

AEC STANDARD OPERATING PROCEDURES

SOP No:	18																																										
SOP	Alpacas																																										
Scientific Name:	<i>Vicugna pacos</i>																																										
Category:	2, 3, 4, 5 only																																										
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Approval Level:	<p>Where an activity is not listed in this SOP, approval must be sought from the Animal Ethics Committee and confirmed before it can be undertaken.</p> <p>Government Schools – Department for Education and Childhood Development Animal Ethics Committee Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee</p>																																										
Approved Authority:																																											
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.																																										
Authority approval date:	1 August 2010																																										
Last update:	April 21 2020																																										
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>																																										

General Information:

Alpacas are a member of the South American camelids, which also include llamas, guanacos and vicunas. Young alpacas are termed crias, and less commonly weaners are known as tuis, adult females as hembras and adult males as machos. Alpacas are primarily grown for their fleece but can be used as guard animals and for meat production. Alpacas come in 26 different colours ranging from white, fawn, brown, grey and black to multi-coloured.

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In Australia, there are two breeds of alpaca, the Huacaya (90% of the national herd) and the Suri (10%). The key difference is their fleece type.

1. Huacaya alpacas have a Merino-like fleece, with body fibre that grows straight out from the body.
2. Suri alpacas are covered in pencil-fine locks that hang down, similar to an Angora goat.

Physical Attributes:

- **Size:** 78 cm-104 cm at the withers
- **Average adult weight:** females 60-80 kg, males 70-90 kg
- **Age at adult size:** 2-3 years
- **Life expectancy:** 15-20 years
- **Weight at birth:** 5-10kg
- **Body temperature:** 38°C
- **Heart rate:** 60-80 beats/minute
- **Respiration rate:** 10-30 breaths/minute

Behaviour:

Alpacas are herd animals, so a minimum of two animals should be grazed at all times. They may be run as a sole camelid if grazed with other domestic livestock however, entire male camelids must not be run with females of other species (e.g. ewes, does, heifers or sows). Crias (including hand-reared) must be raised in the company of other camelids. Alpacas are normally alert, inquisitive, social animals that are easily halter trained having a gentle non-aggressive nature. Alpacas groom by regular dust bathing. Alpacas are foregut fermenters so chew their cud, and defaecate using communal dung piles. Alpacas sunbathe to enhance vitamin D production and enjoy sitting in dams/troughs to thermoregulate on hot days.

Alpacas are usually docile animals but exhibit protective instincts. Alpacas may spit, squeal, kick and/or bite infrequently as an act of dominance, aggression, and/or defence if they feel threatened or when defending their young. Where camelids are mixed into new or altered groups, adequate space and time must be provided to allow establishment the new group pecking order.

Environment:

Housing/Space: Alpacas should be grazed on pasture at a stocking rate similar to those for sheep of a similar body weight. 7-strand plain wire fences of 1.2m are adequate. Do not use barbed wire. Alpacas should be grazed/yarded/transported with at least one other alpaca (or other grazing animal) to minimise stress and escape behaviour. To avoid fleece contamination, bedding for penned animals should be made from woven or slatted rubber matting rather than straw. If straw is used, ensure that it is free from seeds, as it is very difficult to remove them from the fleece. Alpacas avoid defecating in their pens unless they are confined for long periods. They usually wait until they can get to the dung pile.

Movement: Alpacas need adequate grazing area to allow for exercise. Suitable yards or catching pens should be available to allow low stress handling for husbandry practices and shearing. Fenced laneways can be used between paddocks to facilitate low stress handling and movements. Quarantine paddocks should be available to hold unwell or new incoming stock prior to being added to a herd. These paddocks should be located on the boundary of the property or near key animal handling facilities, with wash down facilities available.

Temperature: Alpacas can survive harsh conditions but are susceptible to heat stress and cold stress so require access to trees for shade and protection at all times.

Shelter: All alpacas should be offered adequate trees/permanent shelter in any paddock/yard. Crias and freshly-shorn alpacas need protection from the cold, which could include shedding in the event of a sheep weather alert.

