Non-Government Schools Animal Ethics Committee

ANIMAL CARE INFORMATION SHEET

The document provides detailed guidelines and objectives for various activities involving sheep in South Australian schools, emphasizing proper animal care, handling, and biosecurity practices.

Sheep	
Scientific Name:	***Ovis aries***
Activities requiring School Principal approval only:	Capture, restraint and handling of sheep Pregnancy detection by external ultrasound of sheep Measurement of body weight, growth or body proportions of sheep (non-invasive) Measurement of body condition in sheep (non-invasive) Measurement of pulse or respiration in sheep (non-invasive) Measurement of age by dentition in sheep Measurement of scrotum and testicles by palpation in sheep Measurement of mild dietary effects in sheep Taming/gentling of sheep Collection of hair, milk, faeces and urine samples from sheep (non-invasive) Collection of saliva from sheep Shearing of sheep Hoof paring of sheep Foot bathing and flystrike treatment of sheep Crutching of sheep Administration of oral and drench treatments by backline, spray or dip to sheep Loading and unloading of sheep into transporters Use of sire harnesses in sheep
Activities requiring NGSAEC approval *prior* to the commencement of the activity:	Collection of blood, faeces and ruminal fluid samples from sheep (invasive) Ear marking or tagging of sheep Castration of sheep and lambs Administration of treatments by subcutaneous, intramuscular or intravenous injections to sheep Artificial insemination of sheep Tail docking of lambs
Approval Level:	Where an activity is not listed in this **Animal Care Information Sheet (ACIS),** advice must be sought from the Non-Government Schools Animal Ethics Committee (NGSAEC) before it can be undertaken.
Authority:	**Independent and Catholic Schools** – Non-Government Schools Animal Ethics Committee
Disclaimer:	This document is reviewed annually. You should check the website 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 NGSAEC.
Licensing Requirement:	Licence required. Check the Department for Environment and Water website for further details www.environment.sa.gov.au

Compliance Requirement:	The keeping of this species requires approval from the School Principal or the NGSAEC. It is recommended that this **Animal Care Information Sheet (ACIS)** be followed as a minimum in the provision of appropriate care and housing for this species.
General Information:	**Varietal range difference:** Breeds commonly used in Australia can be divided into the following categories: • **Fine wools** including Merino and Merino Comeback; • **Short wools** including Dorset, Ryeland and Suffolk; • **Long wools** including Border Leicester and Lincoln; • **Dual-purpose breeds** including Corriedale and Polwarth; and • **Carpet wools** including Drysdale and Tukidale Woolless, and the Wiltshire Horn, which sheds its fleece. Schools that wish to maintain a sheep enterprise should restrict their choice to plain-bodied sheep, such as the dual-purpose breeds and first-cross ewes. They provide wool production but are less prone to fly strike.
Physical Attributes:	• **Size:** Breed dependant; (at the shoulder) 60 cm (Merino) - 95cm (Border Leicester), depending on breed • **Weight:** Breed dependant; range from 35 - 90 kg, but can be up to 150 kg • **Age at adult size:** approximately two years • **Average life span:** 8-13 years • **Body temperature:** 39OC (+/- 0.5 OC) • **Heart rate:** 75 beats/minute (range 50-80) • **Respiration rate:** 15 - 40 breaths/minute
Behaviour:	Sheep are gregarious animals, moving and responding as groups. This behaviour pattern significantly facilitates moving, working and identifying individual animals with problems: for example, when ewes are about to lamb, they become extremely agitated and move away from the main body of the flock. The same may be true for animals displaying the first signs of ill health or poor nutrition.
