspection (with or without mustering) is desirable.

In some States, or areas, spaying may be legally performed only by registered veterinarians. There are varying restrictions on use of analgesics or anaesthetics.

10. IDENTIFICATION

Ear-tagging, ear-marking, ear-notching, ear-tattooing, freeze-branding, and electronic characterization are the preferred methods of identifying cattle, from a welfare viewpoint. In rangeland situations however, earmarking and/or fire branding remains the only practical method of permanently identifying cattle. The States/Territories have differing legal requirements regarding identification.

Branding with corrosive chemicals is unacceptable.

11. DEHORNING

To minimise injury all horned cattle should be dehorned as young as possible and prior to weaning and at a suitable time to reduce fly worry. After dehorning, cattle should be inspected regularly for the first 10 days, and any infected wounds treated.

12. HEALTH

Appropriate preventative measures should be used for diseases that are common in a district or are likely to occur in the herd.

Medications such as vaccines, drenches, and external medications, such as dips and pour-on formulations, should be stored and given in strict accordance with the manufacturer's instructions and recommended methods of administration. Overdosing may harm cattle and underdosing may result in failure to reach the required effect. Expiry dates should be strictly observed.

Sick, injured or diseased cattle should be treated promptly and appropriately, or humanely slaughtered.

13. FERAL CATTLE

Feral cattle control poses special welfare problems and while these are addressed in other welfare codes, there are aspects of feral stock control that affect welfare of domestic cattle.

Where physical, economic or welfare constraints prevent adequate control of feral stock and the health and welfare of controllable stock is threatened, removal or humane destruction of feral stock is necessary.

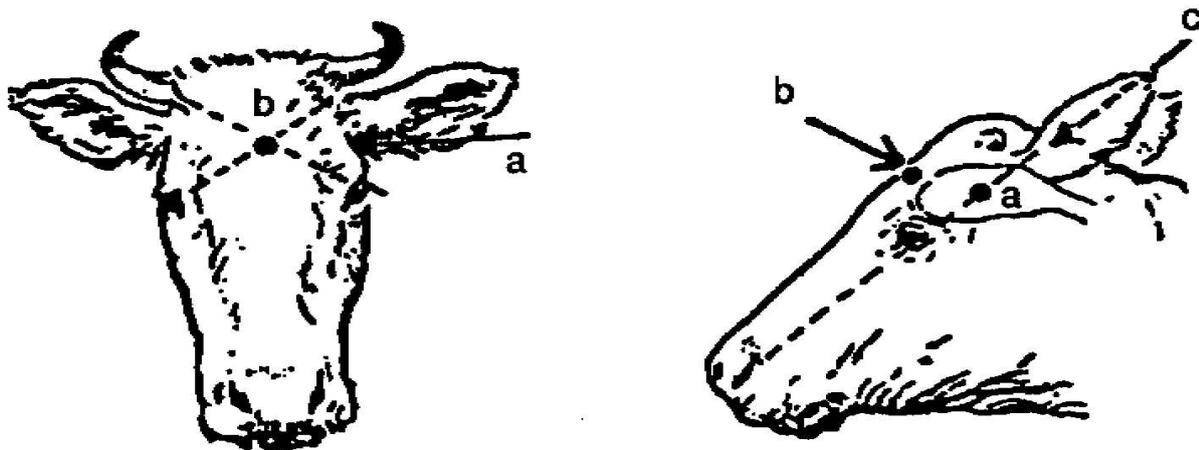
14. HUMANE DESTRUCTION OF CATTLE

The preferred methods of euthanasia are:

- overdose of anaesthetic under veterinary supervision; and
- euthanasia using gunshot or captive-bolt pistol by the frontal method. The captive-bolt pistol or firearm should be directed at the point of intersection of lines taken from the base of each ear to the opposite eye. (See figure 1)

The use of shotguns is not recommended for destruction of cattle.

Figure 1: Humane destruction of cattle



"a" Position for temporal method (suitable for firearms only)

"b" Position for frontal method (firearm or captive-bolt pistol)

"c" Position for poll method (firearms only)

An animal stunned with a captive-bolt pistol must be bled out by severing the major vessels of the neck as soon as it collapses to the ground. To avoid injury due to the animal's involuntary leg movements, the operator should stand behind the neck.

Killing may also be by gunshot using the temporal or poll methods. All other methods of killing are unacceptable.

Exceptions to the recommended practice may occur under extreme conditions. In these circumstances common sense and genuine concern for animal and human welfare should prevail.