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Cleaning: Yards should be checked daily with contaminated feed and faeces removal regularly. Hay should be provided in racks off the ground.

Feeding:

Daily requirements: A maintenance diet consists of 1.5% of body weight on a dry matter basis, daily. The additional energy and protein needs of lactating alpacas increase the daily requirement to 2-3%. Alpacas must have access to clean, fresh drinking water at all times, with alpacas drinking up to 4 L daily.

Supplementary feeding: may be necessary if pasture quality and/or quantity is insufficient. Alpacas should be supplemented *ad lib* up to maintenance requirements using hay/silage of 8-10% crude protein. Concentrates can be used to provide more energy/protein to growing, pregnant and lactating alpacas. Seek advice from your local veterinarian.

Breeding:

- **Gestation period:** 342 days (11.5 months)
- **Sexual maturity:** females, 12 - 18 months; males, 12 - 36 months
- **Weaning age:** 4 months

Clean, sheltered paddocks that have been rested against parasites, protozoa, bacteria and viruses should be used at unpacking time. As females need to be monitored prior to and during labour, a location that is quiet, yet easily accessible to the school staff is preferred. It is recommended that schools discuss alpaca health and welfare including breeding with their local Veterinarian prior to undertaking a breeding program, for example to plan for routine treatments and also in the case of an emergency.

Handling:

Humans: Alpacas need to be handled calmly and with care to prevent distress and injury to the animals and their handlers. When working with alpacas, consistently quiet and slow behaviour makes them easier to handle and they usually herd easily. Alpacas learn quickly and will learn to come up to a feeding pen when called. They need to be shorn annually, generally in spring. Shearing of alpacas should be only undertaken by an appropriately trained person so as not to compromise the welfare or health of the animals or the safety of the animals or people involved. Alpacas produce 1.5-4 kg of fleece.

Equipment: Electric sheep-shearing equipment is normally used, but because alpaca fibre is non-greasy, care needs to be taken that shears do not over-heat (i.e. running handpiece at lower speed).

Transport: See Section B1 for specific requirements for the land transport of alpacas in the Land Transport of Livestock Standards and Guidelines and the Animal Welfare Regulations 2012 for more information in relation to alpaca transportation.

Hygiene:

Thoroughly wash hands with soap and running water for at least 15 seconds after working with or handling alpacas. 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 to develop an **animal management plan**. This plan should outline a calendar of routine husbandry events and treatments (e.g. vaccinations, parasite control, vitamin D treatment 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:

- change in normal demeanour
- listless or lethargic
- regular dust-bathing habits or bathing in unusual places
- tucked-up appearance or abnormal posture
- failure to thrive or grow
- weight loss

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- diarrhoea or low faecal production
- loss or change of appetite
- stiff gait, swollen joints or lameness
- persistent coughing, gasping or panting
- skin lesions or abnormal growths
- patchy coat or loss of hair and/or excessive scratching or rubbing
- abnormal discharges from the nose (e.g. snotty nose) or ears
- abortion or infertility.

Alpacas' health should be monitored daily at least.

Treatments:

Schools are encouraged to develop relationships with a Veterinarian and animal industry representatives (e.g. experienced alpaca breeder) familiar with alpacas. These contacts can be used for discussing treatment options and dietary, husbandry and welfare advice. Veterinarians can assist with disease diagnoses and 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. During and after treatment, sick or injured alpacas should not be kept alone unless absolutely necessary. As often as practicable, post-mortems should be carried out to assist in monitoring the health of the herd and modifying husbandry practices.

Euthanasia:

Where an injury or illness is such that recovery is unlikely then an alpaca must be euthanised by a Veterinarian. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping alpacas. Any adverse event including death must be reported to the AEC using the ADVERSE EVENTS form. Forms must be returned to the AEC within 7 days of the event occurring.

