

AEC STANDARD OPERATING PROCEDURES

SOP No:	24	
SOP	Pigs	
Scientific Name:	<i>Sus scrota domestica</i>	
Category:	2, 3, 4, 5	
Approved activities	Activity	Category
	a. Observation of particular pig behaviours	2
	b. Capture, restraint and handling of pigs	2
	c. Measurement of body weight and growth (non-invasive)	2
	d. Measurement of body condition of pigs with ultrasound (non-invasive)	3
	e. Collection of samples (e.g. hair, faeces and urine (non-invasive) from pigs	2
	f. Administration of subcutaneous & intramuscular injections to pigs	4
	g. Ear tagging in pigs	
	h. Tattoo application of pigs	4
	i. Tail docking of piglets	4
	j. Tooth trimming or removal in piglets	4
	k. Commercial activities (e.g. pig enterprise)	4
	l. Castration of pigs	5
	m. Nose ringing of pigs	5
	n. Artificial insemination of pigs	5
o. Loading and unloading pigs into transporters	3	
Approval Level:	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.	
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:	21 April 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>	
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: The most common breeds of pigs are the Large White, Landrace, Hampshire, Duroc and Berkshire. With the exception of pregnant sows, adult boars and sick animals, pigs should not be kept as solitary animals due to their social nature. Healthy pigs are vigorous and alert with a good appetite, produced normal firm dung, have moist snouts, warm ears and skin that is in good condition.

Schools that wish to maintain a pig enterprise need to select a breed suitable for their local climatic conditions, the facilities available and the market accessibility for any outputs. Schools also need to be aware there are restrictions on the movement of pigs. To ensure you comply with the appropriate legislation, view the Primary Industries and Resources SA (PIRSA) website.

Pigs can act as a source for harbouring disease which risks exposing other species to diseases as well. Schools should be aware of the risks and that their entire animal group (e.g. sheep, chickens), not just their pigs may be compromised, not and in the worst case euthanised to prevent disease spread. Appropriate housing including quarantine and isolation facilities should be discussed with a Veterinarian or Animal industry representative including an animal management plan prior to engaging in activities that use pigs.

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- Physical Attributes:**
- **Size:** medium-sized farm animal.
 - **Weight (adult):** 100 kg – 300 kg
 - **Age at adult size:** 12-24 months
 - **Sexually mature:** gilts may be mated from 8 months if well developed or at least 130kgs
 - **Weight at birth:** 1 kg – 2 kg
 - **Body temperature:** 39°C (+/- 0.5°C)
 - **Heart rate:** 70 beats/minute (range 60-75)
 - **Respiration rate:** 20-50 breaths/minute

Behaviour: Pigs generally seek the company of other pigs, as they are inquisitive by nature and playful with others. Pigs with the exception of pregnant sows, adult boars and sick animals, should not be kept as solitary animals. Piglets especially find comfort in group, like to socialise and sleep next to one another. Overcrowding can induce stress. Pigs are curious, active animals and given the opportunity they will forage and root in the ground. Grunting is common when they are disturbed. Pigs develop their own personal space referred to as their flight zone. A group of pigs have a collective flight zone depicted by their individual characteristics, breed, age, environment and previous handling experiences. See the section on Handling below for more information.

Environment: **Space:** The environment will depend upon the level of intensity that is suitable in the school situation. Wherever possible, the maximum amount of space should be provided, with access to the outdoors and environmental enrichment. Pigs require sufficient space to lie with limbs extended, to be able to stretch and move freely, to sleep, feed and dung. They should have a clean, dry place on which to lie, ensure there is sufficient space, exercise is usually obtained through interactions such as seeking food, water and playful behaviour that is often quite physical. For sleeping, pigs must be provided with dry nesting material, with straw recommended, which is placed well away from the toileting area.

For a sow kept in group housing, the floor space of the housing should not be less than 1.4 square metres and for gilts over 100kgs not less than 1 square metre. The requirements depend upon the age and weight of the pig. For more minimum space requirements of Pigs refer to the Animal Welfare Regulations 2012 South Australia document.