Environment:	**Housing/Space:** Sheep perform well in open pastures that have plenty of water available as well as shelter from wind, rain and sun. If sheep are housed intensively, each pen should be designed to hold no more than four animals and should provide at least 2.25 m2 per sheep. The NGSAEC's preference is that schools raise sheep extensively in outdoor paddocks providing adequate predator protection is provided. If sheep are to be shedded for lengthy periods, wooden slatted floors, with adequate sub-floor and room ventilation, are best. This ensures that wool damage (staining), fleece rot and fly strike are minimised and facilitates 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. Ventilation must be sufficiently effective to prevent yards and pens becoming humid or damp and to avoid a build-up of ammonia. **Shelter:** Shelter is essential to provide shade and protection from cold, windy and wet weather. **Covering:** Paddocks must provide adequate protection from predators. **Temperature:** it is particularly important for newborn lambs and newly-shorn sheep, to be protected during cold conditions. For shedded sheep, care needs to be taken that the slatted floors do not cause cold, draughty conditions. **Cleaning:** Pens should be cleaned daily. Feed and water containers must be cleaned regularly. Weeds that are considered toxic should be removed from paddocks prior to sheep accessing them or as soon as they become visible.
Feeding:	**Diet:** Sheep are efficient in terms of digestion, with good-quality pasture comprising a balance of grasses and legumes. However, care must be taken when sheep are put on

	pastures with high legume content, as bloat can occur. Readily-accessible, fresh, clean water is needed for efficient growth. For older sheep, grazing is the most economical method. The carrying capacity of sheep on pasture is based on the average annual feed availability and is expressed in terms of Dry Sheep Equivalent/hectare (DSE rating). One DSE is the amount of feed required to maintain a 50 kg wether. A cross-bred ewe with a five-week-old lamb has a DSE rating of 2.9. Monitoring of live weight and condition scoring will indicate the adequacy of the feed conditions. A body condition, fat scoring or weighing system should be used as a guide for the monitoring and planned feeding of sheep. The quantity of feed required varies with the animals' weight, stages of growth and stages of production. Young lambs are suckled or fed milk replacement. When feeding by hand, introduce new food types slowly and carefully. Do not feed excessive amounts of grains. **Daily requirements:** Hand feeding should be undertaken twice daily for young lambs and daily for other sheep when held in intensive conditions. A clean, fresh and reliable water supply is necessary. The moisture content of the animals' feed will determine the quantity of water they require. **Supplementary feeding:** Hay and concentrate mixes may be necessary. If the sheep are always grazed, local Veterinarians or Animal industry experts should be consulted to determine whether there is a need for specific supplementation.
Breeding:	• **Gestation period:** 150 days (range 144-151 days) • **Number of offspring:** normally a single lamb, but twinning does occur. • **Weight at birth:** average is 2.5 - 5 kg. Final birth weight depends on the age of the ewe, the feeding regimen, the breed and whether the birth is single or multiple. • **Weaning age:** approximately 5 months. • **Range of breeding ages:** puberty varies from 8 - 12 months. Most ewes are mated for the first time at 18 months. • **Newborn lambs:** must get colostrum in the first 24 hours. Schools wishing to undertaking breeding of sheep as a farming enterprise should establish a relationship with their local Veterinarian familiar with sheep and Animal industry representatives to discuss the needs and resources of such a program. Schools must also give consideration to the rehoming of excess animals from such activities. Schools should note that laparoscopic artificial insemination and embryo transfer in sheep must only be performed by Veterinarians.
Handling:	Sheep need to be handled calmly and with care to prevent distress and injury to the animals and their handlers. Staff should be familiar with sheep behaviour when using sheep for school activities. A set of solid yards, preferably including a drafting race, simplifies handling. Sheep kept in schools learn routines quickly and respond to food incentives. Two methods of restraint are commonly used – catch and restrain and the catch and turn method. See "The Producers Guide to Sheep Husbandry" listed in the Resources section for more information on these techniques. **Transport:** There are a number of restrictions on the movement of sheep. To ensure that you comply with these restrictions, view the Primary Industries and Regions South Australia website and view the document Land Transport of Livestock Standards and Guidelines document, Activity (v) and the Animal Welfare Regulations 2012 listed in the Resources section in this ACIS.