Disposal/fate planning:

Alpacas can be sold privately or at auction. They must not be released into the wild. Carcasses must be disposed of in accordance with local council regulations. All properties require a Property Identification Code to hold livestock including alpacas kept at schools. Please see the Resources section of this document for more information.

Holiday and weekend care:

It is preferred that alpacas remain onsite for quarantine reasons and are not mixed with other livestock offsite, while being used for school activities. Alpacas 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 SOP, approval must be sought from the Animal Ethics Committee and confirmed before it can be undertaken.

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Activity: a. **CAPTURE, RESTRAINT AND HANDLING of ALPACAS**

Category: Category 3

Objective: To instruct students in methods of capturing for human handling in yard facilities; to lead, tie up and stand in show setting.

Before handling, alpacas must be herded into a familiar smaller enclosure to assist with capture. Isolating an animal is best performed by reducing yard size and group size concurrently. Illumination should be uniform and shadows and bright spots minimised in this handling area. Objects or items such as clothing hanging on a race may stop animal movement. One method of confining the herd is to use a moveable fence, working in a quiet, calm manner. A moveable fence can be established by having a long rope held at waist height between two people and stretched across a paddock. This enables alpacas to be herded to a particular location. Extra care should be taken when handling pregnant alpacas, crias, sick alpacas, machos or isolated alpacas. Always ensure that an alpaca has one or more alpacas in close proximity or view to reduce stress and possibly dangerous to the handler.

Before students attempt restraint and halter placement, they should be familiar with alpaca behaviour and be instructed to move quietly and slowly. Capture is easiest with the handler's arm placed firmly but gently around the animal's neck. Even though most alpacas do not enjoy being cuddled or touched around the head, they will relax in this position.

Ensure halters fit correctly. The nose band must sit high up on the bony part of the nose. Poorly fitted halters can allow the nose band to slide down over the soft tissue of the nose, and cause suffocation. Halters should be removed from alpacas when not in use. Tethering must only be used as a short-term form of restraint, in the presence of adequate close supervision, as alpacas are prone to entanglement.

Alpacas can be restrained for a procedure by holding the animal's head and neck firmly to the handler's chest with the other hand resting over the withers. If necessary, another handler can be used to hold the back end of the animal firmly against the side of the pen, taking care to ensure the animals cannot get its legs caught in the fencing.

Alpacas can be chucked, a procedure where a rope is tied firmly around the hindquarters to immobilise the rear legs and keep the animal in kush. The rear legs can be lifted and the feet placed into the loop of soft rope under the abdomen.

If it is necessary to lay the animal down, use two people standing on one side of the animal. Both lean across the animal's back and grasp the legs closest to the handlers. Carefully flip the animal over with the front handler also supporting the neck.

Avoid penning animals for long periods (e.g. several hours) unless directed by a Veterinarian. Return them to feed and water as soon as possible after handling and yarding.

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Activity: **b. TRAINING OF ALPACAS**

Category: Category 3

Objective: To instruct students in methods of training alpacas

Staff involved in this activity should be familiar with alpaca behaviour. Alpacas should be trained as young as possible to minimise stress when handling them. Young animals can be easy train but training should be avoided at the same time as weaning where possible due to stress. Newly weaned alpacas are dealing with a dietary ration change and potentially new pen mates and adding training to this may be significantly stressful. Older animals that have been handled extensively and are well tamed will be the most suitable to purchase for the school environment. Older, untamed animals may never settle in and are likely to become stressed when handled extensively by students. Even when there is adequate pasture, animals can be given a small amount of hand feeding each day to help the taming process. Alpacas learn quickly and will learn to come up to a feeding pen when called. Alpacas respond to calm and gentle handling using visual and audio cues rather than physical contact. They prefer not to be touched on the head. Each individual animal's flight zone will influence how the animal can be handled and how they will react to a handler and groups of students. Alpacas will have a decreased flight zone after extensive handling when they feel comfortable around the handler and in handling facilities.