Covering: All enclosures must be able to be secured (locked). Pigs must not have access to an electrical wiring that they may chew.

Shelter: Pigs require sunlight but are susceptible to sunburn and must always have access to shelter and shady conditions. This is particularly important when caring for white breeds of pig.

Temperature: The optimum growth temperature for pigs is 22°C. For farrowing sows, a range of 20°- 30°C and, for growing piglets, 15° - 30°C, is appropriate.

Ventilation: Piggeries should be designed to let fresh air in without causing draughts. Fresh air is necessary to prevent the build-up of poisonous gases, in particular ammonia.

Cleaning: Use hoses in well-drained piggeries or shovels to remove solid waste. Alternatively, flushing drains, which are self-cleaning, can be installed. Artificial or natural light is required, as it provides a better environment for growth and health.

Feeding: **Diet:** Use pellets as a commercial diet to suit animal type and growth stage, (e.g. Pig Grower, Pig Finisher, Sow Pellets and Piglet Creep Feed). Note that the **feeding of food scraps, called swill, is illegal**. Most producers demand feed through to slaughter, but good references are available on diet formulation for the various stages of production. While piglets, growers, finishers and pregnant and lactating sows are ad lib fed, dry sows and boars should be fed daily in amounts sufficient to maintain condition.

Water: Clean, adequate supplies of water, placed in cool, shaded areas in hot weather are essential. If automatic nipple drinkers are used, they should always be fitted with fail-safe mechanisms.

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Disease prevention: Disease control methods and parasite control programs should be developed in consultation with Veterinarians familiar with pigs, as part of an animal management plan. Consideration should also be given to discussing the pigs' ongoing welfare with a Veterinarian when being cared for by the school. This includes pain management for any activity that may illicit pain and pain relief medication is required. This is particularly important not only for the animal's welfare but to ensure compliance with withholding periods where pigs are utilised for meat production. Treatments must be documented in the appropriate records. Schools should also develop a farm biosecurity plan to assess risks to their enterprise. Consideration must be given to what other species of animals the school has on-site.

Breeding:

- **Gestation period:** 112-115 days
- **Number of offspring:** average litter 8-15 piglets (can be up to 20)
- **Weaning age:** 4 weeks

Any school considering breeding pigs should consult with their local Veterinarian before acquiring any pigs. An animal management plan can be designed to plan treatments, movements on and off farm etc. to aid with pig health and welfare.

Handling:

Humans: In general, pigs used in schools should be docile and familiar with being handled. Pigs are not usually aggressive however this is more commonly seen in protective sows with piglets and mature male pigs, so should always be handled carefully. Any pigs that show aggressive behaviour should be handled with care and removed from the school. If an individual pig's flight zone is penetrated, the pig will move away to regain a more comfortable distance from the intruder. Pigs raised in a pen with close contact to humans will have a smaller flight zone and be more comfortable when handled compared to pigs raised in a free ranging setting. Unlike other farm animals, pigs are not usually herded in paddocks and are much slower moving, making their flight zone not as influential to handling. Only pigs in a free-range system will need to be herded over a large area. However, when moving pigs in a small area such as a yard it is still important to take into consideration that some pigs will be more acclimatised and comfortable with handling and others may become quite stressed. Pigs have a very inquisitive nature, which should be used to the advantage of the handler when moving them. If they are not hurried and can explore as they go, they can be driven and moved with minimal effort.

Equipment: Pig board, slip noose or crate

Transport: Considerations must be given to pig behaviour when loading and unloading pigs. See Section B9 Specific requirements for the land transport of pigs in the Land Transport of Livestock Standards and Guidelines and the Animal Welfare Regulations 2012 for more information in relation specific requirements for pig transportation.

Hygiene:

Thoroughly wash hands with soap and running water for at least 15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.