Hygiene:	After handling or working with sheep, thoroughly wash hands with soap and running water for at least 15 seconds. Dry hands with clean paper towel or an air dryer. Turn off the tap with the paper towel if possible.
Disease prevention:	Schools are encouraged to seek advice from Veterinarians and Animal Industry Representatives and to develop an animal management plan. This plan should outline a calendar of routine husbandry events and treatments (e.g. vaccinations and weaning) the school will undertake throughout the year. Treatments must be documented in the

	appropriate records. Schools should also develop a farm biosecurity plan to assess risks to their enterprise.
Signs of Illness:	**Indicators:** • Disorientation; • Lethargy; • changed feeding habits; • scouring; • nervousness; • listless or lethargy; • parasites; • skin irritation; • discharges from the nose, eyes, anus or genitalia; • separation from or lagging behind the main body of the flock; • lameness; • ill-thrift or wasting; • abnormal gait or a reluctance to rise; and • failure to thrive or grow. Sheep flocks should be monitored at least daily and, preferably, more often. Common ailments amongst sheep flocks include mastitis, bloat, internal parasites, foot rot and flystrike.
Treatments:	Schools are encouraged to develop relationships with a Veterinarian or animal industry representatives (e.g. stock agent) familiar with livestock. These contacts can be used for disease diagnoses, treatment options and dietary, husbandry and welfare advice. Veterinarians can also assist with advice for activities that may illicit pain where pain relief is required and for emergencies particularly when euthanasia is needed. Treatments must be documented in the appropriate records.
Euthanasia:	Where an injury or illness is such that recovery is unlikely then sheep must be euthanised by a Veterinarian. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping sheep.
Disposal/fate planning:	Sheep can be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	It is preferred that sheep remain onsite for quarantine reasons and are not mixed with other sheep offsite, while being used for school activities. Sheep can be taken offsite however with the permission of the school Principal and the carers and on advice from a Veterinarian. Staff should provide carers with animal care and record-keeping instructions, emergency contacts and provide appropriate equipment and food. Animals must be checked daily, records kept and any problems reported to the school immediately whether kept onsite or taken offsite.
Approved activities:	Where an activity is not listed in this ACIS, approval must be sought from the NGSAEC and confirmed before it can be undertaken.
Activity:	**Capture, restraint and handling of sheep**
Objective:	To instruct students on the correct methods of capture, restraint and handling of sheep. Staff should be experienced and familiar with sheep behaviour when undertaking this activity. Sheep that are experienced with handling including walking on a halter are preferred. The use of laneways leading to yard facilities will allow sheep to move freely rather than being forced.
Activity:	**Measurement of body weight, growth or body proportions of sheep (non-invasive)**
Objective:	To instruct students on collecting measurements of body weight from sheep. The animal's growth can be recorded by measuring the sheep's body with a soft plastic tape measure Two handlers are required for the measurement of body proportions using

	low stress handling techniques. One handler is required to restrain the sheep while the other handler takes measurements. It is important to ensure that all the equipment required is ready prior to restraining the sheet. Sheep should not be excessively distorted to make measurements of body parts. Growth measurements can also be shown by photographing or drawing a sheep against an appropriate background scale. Use a sufficient number of sheep to determine individual difference. A sheep's bodyweight can be recorded by weighing it regularly. This measurement should be done with low stress handling techniques (e.g. halter a lead trained sheep to the scales with food training) returning the sheep to its enclosure promptly. Only sheep accustomed to being handled should be used. It is important to ensure that all the equipment (e.g. scales) required is ready prior to catching any sheep. Rubber matting or towels can be used to avoid the surface of scales being slippery. Scales should be cleaned regularly. Recording regular measurements of weight can give an accurate measure of weight over time.