Activity: **c. TRAINING AND GROOMING FOR SHOWING**

Category: Category 3

Objective: To instruct in methods of preparation of alpacas for showing, including grooming, washing, combing, clipping and halter training

Alpacas are very trainable animals and will easily respond to food rewards, coming up to a feeding pen when called or at a routine feed time. All school alpacas should be halter trained to make working with them more efficient and safer for all involved. To do this, the handler needs to hold an animal firmly and use a reassuring voice. With a lead attached to the halter, the handler stands in front, faces the alpaca and pulls the animal gently forward. As soon as the animal takes a step forward, the tension on the lead is loosened. Continue this process until the animal walks with the handler. The alpaca can then be taught to walk beside the handler. With young alpacas that are happy to be handled, it may be easier for the handler to walk beside the animal with one hand holding the lead. A young alpaca will frequently follow a companion who has already been halter trained, making the job much easier. Animals that will be used for showing need to become comfortable with being groomed and having their head trimmed. Grooming consists of picking debris off the fleece and lightly blowing the dirt/dust out of the fleece. Ensure that any grooming equipment you use is not compromising the alpaca's welfare when doing so. Most shows have classes for alpaca wethers (castrated males) and fleeces.

Activity: **d. ADMINISTRATION OF ORAL DRENCH TREATMENT TO ALPACAS**

Category: Category 3

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Objective: To instruct students in the procedures for the administration of treatments

Worm control is an important part of any preventative health program when farming alpacas. Regular faecal testing is recommended to determine if and what types of internal parasites are present. When treating for internal and external parasites, all animals should be treated at the same time and pastures should be rotated in conjunction with the drench program. These activities need to be documented in the appropriate records. No products are licensed for use in camelids so all dosing is considered off label and must be given in consultation with a Veterinarian. Animals should be dosed according to the product labelling with a species appropriate product. Ensure the dose is calculated accurately. The animal should be securely restrained and the nozzle of the drench gun placed in the cheek towards the pharynx. Hold the animal's head level until it has swallowed the drench (otherwise it will lean forward and let the drench drip out onto the ground). Consult your veterinarian for product advice because use is off-label as no products are registered for use in camelids in Australia. Any drenching treatments should be documented in the appropriate records.

Activity: **e. ADMINISTRATION OF TREATMENTS BY SUBCUTAENOUS OR INTRAMUSCULAR INJECTIONS TO ALPACAS**

Category: Category 4

Objective: To instruct students in the procedures for the administration of treatments given by subcutaneous or intramuscular injections to alpacas

Schools are encouraged to develop an animal management plan for their flock. This outlines the events in calendar form for the year including vaccinations. All of these activities need to be documented in the appropriate records. Alpacas should be vaccinated on advice from your local veterinarian. It is common to use a clostridial vaccination. It may also be advisable to give mineral supplementation (e.g. vitamin D) and this should also be discussed with your local veterinarian. Vaccinations are injected subcutaneously and can be administered to livestock by suitably trained staff without the supervision of a veterinarian. Injections should be subcutaneous (under the skin) and placed behind the elbow or on the shoulder. When using medications, chemicals and equipment, care must be taken to: read labels carefully, determine correct dosage rates, store chemicals, medications and bandaging appropriately and use protective clothing when required. Because all drugs use if off-label in camelids, withholding periods (WHPs) of products are unknown. However, if a label says "not for use in food producing animals" THEN IT MUST NOT BE USED IN ALPACAS (e.g. chloramphenicol, enrofloxacin, phenylbutazone).

Activity: **f. COLLECTION OF FAECAL AND URINE SAMPLES FROM ALPACAS (NON-INVASIVE)**

Category: Category 2

Objective: To instruct students in the process of collection of faecal and urine samples

Ensure that staff and students wear gloves and follow strict hygiene procedures when collecting faecal or urine samples. Faeces can be easily collected from a communal dung pile. To collect faeces from a particular

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animal, clean up the dung pile and place a large cloth or feed bag over the dung pile. The animal will defecate on top of, or very close to it.

