

AEC STANDARD OPERATING PROCEDURES

SOP No:	19
SOP	Cattle
Scientific Name:	<p><i>Bos Taurus</i>, temperate cattle breeds, mainly found in southern areas of Australia. Some of the temperate cattle breeds are: Angus, Belted Galloway, Devon, Highland, Murray Grey, Poll Hereford, Red Angus, Shorthorn, South Devon, Blonde D'Aquitaine, Braunvieh, Charolais, Chianina, Gelbvieh, Limousin, Mandalong Special, Salers, Simmental.</p> <p><i>Bos indicus</i>, tropical cattle breeds, found in northern areas of Australia. Some of the tropical cattle breeds are: Boran, Brahman, Red Sindhi, Sahiwal, Santa Gertrudis, Tuli, Belmont Red, Braford, Brangus, Charbray, Droughtmaster.</p> <p>Varietal range difference: Many different and distinct breeds exist. Cattle are usually divided into two groups:</p> <ul style="list-style-type: none"> • Dairy cattle used for milk production, eg. Holstein, Jersey and Illawarra Shorthorn • Beef cattle used for meat production, eg. Hereford, Angus, Murray Grey and Brahman
Category:	2, 3, 4, 5
Approval Level:	<p>Category 2: School Principal may delegate</p> <p>Category 3: School Principal may NOT delegate</p> <p>Category 4: Animal Ethics Committee</p> <p>Category 5: Animal Ethics Committee</p>
Authority:	<p>Government Schools – Department for Education and Childhood Development Animal Ethics Committee</p> <p>Independent and Catholic Schools - Non Government Schools Animal Ethics Committee</p>
Authority Approval Date:	1 August 2010
Last update	22 January 2018
Disclaimer:	<i>This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC</i>
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

Physical Attributes:

- **Size:** Varies greatly between breeds. Mature heights up to 1.5 metres at the shoulder, or taller for some large breeds.
- **Weight:** Varies greatly with breed and stage of growth, may vary from 400-800kg.
- **Age at adult size:** Varies between breeds, between 2 and 4 years.
- **Weight at birth:** Small breeds 15-20 kg. Large breeds 35-40+ kg. These are only average weights and final birth weight is dependant upon the age of the cow, the nutrition of the cow (particularly in early pregnancy), the breed, the specific genetics of the parents, ie. some bulls 'throw' low birth weight cows and are actively selected for that as this can mean less problems at calving and whether it is a single or multiple birth.
- **Gestation period:** Average 282 days, range 275-290 days.
- **Number of offspring:** Normally one.
- **Range of breeding ages:** Mating begins from 15-18 months,

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- reproductive life 8-10 years.
- **Weaning age:** 6-8 months.
- **Healthy characteristics:**
 - **Body Temperature:** 38.6°C, range 37.0°C-39.3°C
 - **Respiration rate:** 20-40 breaths/minute
 - **Heart rate:** 40-100 beats/minute
 - **Other:** moist muzzle, active, and alert, glossy coat, clear bright eyes.

Behaviour:

Cattle in a school or college situation should be docile, spending most of their time grazing or chewing the cud. They are social and will herd if kept in numbers. Cattle showing difficult temperaments should be culled and not used in a school situation.

Environment:

Cattle may be kept in extensive situations in a paddock or more intensive situations, such as feedlots. Cattle perform well in an open pasture that has plenty of available water as well as shelter from wind, rain and sun. The minimum space required in extensive situations is 0.5 ha per head assuming the pasture is balanced and well maintained.

- *Model Code of Practice for the Welfare of Animals, Cattle*, 2nd Edition, 2004, PISC Report 85, CSIRO.
- *Model Code of Practice for the Welfare of Animals, Land Transport of Cattle*, 2002, SCARM Report 77, CSIRO.

For cattle kept in intensive situations, care must be taken with the following:

- **Movement and exercise:** Cattle should be exercised daily.
- **Temperature:** Heat stress can be a concern. In stalls, provide adequate ventilation; in feedlots, access to shade, such as trees or shelter, is preferable.
- **Light:** If cattle are kept indoors the area should be well lit.
- **Ventilation:** In stalls, allow free air movement without creating draughts.
- **Bedding:** Suitable materials for stalls include straw, sand or sawdust. Suitable drainage needs to be provided.
- **Cleaning:** Clean the stalls daily. Feedlots that produce meat for export must be accredited under the National Feedlot Accreditation Scheme. Feedlot operations must comply with certain specified conditions. Check this publication:
 - *National Guidelines for Beef Cattle Feedlots in Australia* (2nd edition), Standing Committee on Agriculture and Resource Management.

Feeding:

Cattle are most efficient, in terms of digestion, with good quality pasture comprising a balance of grasses and legumes. Fresh, clean water that is readily accessible is also needed for efficient growth. Care must be taken when cattle are put on pastures with a high legume content as bloat can occur.

Remember, when hand-feeding, the rule is to introduce new food types slowly and carefully. Do not feed excessive quantities of grains, feed plenty of high quality roughage and feed small amounts at frequent intervals.