Activity:	**Measurement of body condition of sheep (non-invasive)**
Objective:	To instruct students on the measurements of body condition in sheep A sheep's body condition can be measured using a chart that compares the sheep fat coverage at certain bony points on its body. See the body condition scoring reference in the Resources section of this ACIS for more information.
Activity:	**Measurement of pulse or respiration of sheep**
Objective:	To instruct students on the correct methods for measuring pulse and respiration in sheep Respiration can easily be measured by visually observing a sheep's chest movements as it breathes. Alternatively, sheep can be observed in warmer weather conditions as indications of respiration become more obvious. Observe and record a sheep with its mouth open and nostrils flared, recording the number of nostrils flare movements. The use of a stethoscope or palpating over specific locations on the head or body is required to measure a pulse rate in sheep. With a little practice, students should be able to hear a pulse rate using a stethoscope or feel the pulse with their fingers. One handler should restrain the sheep while a second handler measures the pulse. It is best if students practice using a stethoscope on each other prior to performing this procedure.
Activity:	**Measurement of age by dentition in sheep**
Objective:	To instruct students on the use of dentition to age sheep. Staff should be experienced and familiar with sheep behaviour, handling and restraint when undertaking this activity. Sheep that are experienced with handling including walking on a halter are preferred. See "The how to tell the age of Sheep" link in the resources section of this document.
Activity:	**Measurement of the scrotum and testicles by palpation in sheep**
Objective:	To demonstrate to students the palpation and taking of measurements of a sheep's scrotum and testicles. Staff should be experienced and familiar with sheep behaviour, handling and restraint when undertaking this activity. Sheep that are experienced with handling are preferred. The ram is usually restrained by an assistant in a standing or sitting position. One hand is placed on each side at the base of the scrotum. The handler feels the spermatic cords between thumb and fingers and gradually move down to the epididymis. Without excessive pressure, abnormalities can be felt such as hardness and swelling, and a comparison between the testes can be made by simultaneously using one hand on each side. See the video on "How to check your ram's testicles" link in the Resources section of this document.

Activity:	**Measurement of mild dietary effects in sheep**
Objective:	To instruct the students on measuring mild dietary effects in sheep. Sheep can be observed for dietary preference by offering a range of diets to them that are suitable for sheep. Unsuitable diets should not be fed and sheep must still have access to their normal diet.
Activity:	**Taming/Gentling of sheep**
Objective:	To instruct students in methods of taming or gentling sheep. Staff should be experienced and familiar with sheep behaviour when undertaking this activity. Sheep that are experienced with handling including walking on a halter are preferred.
Activity:	**Collection of wool, milk, faeces and urine samples from sheep (non-invasive)**
Objective:	To demonstrate the collection of samples of hair, milk, faeces and urine from sheep to students. Staff should be experienced and familiar with sheep behaviour, handling and restraint when undertaking this activity. Sheep that are experienced with handling are preferred. Samples of wool, faeces and urine can be collected with minimal restraint. Milk collection is uncommon and will require a little more restraint and is usually done to collect colostrum for newborn lambs.
Activity:	**Collection of saliva from sheep**
Objective:	To demonstrate the collection of saliva from sheep to students. Staff should be experienced and familiar with sheep behaviour, handling and restraint when undertaking this activity. Sheep that are experienced with handling particularly head restraint are preferred.
Activity:	**Collection of blood, faeces and ruminal fluid samples (invasive) from sheep**
Objective:	To demonstrate to students the collection of samples of blood, ruminal fluid or faeces using invasive techniques from sheep. Staff should be experienced and familiar with sheep behaviour when undertaking this activity. Sheep that are experienced with handling including head restraint are preferred. Students must be supervised at all times and handling kept to a minimum. All equipment must be ready prior to capturing and restraining the sheep. Schools should discuss this activity as part of their flock management plan with their local Veterinarian with whom they should already have an established relationship.