Signs of illness:

Indicators:

- change in their natural demeanour,
- failure to thrive or grow
- listless or lethargic.
- Diarrhoea or constipation,
- weight loss,
- loss or change of appetite
- vomiting
- bathing in unusual places;
- abortion or infertility
- abnormal discharges from the nose (e.g. snotty nose) or ears
- persistent coughing, sneezing, gasping or panting.
- skin lesions or abnormal growths
- tucked-up appearance or abnormal posture
- stiff gait, swollen joints or lameness
- increased mortalities within the herd
- patchy coat or loss of hair or

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- excessive scratching or rubbing

Pigs' health should be monitored daily at least and preferably more often. Common conditions amongst pigs include injuries from misadventure, foot abscesses and minor wounds.

Treatments: Schools are encouraged to develop relationships with a Veterinarian and Animal industry representatives (e.g. stock agent) familiar with pigs. 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 a pig must be euthanised by a Veterinarian. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping pigs. 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: Pigs can be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations. Schools must follow movement restrictions as per the PIRSA website.

Holiday and weekend care: It is preferred that pigs remain onsite for quarantine reasons and are not mixed with other pigs, livestock or poultry offsite, while being used for school activities. Pigs 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. This information should include biosecurity practices and restrictions relating to contact with other species. Pigs 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.**

Activity: **a. OBSERVATION OF PARTICULAR PIG BEHAVIOURS**

Category: **Category 2**

Objective: **To instruct students in observing a particular pig behaviour**

Students should remain calm when observing pigs so as not to scare them. Behaviours that can be observed include feeding behavior and rooting for forage.

Activity:

b. CAPTURE RESTRAINT AND HANDLING OF PIGS

Category:

Category 2

Objective:

To instruct students in the appropriate methods of capture, restraint and handling of pigs in existing yard facilities

Ensure that students are calm, quiet and display non-aggressive behaviour when handling or capturing pigs. When moving pigs, first prepare the movement path (with gates fixed into position as necessary), remove objects and ensure lighting is consistent. The position of the handler in yards is extremely important to move pigs into a race or small pen with minimal stress. Never rush the pigs as they will become stressed and panic, form a scrum and become very unpredictable. Drive the pigs from behind using a stock board and handle pigs in a smaller group to reduce the potential for jamming. If the herd jams, don't force the pigs at the back but encourage those at the front to move. Alternatively, tickle or pat their sensitive backs. Avoid isolating pigs as they will become stressed and unpredictable. Never

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use a stick or hand to hit the pigs. Consider what a pig's flight zone will be before handling it as this will dictate how close you should go to the pig to encourage it forward. It is always best to approach pigs slowly so that you can get an idea of how sensitive the individual animals will be to being handled. Capture should be done quietly, quickly and firmly and every effort should be made to minimise the duration and amount of restraint, pain and distress to the pigs.

Pigs of different ages require different handling methods. Piglets can be caught from behind and lifted by one or both hind legs. A wall or corner can be used when handling middleweight animals. Older, full sized pigs are much harder to restrain and may require the use of a pig catcher.

Long periods of restraint are not recommended and often lead to loud squealing. Comfortable restraint will extend the capture time. Pigs must not be restrained by tethering.

Activity: **c. MEASUREMENT OF BODY WEIGHT AND GROWTH (NON-INVASIVE) OF PIGS**

Category: **Category 2**

Objective: To instruct students to measure body weight, condition, growth proportions

Growth rates and condition are measured to monitor animal health, determine nutritional needs, plan remedial actions and provide data for analysis and planning. To gain accurate measurements for comparison of on-farm performance of different breeders, all pigs should be tested under the same growing conditions to ensure that genetic differences in performance appear. Only animals that are accustomed to handling should be used. The physical measurement of proportions and body weight should take a short period of time so that stress levels are reduced.

Piglets may be weighed using a supportive sling or container, depending on their size and age. Piglets can be held to allow measurements to be taken. This needs to be done quickly, as generally the piglets will squeal loudly, causing distress to the sow. Larger animals can be held against a wall or corner for short periods of time. The use of measuring sticks and digital photography can increase the ease of measuring and recording. Pigs will need to be walked onto scales for weighing. Measurement of a pig's back fat must be undertaken in a way that does not penetrate its skin. The depth of back fat over the eye muscle is the best single measurement of lean meat content on pigs. The measurement is taken 65 mm down the left side from the midline at the level of the head of the last rib.