There must be adequate trough space so all animals have equal access to food to prevent bullying and therefore eliminate

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unintentional over and under feeding.

Monitoring of live weight or condition scoring will indicate the adequacy or otherwise of the feed conditions.

- **Type:** Young calves: suckled on cow or use a milk replacement. Older cattle: grazing is the most economical. Supplementary feeding with hay and concentrate mixes may be necessary. If the cattle are solely grazed, a local veterinarian or Agriculture officer should be consulted to determine if there is a need for specific supplementation.
- **Quantity:** Food quantities vary with the animal's weight, stages of growth and stages of production. As a guide, an average 450 kg cow requires 0.5 ha of good quality pasture. To hand feed the same cow requires approximately 10 kg of concentrates, plus hay, each day.
- **Regularity:** For hand feeding, provide food twice daily for young calves and daily for other cattle.
- **Essential dietary needs (variations):** Newborn calves must get colostrum in the first 24 hours.
- **Water:** A clean, fresh, reliable supply is necessary. As a guide, a small cow will require 30–50 litres per day and more if she is lactating. For cattle kept in intensive systems, feed bins should be off the ground and automatic waterers, which supply clean, fresh water at all times, should be installed and checked daily. There should be adequate waterers for the number of cattle housed. In a feedlot situation dominant cattle will congregate between the food and water and may stop subordinate cattle from feeding and drinking if not enough space made available.

Handling:

Cattle need to be handled calmly and with care to prevent distress and injury to the animals and the handlers. A set of solid yards, preferably including a race and crush or head bail, is necessary for the adequate handling of cattle.

The use of cattle prods should be discouraged. Cattle that are kept in schools should not require this handling technique. If, in exceptional circumstances, a cattle prod is needed, **only** the teacher should use it.

Movement of cattle: There are a number of restrictions relating to the movement of cattle. To ensure you abide by the appropriate legislation, contact the PIRSA Primary Industries and Resources SA. Refer to *Model Code of Practice for the Welfare of Animals, Land Transport of Cattle*, 2002, SCARM Report 77, CSIRO.

When transporting livestock there are a number of aspects to be aware of:

- There should be no protrusions or sharp edges in the vehicle, doorway, floors or partitions. Hinges and latches should not project into areas where livestock have access. Gates should operate smoothly and retract fully.
- The floor of the vehicle should be of a non slip material.
- Truck bodies, crates or trailers should be designed so as to not allow any part of the animal to protrude from the vehicle.
- The driver of the road transport vehicle is responsible for the welfare of the stock during transport, except where the owner or the owner's agent (Agricultural Teacher or Agricultural Assistant)

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- travels with the animals.
- Newborn livestock should be transported in a separate compartment or at least partitioned off from older stock.
- During transit stock should be inspected 30 minutes after commencement of the journey and then at 90 minute intervals for the duration of the journey.
- Led stock that are tethered in the vehicle should not be tied too short as to allow an unnatural stance, or tied too long to allow them to wander around and become entangled with each other or have feet and legs become entangled in lead ropes.
- Stock with nose rings should not be tied by the nose rings, lead ropes on nose rings should be removed completely or at least tied securely around the neck.
- Unled stock should not be transported if they are severely emaciated or drought stricken.
- Care should be taken with females that are heavily pregnant if weather conditions are unfavourable (ie. hot, cold or wet)
- Adequate shade and shelter should be provided depending on climatic conditions.
- Spraying may be necessary if travelling between tick infested and clean areas.

Disease prevention

Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the Animal Disease Hotline 1800 675 888. Treatments must be documented in the appropriate records.

Signs of illness:

The health of stock should be monitored at least daily and preferably more often. The first sign of ill-health is often a change in the animal's natural demeanour. It may be listless or lethargic.

Closer examinations may show variations in:

- body temperature
- gastrointestinal function such as diarrhoea, weight loss or loss of appetite
- urogenital function, e.g. abortion, infertility or abnormal discharges
- respiratory function such as persistent coughing, gasping or panting;

or

Closer examination may show evidence of:

- skin conditions, such as lesions or abnormal growths
- a tucked-up appearance, stiff gait, abnormal posture, patchy coat or loss of hair
- excessive scratching or rubbing
- swollen joints or lameness
- bellowing.

A failure to thrive or grow is another sign of illness. Common ailments may include mastitis, bloat, internal parasites or milk fever.

If the cause of ill-health cannot be identified and corrected, assistance should be sought from a veterinarian who is familiar with cattle. Any

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signs of illness or injury, and treatments given, should be documented in the appropriate records.

Euthanasia:

Where an animal has become so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a local veterinarian or a person competent in the technique for cattle. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.

Disposal/fate planning:

Cattle can be sold privately, at auction or consigned to an abattoir. Cattle must not be released into the wild. Carcasses must be disposed of in accordance with local council regulations.

Holiday and weekend care:

Cattle need to be monitored, checked daily and fed regularly over weekends and holiday periods.

Approved activities:

Observation, breeding, farming

Resources:

Websites:

www.pir.sa.gov.au
<http://www.ufaw.org.uk/>
<http://afs.okstate.edu/>