Activity:	**Earmarking OR tagging of sheep**
Objective:	To instruct students on the correct method of ear marking and tagging of sheep. Schools should refer to the Primary industries and Regions of South Australia website for sheep tagging requirements (e.g. National Livestock Identification Scheme) needs. Schools must also have a Property Identification Code (PIC) if keeping livestock on site.
Activity:	**Shearing of sheep**
Objective:	To instruct students on the correct method of shearing sheep Shearing should only be undertaken by an experienced shearer. Care must be taken when shearing sheep to minimise cuts and any severe injuries should be discussed in consultation with a Veterinarian to assess the provision of pain relief and to prevent any infection from establishing. It is important to ensure that sheep have adequate shelter post-shearing from the weather elements. Adequate feed and water must be available for newly shorn sheep. Sheep that grow and retain long wool should be shorn annually and fleeces should not exceed 250mm in length. Sheep should be shorn annually.
Activity:	**Pregnancy detection by using an external ultrasound for sheep**

Objective:	To instruct students on the method of pregnancy detection using an external ultrasound for sheep Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. Trained operators or Veterinarian can undertake ultrasound for pregnancy detection.
Activity:	**Hoof paring of sheep**
Objective:	To instruct students on the correct method of hoof paring sheep Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. This should include developing a management calendar of events including hoof paring that will occur throughout the year. Foot health is essential to the wellbeing of sheep and schools are encouraged to monitor sheep daily for signs of lameness. Staff should be familiar with sheep foot anatomy including the normal shape, how to examine sheep for lameness and use only experienced operators to undertake hoof paring. Inappropriate paring can have life-long effects for the sheep's mobility including associated pain.
Activity:	**Crutching of sheep**
Objective:	To instruct students on the correct method of crutching sheep Crutching involves the removal of wool from around a sheep's anus, tail and genital region to prevent the clumping of faeces and urine in this area, known as 'dags'. If not treated, these 'dags' subsequently can lead to the development of flystrike in sheep. The flies are attracted to the smell and lay eggs onto the wool. These then develop into maggots, which then burrow into the sheep's skin at this site. This is painful to the sheep and irritating. Sheep can be seen wriggling their tail and stamping their feet in agitation from the maggots. When crutching a sheep, the wool is removed by the use of a shear and cuts to the skin should be avoided. Crutching is not the same as shearing or mulesing. Shearing is the complete removal of the wool from a sheep's body. Mulesing is considered a prohibited activity (Category 6) by the AEC. When crutching sheep, good hygiene should be practiced in relation to facilities, hands, handling and instruments. Consideration of weather and yard conditions and fly activity should be made when planning the activity e.g. avoid muddy yards and wet or humid weather. Risk of infection can be limited by ensuring ewes have been routinely vaccinated.
Activity:	**Foot bathing and flystrike treatment of sheep**
Objective:	To demonstrate the use of foot-bathing and flystrike treatment in sheep to students. Foot rot is a contagious bacterial disease seen in sheep. In the worst cases, foot rot can be a severely debilitating disease with significant economic loss from reduced wool growth and quality, poor ewe fertility, poor growth rates and reduced value of sale sheep. In infected flocks, there are also significant costs associated with the control of the disease. Foot rot is a notifiable disease in South Australia. Foot bathing or foot paring may be undertaken by staff as a treatment for foot rot without a Veterinarian onsite. However, it is recommended that schools consult with their local Veterinarian to ensure an accurate diagnosis prior to treatment. Flystrike is a condition in sheep where parasitic flies lay eggs on soiled wool or open wounds. After hatching, maggots will bury themselves in the sheep's wool burrowing under the sheep's skin, feeding off their flesh. Once the larvae develop, flies continue to deposit eggs on to new or already infected sheep, starting the infection process over again. Sheep may be seen to display symptoms such as agitation, odour and matted wool, all of which further encourage the attraction of flies. Fly strike is problematic, not only causing loss or reducing the value of stock, but also requiring expenditure of both money and time for effective management. Schools should ensure that any products that are used are suitable for sheep. Doses should be calculated accurately based upon an animal's bodyweight. Schools should talk

	to their local Veterinarian or Animal industry expert for disease information, product advice and treatment application options specific to their flock.