Activity: **d. MEASUREMENTS OF BODY CONDITION WITH ULTRASOUND (NON-INVASIVE) OF PIGS**

Category: **Category 3**

Objective: To demonstrate the method of undertaking measurements of body condition with an ultrasound

Ultrasound measurements should only be taken by experienced persons. Only calm animals should be used for taking measurements.

Activity: **e. COLLECTION OF SAMPLES FROM PIGS (E.G. MILK, URINE AND FAECES) (NON-INVASIVE)**

Activity: **Category 2**

Category: To instruct students in the collection of samples from pigs including hair, milk (colostrum), urine and faeces using non-invasive techniques.

Objective: Collection of milk may require the pig to be restrained using a farrowing crate. Only pigs that are accustomed to handling should be used. Milk is usually collected so

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that frozen colostrum can be stored for orphan piglets. A single animal is adequate however, in order to obtain enough samples of colostrum, several animals, in a variety of physiological states, may be required. Artificial colostrum products can be purchased commercially.

Collection of hair samples should only require minimal restraint and care should be taken not to cut the pig's skin when collecting the sample.

Collection of faeces and urine should not require restraint of pigs as samples are readily available. Gloves should be worn, and hands washed after completion of the activity.

Activity:

f. ADMINISTRATION OF SUBCUTANEOUS AND INTRAMUSCULAR INJECTIONS TO PIGS

Category:

Category 4

Objective:

To instruct students in the administration of subcutaneous, intramuscular and intravenous injections to pigs

Schools should establish a relationship with their local Veterinarian prior to giving any treatments including injections for any pigs in their care. This includes the development of an animal management plan highlighting the events and treatments to be undertaken for each calendar year. Hygiene should be maintained when using needles for injections and ensure the needles are sharp and sterile. Vaccinations can be given to pigs by suitably trained staff without the supervision of a Veterinarian. When using medications, drenches or any other animal care chemicals and after consulting with your Veterinarian or Animal industry expert, staff must take care to ensure they:

- read labels carefully and check expiry dates
- determine the weight of animals to calculate the correct dosage / rate
- adhere to withholding periods
- store chemicals/medications/bandaging appropriately
- use protective clothing when required. 

Quick application means that prolonged restraint is unnecessary.

Activity:

g. EAR TAGGING IN PIGS

Category:

Category 4

Objective:

To instruct students in ear marking and tagging of pigs

It is important that individual animals are identified for accurate performance records particularly where pigs are used for meat production enterprises. The National Livestock Identification Scheme (NLIS) Pigs is the system used in Australia for the identification and tracing of pigs for biosecurity, food safety, product integrity and market access purposes. Pigs are tagging with specific tags for this system. (See the PIRSA website link in the Resources section for more information)

As schools generally keep only a small number of pigs, ear tagging, rather than ear notching or tattooing, is the recommended method. Ear tags will need to be placed into the ear with using a gun applicator. Pigs should be tagged after weaning with the animal restrained in a comfortable position that reduces head movement. Application is quick and simple. Ear tag pliers cause minimal stress due to the

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speed of the operation. Only experience operators should undertake this activity using hygienic methods of application. Ear notching should be avoided where possible and, if performed, should be carried out before piglets are seven days of age.

Activity:

h. TATTOO APPLICATION OF PIGS

Category:

Category 4

Objective:

To instruct students in the practice of tattoo application and microchip implantation in pigs.

