
	Flinders University Safe Work Method Statement Guinea Pig- Breeding and Weaning Procedures			
				College of Medicine and Public Health Animal Facility
SWMS Number	RA Number		RA Score	
SWMS- 3.5	RA 3.4		Medium	
Contact Person	SWMS prepared by	AWC Approval Date	Review Date	
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The SOP **Guinea Pig- Breeding and Weaning Procedures** contains the following sections:

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Legislation

- *Australian Code for the Care and Use of Animals for Scientific Purposes 8th Ed.*
- *Animal Welfare Act 1985*
- *Animal Welfare Regulations 2012*
- [Gene Technology Act 2000](#) (the Act)
- [Gene Technology Regulations 2001](#)
- *Work Health and Safety Regulations 2012*

University Policy

- Work Health and Safety Policy 2013
- Responsible Conduct of Research Policy 2016
- NHMRC Guidelines

Local Policy

Use of the College of Medicine and Public Health Animal Facilities by all staff and researchers of the College of Medicine and Public Health, Flinders University, is subject to awareness of, and adherence to the following:

Research Involving Animals:

- The University holds a licence for the use of animals for teaching and research purposes. To satisfy the requirements of the licence, anyone wishing to undertake teaching and research using animals must submit a proposal to the Animal Welfare Committee (via the Animal Ethics Review Sub-Committee. No work with animals may commence until written approval has been received from the Animal Welfare Committee. Standardised application forms for Research and Teaching can be found on the Flinders University website listed below. It is your responsibility to regularly check this site for updates to guidelines, forms etc
http://www.flinders.edu.au/research/researcher-support/ebi/animal-ethics/animal-ethics_home.cfm

- **All staff and students involved in animal research must complete Animal Ethics Online Training (AEOT) and must also regularly attend Animal Researcher Information Session (ARIS).**

Safe Work Method Statement

Refer to Risk assessments, Safe Work method Statements for chemicals, processes and plant equipment where appropriate. All projects must have an accompanying Risk Assessment signed by the Animal Facility Manager

RA 3.0 Guinea Pig- Sexing, Handling and Restraint
SWMS 3.0 Guinea Pig - Sexing, Handling and Restraint
RA 3.5 Guinea Pig- Breeding Colony Maintenance
SWMS 3.5 Guinea Pig - Breeding Colony Maintenance

Personal Protective Equipment Required

- **Gloves – to be worn throughout entire procedure**
- **Gown**
- **Mask**
- **Hair Net**
- **Shoe Covers**
- **Goggles when handling chemicals**

Hazards and Controls

- **Animal bites - training, demonstrate competency, adhere to SWMS.**
- **Animal Scratches - training, demonstrate competency, adhere to SWMS.**
- **Development of Allergies - wear PPE when cleaning pens and cages.**

Before Work Commences

Ensure that you are aware of the locations of the following:

- **Spill Kit**
- **Fire Extinguisher**
- **Eye Wash**
- **Exits**

Risk Assessment and SDS (Safety Data Sheet) - Ensure that you have read and understood for all the substances being used.

Equipment

- **Ensure that you have read and understood the Risk Assessment and Safe Work Method Statement**
- **Obtain training before using any equipment**

General Information

- **All procedures are to be performed by trained competent staff.**
- **Training is available from senior animal house staff or Animal Welfare Officer.**
- **Evidence of training is available in the "Training Needs Analysis"**

Environmental Conditions

Temperature	18 – 24°C
Humidity	40-70%
Photo period	12hr light: 12hr dark
Light intensity	350 lux (max)
Room Ventilation	10-20 air changes/ hr

Stocking Density

Minimum Housing Standards for Guinea Pigs*

		Weight (g)		Min floor area cm ²
		single	>550	
GUINEA PIGS	single	250-550		900
		>550		1000
	group	250- 550		450
		>550		600
	breeding	F + litter		1200
		per F in harems		1000

**Dept. Primary Industries "Code of Practice for the Housing and Care of laboratory Mice, Rats, Guinea Pigs and Rabbits" 2004*