Activity:	**Use of sire harnesses in sheep**
Objective:	To demonstrate the use of sire harnesses in rams to students. Sire harnesses are a harness to be worn by rams. They have crayons attached to the underside that mark the ewes with colour from the crayon that is attached within the harness when they are attempting to mate with the ewes. Harnesses are put on the rams prior to joining (i.e. putting the rams with the ewes.) They are extremely useful as a farm management tool as they can be used for cycle identification, parentage and breed management for example. Different coloured crayons can be used for different rams so you know which ram has mated to which ewes. See link in Resources at the end of this document.
Activity:	**Administration of oral and drench treatments by backline, spray or dip to sheep**
Objective:	To demonstrate the administration of oral and drench treatments used in sheep to students. Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. This should include developing a management calendar of events including drenching that will occur throughout the year. This discussion should also include welfare and withholding periods. All the animals on site should be treated and ensure that products are only used that are suitable. Doses should be calculated accurately based upon an animal's bodyweight. Schools should talk to their local Veterinarian or Animal industry expert for product advice.
Activity:	**Administration of treatments by sub-cutaneous, intra muscular or intravenous injection to sheep**
Objective:	To demonstrate to students the correct method of administering treatments to sheep by subcutaneous, intra-muscular or intravenous injections Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. This should include developing a calendar of events including drenching that will occur throughout the year. This discussion should also include welfare, pain relief use and withholding periods. All the animals on site should be treated and ensure that only suitable products are used. Any doses should be calculated accurately based upon an animal's bodyweight. Schools should talk to their local Veterinarian or Animal industry expert for product advice. Vaccinations can be given to livestock by suitably trained staff without the supervision of a Veterinarian.
Activity:	**Loading and unloading of sheep for transport**
Objective:	To demonstrate the principles of loading and unloading sheep for transport to students Considerations must be given to sheep behaviour when loading and unloading sheep. See Section B11 for Specific requirements for the land transport of sheep in the Land Transport of Livestock Standards and Guidelines and the AEC Sheep Transport Compliance checklist for more information in relation to sheep transportation. This outlines requirements with regards to time off water, long distance travel, food and water requirements when travelling, vehicle and facilities requirements and handling. All sheep must be deemed fit for travel prior to transporting them.
Activity:	**Transport of sheep**
Objective:	To demonstrate the correct methods of transporting sheep to students Considerations must be given to sheep behaviour when loading and unloading sheep. See Section B11 for Specific requirements for the land transport of sheep in the Land Transport of Livestock Standards and Guidelines and the AEC Sheep Transport Compliance checklist for more information in relation to sheep transportation. This outlines

	requirements with regards to time off water, long distance travel, food and water requirements when travelling, vehicle and facilities requirements and handling. All sheep must be deemed fit for travel prior to transporting them.
