<table>
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<tr>
<th>SOP No:</th>
<th>19</th>
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<tr>
<td>SOP</td>
<td>Cattle</td>
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<td><strong>Scientific Name:</strong></td>
<td><strong>Bos Taurus</strong>, 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.</td>
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**Bos indicus**, 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, Bradorf, Brangus, Charbray, Droughtmaster.

**Varietal range difference:**

Many different and distinct breeds exist. Cattle are usually divided into two groups:

- 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

<table>
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<th>Category:</th>
<th>2, 3, 4, 5</th>
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| **Approval Level:** | Category 2: School Principal may delegate  
Activities requiring Category 2 approval  
- Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal).  
- Observation of particular animal behaviours, e.g. oestrus, parturition  
- School performance by outside agencies that have animals as part of their exhibits  
- Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep).  
- Breeding of mice or other appropriate animal in the classroom.  
- The appropriate care of classroom pets.  
- Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation).  
- Familiarisation activities.  
- Administering water as a treatment.  
- Collection of wool, milk, faeces or urine samples (non-invasive).  
- Administering a topical treatment to the udder.  
- Coat care and grooming.  
- Tail tagging.  

Category 3: School Principal may **NOT** delegate  
Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc).  
- Non-invasive measurement of body condition by ultrasound  
- Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat,
palatability
• Taming/gentling.
• Training for competition or showing.
• Tethering animals.
• Collection of saliva.
• Measurement of body temperature (invasive).
• Administering topical treatment by backline, spray or dip.
• Administering drench or capsules orally.
• Administering injections into the udder.
• Coat clipping.
• Hoof trimming: cattle.
• Dagging
• Milking
• Putting nose clips on cattle.
• Loading and unloading animals onto transporters.
• Showing animals at school and away.
• Foot bathing.
• Jetting animals.
• Using sire harnesses.
• Restraining with ropes.
• Pregnancy detection by external ultrasound.
• Horn tipping.

Category 4: Animal Ethics Committee
Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal.
• Breaking-in cattle or horses.
• Administering intraruminal, subcutaneous or intramuscular injections.
• Administering winged capsules orally.
• Administering intravenous injections or intrauterine pessaries.
• Ear marking/tagging of livestock.
• Tattoo application.
• Castration of calves
• Oestrus synchronisation.
• Microchip tagging.
• Dehorning cattle under six months of age.
• Detusking boars.
• Disbudding calves and kids.
• Commercial activities (for example growing turkeys for commercial sale)

Category 5: Animal Ethics Committee
Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur.
• Collection of faeces, ruminal fluid or blood (invasive).
• Nose ringing.
• Fire branding of cattle and horses.
• Freeze branding of cattle and horses.
• Artificial insemination.
• Semen collection.
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, 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.

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 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) 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 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. Carcases must be disposed of in accordance with local council regulations.

**Holiday and weekend care:**

Cattle need to be monitored, checked 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://www.ansi.okstate.edu/LIBRARY/index2.html

Texts:
- *Cattle Australia* Murray David Publishing Jan – 2009, 21-Nov-08

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<tr>
<th>Contact:</th>
<th>DECS Animal Ethics Committee</th>
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<tr>
<td></td>
<td>Department of Education and Children’s Services</td>
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<td></td>
<td>Phone: 8207 1806</td>
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<tr>
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<tbody>
<tr>
<td>Association of Independent Schools of SA Inc</td>
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<tr>
<td>Website: <a href="http://www.ais.sa.edu.au">http://www.ais.sa.edu.au</a> &gt; School Management &amp; Governance &gt; Animal Ethics</td>
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<tr>
<td>Phone: Executive Officer, 8179 1400</td>
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<td>NGS Animal Ethics Committee</td>
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<tr>
<td>Catholic Education Office</td>
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<tr>
<td>Website:</td>
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