Collection of urine would rarely need to be carried out. If it is deemed necessary, hold the alpaca in a clean yard for 15 minutes, then allow it out onto a dung pile to urinate and collect urine into a container using a long pole.

Activity:

g. EAR TAGGING OF ALPACAS

Category:

Category 4

Objective:

To instruct students in ear tagging used to identify individual animals in a herd situation

Ear tags: Registered alpacas have a brass ear tag that is placed on the left ear for a male and on the right ear for a female. Plastic numbered tags may be used in the opposite ear. Applicators and tags should be smooth, sharp and thoroughly cleaned. Ensure that the animal is restrained to avoid soft tissue damage. Make sure the tag avoids cartilage ridges and major blood vessels. Please contact your animal industry representative or local Veterinarian for advice.

Activity:

h. MEASUREMENT OF GROWTH OF ALPACAS

Category:

Category 2

Objective:

To instruct students in methods of measuring growth, including wool growth of alpacas

Alpaca growth can be monitored by measuring the circumference of the chest, and comparing to body weight if scales are available. Wool growth can be measured by using a ruler to take a series of random measurements on different sections of the animal's fleece. Students can compare growth rate of the different sections. While the quality of the saddle and neck fleece may often be similar, it is the different growth rates that necessitate its separation during classing. After shearing, wool can be sent off for fibre diameter analysis. This process is quite cheap and provides an excellent resource for students.

Activity:

i. MEASUREMENT OF BODY WEIGHT OF ALPACAS

Category:

Category 2

Objective:

To instruct students in the measurement of body weight

Alpacas that are handled regularly can be easily trained to stand quietly on livestock scales. Rubber matting can be used to avoid the surface being slippery. Scales should be cleaned regularly.

Activity:

j. MEASUREMENT OF BODY TEMPERATURE OF ALPACAS (INVASIVE)

Category:

Category 3

Objective:

To instruct students in the invasive measurement of body temperature

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Temperature is measured rectally using a clinical thermometer. Ensure that the animal is carefully restrained and use a plastic digital thermometer dipped in lubricant to prevent mucosal damage. Glass thermometers are not recommended. The thermometer should be held inside the anus gently against the rectal wall when taking the temperature, to ensure an accurate reading. Ensure students wear gloves and follow appropriate hygiene procedures.

k. MEASUREMENT OF RESPIRATION AND PULSE RATE

Activity:

Category 2

Category:

To instruct students in the measurement of respiration and pulse rate

Objective:

Observation of respiratory rate is best done from a distance prior to handling to obtain a representative value.

The pulse can be recorded by feeling the animal's carotid artery at the base of the jaw. With a little practice, students should be able to listen to the heart using a stethoscope placed behind the elbow on the left side. It is best if students practise using a stethoscope on themselves prior to performing this procedure. Alternatively the femoral artery can be used for checking the pulse but beware of alpaca trying to kick out.

I. COLLECTION OF WOOL FROM ALPACAS (NON-INVASIVE)

Activity:

Category 2

Category:

To instruct students in the procedures for collecting wool samples

Objective:

To collect a small sample, scissors can be used to cut a sample as close to the skin, from the mid-side point of the saddle as is safely possible. Ensure that the animal is restrained securely.

m. SHEARING OF ALPACAS

Activity:

Category 4

Category:

To demonstrate to students the procedure for shearing alpacas

Objective:

These procedures should ONLY be carried out by an experienced shearer or handler.

In the 24 hours leading up to shearing try to avoid feeding chaff or loose hay to avoid fleece contamination. Before shearing, it may be necessary for students to pick off debris and blow out dust. Cleaning can also be done with a piece of wooden dowel, a specially made wire wand (for Huacaya), or horse grooming mitt (for Suri). Alpacas should be held off feed and water for at least 3 hours prior to shearing to minimise urination and defaecation during shearing.