Activity:	**Castration of sheep and lambs**
Objective:	Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. This should include developing a management calendar of events including castration that will occur throughout the year. Consideration should also be given to staff availability, facilities available including yarding (temporary or permanent yards) and the age of the lambs. This discussion should also include welfare, pain relief use and withholding periods. When castration is required, it should be performed as young as possible, but after the maternal bond has been established and before lambs are 12 weeks old. Lambs destined for slaughter before they are 12 weeks old, or before the onset of puberty should not be castrated. Only experienced operators under the direct/indirect supervision of a Veterinarian or a Veterinarian should undertake castration of lambs under 3 months of age. If undertaken by a non-Veterinarian, appropriate pain relief must be provided, and the operator must be skilled and experienced in performing castrations including post-operative care. Castration of lambs over three months requires appropriate anaesthesia and analgesia and must be performed by a Veterinarian. Castration of adult sheep can ONLY be performed by a Veterinarian. All sheep over the age of 6 months must also have any haemorrhage from the wound controlled appropriately. The method chosen should use the most appropriate tools, be familiar to the operator, comply with legislation and be the least painful method to perform the castration that is applicable to the production system. Good hygiene should be practiced in relation to facilities, hands, handling and instruments with disinfectant being used and changed frequently. Consideration of weather and yard conditions should be made when planning castration of sheep (e.g. choose mild days, not extreme weather days and avoid muddy or dusty yards). Castration should be conducted early in the day to allow time for mothering-up and monitoring by staff. Lambs should be away from their mothers for the shortest time possible. Castration should only occur after a secure maternal bond has been formed between lamb and the ewe (mother). A lamb cradle should be used to restrain lambs and when released they should land on their feet to avoid the wound contacting the ground and being contaminated. Risk of infection can also be limited by ensuring ewes and lambs have been routinely vaccinated. Castration should be done when fly activity is minimal and in conjunction with appropriate preventative flystrike treatments. Wound haemorrhage should be minimised by selecting an appropriate castration method. After castration and when lambs and their mothers are placed into a paddock for recovery, they should be monitored regularly for any signs of post-operative complications during the healing process with minimal disturbance. Any post-operative complications need to be addressed in a swift and appropriate manner. Ewes should be managed to optimize milk production in order to maximize protein availability for the lamb to aid wound healing. When any pain relief or other medications are used on sheep, schools should be in consultation with their Veterinarian, ensure that products are only used that are suitable. Any doses should be calculated accurately based upon an animal's bodyweight. Schools should talk to their local Veterinarian or Animal industry expert for product advice. See the Resources section of this document for more information. "The Producers Guide to Sheep husbandry practices" by Meat and Livestock Australia and the Sheep meat Council of Australia outlines the process of castration in sheep.
Activity:	**Artificial insemination of sheep**
Objective:	To demonstrate the process of artificial insemination in sheep to students. Artificial insemination of sheep should only be undertaken by schools after a discussion with their local Veterinarian as part of their animal management plan for their sheep. Artificial insemination requires skill and should only be undertaken by highly experienced

	operators under supervision of a Veterinarian or Veterinarians. Laparoscopic AI can only be undertaken by Veterinarians. Schools must also give consideration to plans for extra stock created from breeding of sheep and ensure they have the appropriate facilities and resources to provide for the sheep needs prior to undertaking breeding.
Activity:	**Tail docking of lambs**
Objective:	To demonstrate the method of tail docking lambs Schools are encouraged to develop a relationship with their local Veterinarian that is familiar with sheep to develop an animal management plan. This should include developing a management calendar of events including tail docking that will occur throughout the year. Consideration should also be given to staff availability, facilities available including yarding (temporary or permanent yards) and the age of the lambs. This discussion should also include welfare, pain relief use and withholding periods. Tail docking is performed in sheep to reduce the incidence of blowfly strike that may result from urine and faecal staining of the perineum. When tail docking is required, it should be performed as young as possible and before lambs are 12 weeks old. Only experienced operators under the direct/indirect