Where it is necessary to mark pigs for permanent identification, the ear may be tattooed, tagged, punched, or the body may be tattooed or a microchip implanted. Consideration must be given to the pigs' welfare and the use of pain relief when undertaking these activities in consultation with a local Veterinarian. As schools generally keep only a small number of pigs, ear tagging, rather than ear notching or tattooing, is the recommended method. Only experience operators should undertake any of these activities using hygienic methods of application. Schools are strongly recommended to establish a relationship with a local Veterinarian to prepare an annual calendar of events required for keeping pigs including discussions relating to pain relief and other treatments. Equipment must be in place and ready to use prior to restraining any pigs to reduce stress. Staff and students involved must be capable of handling, capture and restraint before undertaking any of these activities.

Activity:

i. TAIL DOCKING OF PIGLETS

Category:

Category 4

Objective:

To instruct students on the correct procedure for tail docking of piglets

Tail docking is done to reduce tail biting that may occur when pigs are bored. Piglets raised in extensive conditions will generally not require tail docking. When required, tails are docked leaving one third of the tail remaining. This activity should be carried out within the first week, preferably when the piglets are one day old. Consideration must be given to pain relief administration and schools are encouraged to consult their local Veterinarian prior to undertaking this activity. Tail docking should be part of a school's animal management plan developed in consultation with their local Veterinarian and Animal industry representatives outlining the occurrence of such practices each calendar year.

Activity:

j. TOOTH TRIMMING OR REMOVAL IN PIGLETS

Category:

Category 4

Objective:

To demonstrate the correct procedure for teeth trimming in piglets

Teeth trimming is undertaken to reduce the chance of piglets injuring the sow or each other. The sharp teeth cause lacerations on other pigs skin or udder. It is most commonly carried out in intensive piggeries and is not generally required in extensive farming situations. Tooth trimming is considered an invasive activity so careful consideration needs to be given to piglet health and welfare. If tooth trimming is to be done, it should be carried out within three days of birth. Appropriate methods of restraint should be used and only the tips of the teeth should be removed. The gums should not be cut when tooth trimming as this can lead to abscess formation. Instruments and other any other equipment should be

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disinfected between piglets.

Schools are strongly recommended to establish a relationship with a local Veterinarian to prepare an annual calendar of events required for keeping pigs including discussions relating to pain relief and other treatments for activities like tooth trimming.

Activity:

Category:

k. COMMERCIAL ACTIVITIES INVOLVING PIGS

Objective:

Category 4

To demonstrate commercial pig farming to students.

Schools are advised to contact their local Veterinarian and Primary Industries and Regions South Australia (PIRSA) prior to undertaking any commercial pig farming practices. Schools must also ensure they have appropriate facilities, resources, an animal management plan and market access prior to commencing. Individual animal identification requirements as per the National Livestock Identification Scheme Pigs system must be adhered to and movement tracing compliances and movement restrictions for interstate movements apply for pig enterprises as well.

Activity:

Category:

I. CASTRATION OF PIGS

Objective:

Category 5

To demonstrate pig castration to students

Schools are encouraged to develop a strong and ongoing relationship with a local Veterinarian prior to undertaking activities involving pigs. This should include a discussion in relation to caring for pigs undergoing castration including pain management and anaesthesia. If surgical castration is considered necessary in order for school, market and/or consumer requirements to be met, it **must be performed by a Veterinarian unless the pigs are less than 3 weeks old whereby a suitably trained operator can perform castration**. It is recommended that piglets be castrated after two days of age, after they have established their suckling order, and before seven days of age. **Pigs over the age of 21 days undergoing castration must be anaesthetised as per the Animal Welfare Regulations 2012**. Appropriate restraint and post-castration care including monitoring and feeding should also be discussed by schools with their Veterinarian as part of their animal management plan. Surgical castration requires use of a sterile sharp implement such as a knife or surgical scalpel, with the animal adequately restrained. Good post-operative drainage of the surgical wound is essential.

Activity:

Category:

m. NOSE RINGING OF PIGS

Objective:

Category 5

To demonstrate nose ringing of pigs

Nose ringing should be avoided in pigs. However, as a last resort, this procedure may need to be performed to prevent adverse effects to the environment, if pigs are kept on pasture. Schools should discuss nose ringing with their local Veterinarian if they wish to undertake this practice. **Nose ringing should be only undertaken under direct supervision of a Veterinarian or by a Veterinarian familiar with pigs as per the Animal Welfare Regulations 2012**. Nose rings should be placed through the cartilage of the top of the snout or the tissues separating the nostrils.