Perform shearing on a clean floor or place a large, clean tarpaulin on the ground. Alpacas are restrained by being stretched out on the floor or shearing table and having their legs tied to wooden spacers. A handler holds the head of the animal. When one side of the animal has been shorn, the animal is flipped over and the other side is done. It is important to have the fleece as clean as

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possible before shearing. Students can class and separate the fleece after shearing and maintain the shearing area.

Activity:

n. NAIL TRIMMING OF ALPACAS

Category:

Category 3

Objective:

To demonstrate the procedures for nail trimming

Alpacas' nails need regular checking and trimming as necessary to prevent them becoming long/growing into pad. **Trimming should only be done by an experienced person using appropriate equipment.** This activity should not be conducted in conjunction with shearing as it may cause contamination of fleeces.

Activity:

o. FILING OF FIGHTING TEETH OF ALPACAS

Category:

Category 3

Objective:

This is not a routine husbandry practice.

Alpacas have two sets of teeth throughout their life. A deciduous (baby teeth) and a permanent set. All the deciduous teeth are lost by the time an alpaca r. Males, castrated alpacas and some females grow 'fighting teeth' which are used to establish dominance in the herd and can inflict severe injury to other alpacas and humans. Fighting teeth must be filed down avoiding pulp tissue or removed under anaesthesia. Cutting teeth with blade instruments should not be performed as it risks tooth or root fractures. Long incisors may be filed BY A VETERINARIAN FOR AESTHETIC PURPOSES ONLY (MUST NOT ENTER PULP CAVITY). Incisor teeth (I1-3) must not be ground down. Molar (cheek) teeth may cause pain in older alpacas and require veterinary assessment and treatment. **Recommended best practice is that dentistry on alpacas should be performed under the supervision of a Veterinarian using pain relief +/- sedation or anaesthesia for fractious alpacas.**

Activity:

p. PREGNANCY DETECTION BY ULTRASOUND IN ALPACAS

Category:

Category 2

Objective:

To demonstrate ultrasonography to students to confirm pregnancy

Initial screening for pregnancy is made by placing a recently mated female in a small yard with an intact male. If she spits, squeals, kicks and/or tries to escape (known as "spitting off"), it indicates she is sexually non-receptive, and likely pregnant depending on date of last mating. Only Veterinarians or appropriately trained experienced operators should be performing trans-abdominal pregnancy diagnosis using ultrasound. Pregnancy can be confirmed around 60 days.

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Activity: **q. MILK COLLECTION (non-invasive)**

Category: Category 2

Objective: To demonstrate to students the procedure of collecting milk, if a newborn cria requires hand feeding

This procedure should only be carried out if a weak, newborn cria needs hand feeding. It is important to maintain strict hygiene procedures throughout i.e. wash hands well, before milking, and wipe teats afterwards with iodine and disposable towel. To obtain the milk, hand milk using thumb and index finger and catch milk in a clean jug. To avoid milk inhalation into the airways of newborns when feeding please follow recommendations from your veterinarian when bottle feeding cria.

Activity: **r. CASTRATION**

Category: Category 4

Objective: To instruct students in the procedures for castration of alpacas

Recommended best practice is castration performed by a Veterinarian with the use of pain relief. Elastrator® or other rubber rings **must never be used** to castrate alpacas as their scrotal anatomy is unsuitable. Alpacas need to be allowed to mature sufficiently prior to castration to optimise development of the musculoskeletal system, unlike other animals where castration is performed when the animal is as young as possible. Pain and distress in performing this procedure needs to be addressed and minimised. Schools are encouraged to develop a relationship with their local Veterinarian and develop and animal management plan for their school, which outlines events for the year including castration. This includes a discussion relating to welfare, pain relief and withholding periods for medications used especially as there are no products licensed for use in camelids. Schools must ensure that they can provide for the needs of post-operative care as well.