supervision of a Veterinarian or a Veterinarian should undertake tailing of lambs under 3 months of age. If undertaken by a non-Veterinarian, appropriate pain relief must be provided and the operator must be skilled and experienced in performing tail docking including post-operative care. Tail docking of lambs over three months including adults requires appropriate anaesthesia and analgesia and must be performed by a Veterinarian. Tails must be docked just below the third palpable joint from the tail base or through the third joint space and no shorter. Docking the tail at a shorter length can lead to health and welfare problems including increased risks of flystrike, vulval and anal cancers from sun exposure and difficulties with lambing. All sheep over the age of 6 months must also have haemorrhage from the wound controlled appropriately. Tail docking can be undertaken by using a hot knife or rubber ring (elastrator) methods. This is in preference to the sharp knife method or other cutting methods except for larger tails. The method chosen should use the most appropriate tools, be familiar to the operator and the least painful method to perform that is applicable to the production system. Wool shedding breeds of sheep (e.g. Wiltshire Horn, Dorper) and short-tailed breeds don't require tail docking. Good hygiene should be practiced in relation to facilities, hands, handling and instruments with disinfectant being used and changed frequently. Consideration of weather and yard conditions should be made when planning tail docking of sheep (e.g. choose mild days and avoid muddy or dusty yards not extreme weather days). Tail docking should be conducted early in the day to allow time for mothering-up and monitoring by staff. Lambs should be away from their mothers for the shortest time possible. Tail docking should only occur after a secure maternal bond has been formed between lamb and the ewe (mother). A lamb cradle should be used to restrain lambs and when released they should land on their feet to avoid the wound contacting the ground and being contaminated. Risk of infection can also be limited by ensuring lambs have been routinely vaccinated. Tail docking should be done when fly activity is minimal and in conjunction with appropriate preventative flystrike treatments. Wound haemorrhage should be minimised by selecting an appropriate method. After tail docking when lambs and their mothers are placed into a paddock for recovery, they should be monitored regularly for any signs of post-operative complications during the healing process with minimal disturbance. Any post-operative complications need to be addressed in a swift and appropriate manner. Ewes should be managed to optimize milk production in order to maximize protein availability for the lamb to aid wound healing. When any pain relief or other medications are used on sheep, schools should in consultation with their Veterinarian, ensure that products are only used that are suitable for the life-stage of the sheep. Any doses should be calculated accurately based upon an animal's bodyweight. Schools should talk to their local Veterinarian or Animal industry expert for product advice.

	See the Resources section of this document for more information. “The Producers Guide to Sheep husbandry practices” by Meat and Livestock Australia and the Sheep meat Council of Australia outlines the process of tail docking in sheep.
Resources:	**Australian Animal Welfare Standards and Guidelines for Sheep (2016)** www.animalwelfarestandards.net.au/files/2016/01/Sheep-Standards-and-Guidelines-_for-Endorsed-Jan-2016-250116.pdf **Land Transport of Livestock Standards and Guidelines (2012) – Australian Animal Welfare Standards and Guidelines** www.animalwelfarestandards.net.au/land-transport/ **Animal Welfare Regulations 2012 – SA Legislation** www.legislation.sa.gov.au/LZ/C/R/Animal%20Welfare%20Regulations%202012.aspx **South Australia’s Farm Biosecurity Program** www.onebiosecurity.pir.sa.gov.au/Home **Sheep – Animal Health Australia** www.animalhealthaustralia.com.au/species/sheep/ **Body condition scoring of sheep including a video and chart – Agriculture Western Australia** https://www.agric.wa.gov.au/management-reproduction/condition-scoring-sheep **Body condition scoring of sheep video – Central West Local Land Services** www.youtube.com/watch?v=3qdCJEtFDa4 **How to tell the age of sheep – Dept. of Primary Industries NSW** www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/179797/aging-sheep.pdf **How to check ram’s testicles video – Central West Local Land Services** www.youtube.com/watch?v=AZi22RBqblw **Primary Industries and Regions South Australia (PIRSA) - Sheep health and movement information - Moving sheep and goats and NLIS** https://pir.sa.gov.au/biosecurity/animal_health/animal_species/sheep/sheep_goat_movement_documents **Foot rot** www.pir.sa.gov.au/biosecurity/animal_health/sheep/health/footrot **Lice** pir.sa.gov.au/biosecurity/animal_health/sheep/health/sheep_lice/sheep_lice_facts pir.sa.gov.au/biosecurity/animal_health/sheep/health/sheep_lice **Ovine Brucellosis** pir.sa.gov.au/biosecurity/animal_health/sheep/health/ovine_brucellosis **Ovine Johne’s disease** pir.sa.gov.au/biosecurity/animal_health/sheep/health/ojd
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