Provision of adequate substrate or pasture for chewing can provide for exploratory

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Activity: or foraging behaviour and deter pigs from rooting up ground excessively.

Category: s. ARTIFICIAL INSEMINATION OF PIGS

Objective: **Category 5**

To demonstrate artificial insemination practices to students

Activity: Schools should seek to discuss pig breeding enterprises with their local Veterinarian and Animal industry experts prior to undertaking any activities like this. Successful insemination hinges on detecting oestrus in the sow, correctly timing the insemination, using the right technique and correct storage and handling of semen.

Category: t. UNLOADING AND LOADING PIGS INTO TRANSPORTERS

Objective: **Category 3**

To demonstrate loading and unloading of pigs into transporters to students

Considerations must be given to pig behaviour when loading and unloading pigs. See Section B9 Specific requirements for the land transport of pigs in the Land Transport of Livestock Standards and Guidelines and the Animal Welfare Regulations 2012 for more information in relation specific requirements for pig transportation. Pigs need to be transported using an appropriate vehicle. It is very important not to overcrowd pigs when transporting them. Care must be taken to avoid transporting pigs during high temperatures, as they cannot sweat to regulate their body temperature, making them very susceptible to heat stress. Transporting them during hot or humid conditions can be very dangerous to their health.

Transport should occur early in the morning or late in the afternoon and stocking densities should be lowered by 10% if the temperature is above 25°C. Vehicles used for transport of pigs must be constructed from materials that allow thorough cleaning. Floors should have a non-slip surface that does not injure hooves or legs. Pigs have very sensitive skin so transport vehicles must be covered. Prodders must not be used for pigs under 60kg and must be used only as a last resort to protect the safety of a person transporting a pig over that weight. Pigs weighing less than 15kgs must not be lifted or carried by one leg. Schools wishing to transport pigs should review the PIRSA website and discuss potential issues with their local Veterinarian familiar with pigs or Animal Industry expert prior to transporting them.

Resources: **Pigs - Animal Welfare Regulations 2012 - South Australia**
<https://www.legislation.sa.gov.au/LZ/C/R/ANIMAL%20WELFARE%20REGULATIONS%202012/CURRENT/2012.187.AUTH.PDF>

Primary industries Standing Committee Model Code of Practice of Welfare of Animals – Pigs - Third Edition 2008
australianpork.com.au/wp-content/uploads/2017/05/MCOP.pdf

National Livestock Identification Scheme (NLIS) and Pigs - PIRSA
pir.sa.gov.au/biosecurity/animal_health/pigs/nlis

Pigs including body condition scoring
<http://agriculture.vic.gov.au/agriculture/animal-health-and-welfare/animal-welfare/animal-welfare-legislation/livestock-management-legislation-and-regulations/pig-welfare-standards-and-guidelines>

Pig breeds in Australia – Dept. of Primary Industries NSW
https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/872683/Pig-breeds-brochure.pdf

Pig Farming – RSPCA Australia
www.rspca.org.au/campaigns/pig-farming

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Australian Pork Education Toolkit

australianpork.com.au/library-resources/education-toolkit/

Pig farm biosecurity – Farm Biosecurity

www.farmbiosecurity.com.au/industry/pigs/

Biosecurity guidelines for Pig Producers – Agriculture Victoria

agriculture.vic.gov.au/agriculture/livestock/pigs/pig-health-and-welfare/biosecurity-guidelines-for-pig-producers

Best practice gilt management for fertility and longevity 2019 – Australian Pork limited

australianpork.com.au/wp-content/uploads/2019/09/2019-09-Best-Practice-Gilt-Management-for-Fertility-and-Longevity.pdf

Collecting semen from boars

www.daf.qld.gov.au/businesspriorities/agriculture/animals/pigs/genetics/collecting-semen