Activity: **s. LOADING AND UNLOADING OF ALPACAS**

Category: Category 3

Objective: To instruct students to load camelids for transport

Staff experienced in alpaca behaviour and able to display good stockmanship skills and patience are essential when yarding, selecting, loading and unloading alpacas for transport. Correct design of yards, loading ramps and other associated equipment is necessary to facilitate loading and unloading with minimum distress and risk of bruising and/or other injuries. Alpacas must be examined prior to transport to ensure they are fit and healthy to load and travel for transportation. Before transport, animals should be held off green feed for a minimum of 4 hours, but for no more than 12 hours. Refer to the MLA Fit To Load guidelines in the Resources Section for more information.

Activity: **t. TRANSPORT OF ALPACAS**

Category 3

AEC STANDARD OPERATING PROCEDURES

Category:	To demonstrate to students the appropriate procedures for transporting alpacas
Objective:	<p>Considerations must be given to alpaca behaviour when loading and unloading alpacas for transport. See Section B1 for Specific requirements for the land transport of alpacas in the Land Transport of Livestock Standards and Guidelines and the Animal Welfare Regulations 2012 for more information in relation to alpaca transportation. These documents outline requirements with regards to time off water, long distance travel, food and water requirements when travelling, vehicle and facilities requirements and handling. All alpacas must be deemed fit for travel prior to transporting them. Electric prodders must not be used when transporting alpacas. Alpacas must have sufficient space in the vehicle to sit down or lie on their sternums and sufficient cover must be provided to protect alpacas of less than 12 months of age or less than 10 days off shears. Alpacas generally travel in the kush position and vehicles should have solid flooring. On long journeys, cushioning should be provided in the form of rubber matting, carpet, straw or similar. Females with crias less than 10 days old should not be transported unless under the direct instruction of a Veterinarian. All persons involved in the transport of livestock must ensure that they are aware of and comply with their obligations under the relevant legislation.</p>
Resources:	<p>Glove Box Guide to Alpacas, Hardcopy book by Dr Jane Vaughan BVSc, PhD, MACVSc. Everything you need to know about farming alpacas in Australia. Order form here: https://criagenesis.cc/alpaca-husbandry/</p> <p>CriaGenesis Free PDFs on husbandry, biosecurity, nutrition, reproduction and parasite control in alpacas under Australian conditions, written by a veterinarian. www.criagenesis.cc</p> <p>Australian Alpaca Association Resources for shearing, processing, biosecurity, showing, school education including primary school resources, the Alpaca Youth Education Committee and parading and judging alpacas alpaca.asn.au/</p> <p>Body condition scoring of Alpacas Fact sheet – Australian Alpaca Association ver.org.au/pdf/upload438.pdf</p> <p>Australian Veterinary Association Code of Welfare for Alpacas and Llamas Australia 2016 www.ava.com.au › policies › 2016-aav-camelid-welfare-code-19091</p> <p>Body condition scoring alpacas (includes video)</p> <ul style="list-style-type: none">• Australian Alpaca Association: ver.org.au/pdf/upload438.pdf• Camelid Veterinary Services UK: www.ukalpacavet.com/resources/body-condition-scoring-alpacas/

AEC STANDARD OPERATING PROCEDURES

Department of Primary industries and Regional Development NSW– Basics of alpaca keeping.

<https://www.agric.wa.gov.au/small-landholders-western-australia/basics-alpaca-keeping>

E-Alpaca

eAlpaca provides pedigree and show services to national alpaca associations
www.ealpaca.com.au/

Camelid Dentistry – Nunoa project Peru

www.nunoaproject.org/Resources/camelid_dentistry_nunoa1.pdf

Diseases of Alpacas in Australia - Patrick Staples, State Veterinary Diagnostic Laboratory, EMAI, Menangle

www.flockandherd.net.au/other/reader/diseases-of-alpacas.html

Alpacas and Farm Biosecurity

alpaca.asn.au/q-alpaca/

www.farmbiosecurity.com.au/industry/alpacas/

criagenesis.cc/alpaca-biosecurity/

Alpacas and worming

www.agrifutures.com.au/product/studies-on-gastrointestinal-nematodes-worms-of-alpacas/