

AEC STANDARD OPERATING PROCEDURES

SOP No:	22
SOP	Goats
Scientific Name:	<i>Capra hircus</i>
Category:	2, 3, 4, 5
Approval Level:	Category 2: School Principal may delegate Category 3: School Principal may NOT delegate Category 4: Animal Ethics Committee Category 5: Animal Ethics Committee
Authority:	Government Schools – Department for Education and Childhood Development Animal Ethics Committee Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010
Last update	1 November 2013
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.

General Information: Breeds commonly used in Australia can be divided into the following categories:

- fibre production, including Angora and Cashmere;
- milk production, including Anglo-Nubian, British Alpine, Toggenburg and Saanen;
- meat production, including Condobolin and Boer-feral and Boer-Cashmere crosses; Boer goats imported from South Africa are becoming increasingly popular for crossbreeding in Australia.
- **Movement:** There are a number of restrictions on the movement of goats. To ensure that the appropriate legislation is followed, contact PIRSA Primary Industries and Resources SA.

Physical Attributes:

- **Size:** at the withers, dairy goats 790 mm-950 mm (does 790 mm-930 mm, bucks 900mm-950 mm) Angoras 500 mm-650 mm (does 500 mm-550 mm, bucks 600 mm-650 mm)
- **Weight:** adult males 50 kg-100 kg, adult females 50 kg-85 kg
- **Age at adult size:** 18-24 months
- **Average life span:** 8-15 years
- **Weight at birth:** 1.5 kg-4kg
- **Gestation period:** 150 days, range 145-155
- **Number of offspring:** 1-3. Twins are common, triplets rare. 150% - 180% kidding rates are not uncommon
- **Weaning age:** 3-6 months
- **Range of breeding ages:** sexual maturity is closely related to growth rate and size. Average age for a buck is 6-7 months and for a doe 7-8 months. Animals should not generally be bred until 15-18 months of age.
- **Body temperature:** 39°C (+/- 0.5°C)
- **Heart rate:** 70-90 beats/minute
- **Respiration rate:** 12-30 breaths/minute

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Behaviour: Goats are agile, alert and observant. They will seek shelter from rain and avoid waterlogged areas. Generally, goats have leaders and are not aggressive unless provoked. Kids play together.

Environment: Goats perform well in open pastures that have plenty of water available and shelter from wind, rain and sun. As they are agile animals, goats should have enough space to be able to run. Kids are very playful and can be discouraged from climbing into feed bins by providing them with something else to climb on.

If goats are housed intensively, each pen should be designed to hold no more than three or four goats and provide an area of at least 2.25 m² per animal.

Fences should be at least 1 200 mm high. Ensure they are secure, as some breeds of goat are prone to going under or through fences. Avoid fencing in which goats can catch their legs. Goats are particularly prone to attempting to escape when they are stressed: for example, when they are separated from the rest of the flock and at weaning time. Goat paddocks must provide adequate protection from predators.

Goats do not like cold, wet conditions. They are more easily stressed by cold than sheep or cattle, as they have less fat under the skin. Newborn kids and Angoras after shearing are particularly susceptible.

Shelter is essential to provide shade and protection from cold, wet weather. While goats will seek shelter from rain, they may kid in the open on frosty nights. When kidding is imminent, goats should be confined overnight.

Air circulation in sheds must be adequate to prevent humidity, dampness and a build-up of ammonia. Pens should be cleaned daily. If goats are to be housed for lengthy periods, wooden slatted floors, with effective sub-floor and room ventilation, are best. They allow easy cleaning of pens. Feed bins should be off the ground and automatic waterers, which supply clean, fresh water at all times, must be installed and checked daily.

Clean, dry straw or wood shavings should be provided for bedding. As these types of bedding need to be kept clean and dry, it is essential that they be inspected and replaced regularly.

Feeding: Goats are considered to be browsing animals and, given the choice, will obtain 40 per cent of their food in this way. They prefer longer pastures than sheep and will not graze as closely. Pasture species required are generally the same as those for sheep, but goats will avoid many clovers. Dairy breeds require a supplement of nutritious feed, such as crushed oats, some barley or goat mixes, if they are to produce well. Good nutrition is particularly important for young, actively-growing goats and for does during the last six weeks of pregnancy and when they are lactating.

When feeding goats by hand, the rule is to introduce new food types slowly and carefully. Feed plenty of high-quality roughage and feed small amounts at frequent intervals. Do not feed excessive quantities of grains. Fresh, clean water should be readily accessible. Monitoring of live weight and condition scoring will indicate the adequacy of the feed conditions.

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Young kids are suckled or fed milk replacements. For older goats, grazing and browsing are the most economical. Supplementary feeding with hay and concentrate mixes may be necessary. Local veterinarians or the Department of Agriculture officer should be consulted to determine whether there is a need for specific supplementation.

The quantity of food required varies with the animals' weight, stages of growth and stages of production.

If there is no browsing available, the carrying capacity of pasture for goats is similar to that for sheep. As twins and triplets are not uncommon, it is important to ensure that during the last third of their pregnancies, does receive progressively more nutrition.

Hay and pasture should be freely available. For dairy animals, concentrates should be fed at each milking and, for others, once per day. Kids can have free access to the does.

Newborn kids must get colostrum in the first 24 hours. If goat colostrum is not available, sheep or cow colostrum may be used. However, as adverse reactions to the latter have occurred, care is needed.

When hand-rearing kids, ensure that all bottles and feed-mixing equipment are washed thoroughly and sterilised after feeding. Scrub equipment thoroughly with detergent, sanitise it with a commercial sanitiser such as Milton® and then store the equipment in a way that prevents recontamination. As an extra precaution, sanitise equipment before use. Advice should be sought from PIRSA Primary Industries and Resources SA for suitable milk replacements and feeding schedules for kids.

A clean, fresh continuous supply of water should be provided at all times. Water must be clean, as goats may refuse to drink contaminated water. The float mechanisms in troughs should be protected to ensure that goats do not damage them.

Disease prevention:

Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or PIRSA Primary Industries and Resources SA. Treatments must be documented in the appropriate records.

For information on diseases contact the Animal Disease Hotline 1800 675 888.

Breeding:

Handling:

Goats need to be handled calmly and with care to prevent distress and injury to the animals and the handlers. They should be picked up by the body, never by the horns or fleece.

Kids can be caught by putting hands around their bodies. Catching by the legs can cause dislocation of joints. A simple, small version of a cattle-type bail can be used for all purposes, including hoof trimming, washing and milking. A simple collar can be used for milking. Most sheep equipment can be used for goats. Shearing Cashmeres involves using a simple collar restraint, while Angoras are held in the

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same way as sheep.

Goats kept in schools and colleges learn routines quickly and respond to food incentives.

Hygiene: Signs of illness:

Stock health should be monitored at least daily, and preferably more often. The first sign of ill-health noticed is often a change in the animals' natural demeanour. They may be listless or lethargic. Closer examinations may show:

- disorientation;
- lethargy;
- changed feeding habits;
- scouring;
- nervousness;
- nasal or ocular discharge;
- separating from, or lagging behind, the main body of the flock;
- lameness;
- ill-thrift or wasting; or
- an abnormal gait or a reluctance to rise.

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

Treatments:

If you are unable to identify and correct the cause of ill-health, seek the assistance of veterinarians who are familiar with goats. Treatments must be documented in the appropriate records.

Euthanasia:

When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. 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:

Goats be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.

Holiday and weekend care:

Goats 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
www.agric.wa.gov.au
www.ansi.okstate.edu