Floor Pen
205 x 142cm



Able Pen
Full pen- 200 x 115cm
Half Pen- 100x115cm, Quarter Pen 50 x 115cm



Battery
75 x 65cm

Cage Type	Area (cm ²)	Breeders females with Litters	Group Housed	
			250-550g	>550g
Floor Pen	29,110	24	50	48
Able Full Pen	23,000	19	40	24
Able Half Pen	11,500	9	20	12
Quarter pen	5,750	4	10	6
Battery	4,875	4	5	3

Breeding Facts

1. Female guinea pigs can be sexually mature as early as 4 weeks old. Gestation is from 59 to 73 days, and average litter size is 1-4, but can be as many as 7 or more.
2. Mating Guinea Pigs is crucial before 6 months of age.
3. Breeding after 8 months of age can be fatal to a guinea pig that has not had a previous litter due to Dystocia. Dystocia is a fusing of the pubic bones that can occur upon adulthood. This may lead to birthing difficulties and death of the mother.
4. Guinea pigs are set up as a harem breeding system (1 Male, with many females and offspring).
5. The Guinea Pig colony is outbred and maintained by the poiley system.

Weaning Guide

1. Guinea Pigs are weaned at >180g (roughly 3 weeks of age).
2. Each week, all pups at foot are weighed to determine which animals need to be weaned.
3. Animals over 180g in weight are separated by sex, and placed in cages in the stock room with their wean date on the cage card.

Time Mating Guinea Pigs

1. Select the female Guinea Pigs that are required to be time mated (they should be between 10 weeks and 6 months).
2. **DO NOT** use any female Guinea Pigs over the age of 6 Months.
3. Administer Ready Serve Oral Progestagen (Altrenogest 2.2mg/ml) orally, diluted 1:1 with corn or canola oil at 0.2ml/kg, to each female Guinea Pig daily for 15 days.
4. Record the administration on the Guinea Pig Time Mating form.
5. On the day following the last administered does, place a proven stud male with the female Guinea Pigs.
6. Leave the male in the pen with the females for 4-5 days, then remove him and place him back in his original pen.
7. Record the date that the male Guinea Pig is in/out of the pen on the Guinea Pig Time Mating form.
8. Ultrasound female Guinea Pigs at appropriate time points to be determined by the AWO to confirm pregnancy.
9. Record number of pregnancies on the Guinea Pig Time Mating form for future reference.

Treatment, Euthanasia, or Deceased Animals

- Guinea Pigs can suffer from a range of illnesses. **If a Guinea Pig is found to be sick:**
 1. Call the Animal Welfare Officer (AWO) immediately.
 2. Weigh the animal and record all information on the animal care forms located in the room.
 3. Provide treatment as recommended by the AWO.
 4. If the severity of the illness requires euthanasia, contact the Animal Welfare Officer for the correct method of euthanasia.
 5. Place the body in a yellow bag, label the bag, and leave it in the cool room. **DO NOT** freeze the carcass so the AWO is able to perform a necropsy. Complete a necropsy request form with all of the appropriate information.
- **On finding a deceased animal:**
 1. Place the body in a yellow bag, label the bag, and leave it in the cool room. **DO NOT** freeze the carcass so the AWO is able to perform a necropsy. Complete a necropsy request form with all of the appropriate information.

2. Contact all the appropriate people.

SWMS Review

This SWMS currently applies to the animals housed in the College of Medicine and Public Health Animal Facility. This SWMS will be reviewed 5 yearly, but also updated more frequently as policies, techniques and animal care requirements change.

Position	Name	Contact Details
Manager Animal Facility	Roxanne Collingwood	8204 4380 roxanne.collingwood@flinders.edu.au
Animal Welfare Officer	Lewis Vaughan	0450 424 143 awo@flinders.edu.au

Useful References

- <http://www.nhmrc.gov.au>
- <http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/home-1>
- <http://www.adelaide.edu.au/ANZCCART/>
- http://www.flinders.edu.au/research/researcher-support/ebi/animal-ethics/animal-ethics_home.cfm

Any questions regarding the above guidelines and any technical advice/ assistance required can be directed to Animal Facility Manager.