
STANDARD OPERATING PROCEDURE

TITLE: Environmental Enrichment / Rabbits / HSACF and WVB
SOP NO.: 430-02
REVISION: 1
EFF. DATE: February 2010
SUPERSEDES: 430-01

APPROVALS

Prepared by (print name): _____ Dept.: _____
Signature: _____ Date: _____

Reviewed by (print name): S. Fussell Dept.: ACVS
Signature: _____ Date: _____

Approved by (print name): _____ Dept.: _____
Signature: _____ Date: _____

1.0 PURPOSE

- 1.1 To outline the various environmental enrichment strategies used to ensure welfare, encourage normal species-specific behaviour, decrease stress to reduce research variables and benefit research results, and provide consistent environments for all animals groups.

2.0 SCOPE

- 2.1 This SOP applies to all rabbits housed at Health Sciences Animal Care Facility (HSACF), West Valley Building (WVB) at Western. It applies to all personnel involved in rabbit studies performed in the above facilities.

3.0 RESPONSIBILITIES

3.1 ANIMAL CARE (AC) STAFF

- 3.1.1 Monitor animal health and welfare daily, ensuring enrichment strategies are being used unless otherwise approved on an Anima Use Protocol (AUP).
- 3.1.2 Inform Veterinary Services (VS) of any observed stereotypic behaviours and implement requested new enrichment strategies to work to alleviate these behaviours. Maintain records in Animal Health Binder.
- 3.1.3 Reference any researcher notes at door, room, or cage level regarding enrichment needs.
- 3.1.4 Provide a stock of clean enrichment devices.
- 3.1.5 Inform manager/lead hand if sufficient supplies are not available.
- 3.1.6 If new enrichment devices are being tested, inform manager/lead hand and Veterinary Services about cage level observations.
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3.2 RESEARCH STAFF

- 3.2.1 All deviations from standard enrichment strategies must be included on an approved AUP.
- 3.2.2 Provide information at room and/or cage level regarding any alterations to the standard enrichment program for your species.
- 3.2.3 Work with ACVS staff to minimize stereotypic behaviours.

3.3 LEAD HAND AND/OR FACILITY MANAGER

- 3.3.1 Pass on any alterations to the standard enrichment programs to full-time and part-time AC staff.
- 3.3.2 Continue to obtain information on new forms of enrichment.
- 3.3.3 Work with veterinary staff to periodically evaluate and review the enrichment program.

4.0 PROCEDURE

4.1 RABBITS

- 4.1.1 Our enrichment strategies for rabbits are designed to promote natural, species-specific behaviours; such as, gnawing and chewing, seeking shelter, encouraging sensory stimulation, and social interactions.
- 4.1.2 Rabbits are housed singly; whether located in upright caging or floor pens.
 - 4.1.2.1 All cages should be oriented to allow the rabbits to see other rabbits housed in the same room.
- 4.1.3 Floor pens, which allow a larger cage area and increased enrichment opportunities, are available upon request.
 - 4.1.3.1 See Animal Care price list for per diem costs.
- 4.1.4 Standard enrichment items in rabbit cages in the facility include:
 - One alfalfa cube
 - A shelter structure- either a large PVC tube, or an overturned, opaque box with ends cut out (only available in floor pens).
 - Litter boxes with pelleted bedding or shavings (only available in floor pens).
 - One toy, rotated on a week schedule, some combination of the following item:
 - Plastic chain with attached plastic tube
 - Stainless steel rattles

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- Jingle Balls
- Dumbbells
- Nylabones, non-nutritive

4.1.5 Toys are rotated weekly to maintain their novelty.

4.1.6 Hay, autoclaved apple branches, and paper towel are other environment enrichment options.

4.1.6.1 These items must be approved by research staff

4.1.7 Stereotypic or stress-related behaviours in rabbits may include (but are not limited to):

4.1.7.1 Fur pulling or chin marking

4.1.7.2 Rapid circling

4.1.7.3 Bar biting or biting hoppers, flooring, or water bottle stoppers

4.1.7.4 Repetitious or obsessive movements, such as:

- constantly playing with cage water source
- digging in corner
- pushing food hoppers and bottles with their head

5.0 HEALTH & SAFETY

5.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

5.1.1 ACVS Staff must wear clean scrubs while performing all animal care duties.

5.1.1.1 Discard scrubs to laundry at the end of each work day.

5.1.2 PPE is not required if you are only observing the animals and not handling them.

5.1.3 Wear gloves when filling water bottles.

5.1.4 Wear gloves and a NIOSH approved mask when handling animals and caging.

5.1.5 Wear gloves, a NIOSH mask, bonnet and safety glasses when dumping dirty bedding.

5.1.6 Report all scratches or incidental to your supervisor.

5.1.7 Report all bites to your supervisor and UWO Workplace Health.

5.2 All ACVS staff will be enrolled and monitored as per the UWO Preventative Health Program for Animal Handlers Policy by UWO Workplace Health.

6.0 REVISION HISTORY

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Revision	Reason(s) for Revision	Initiated by
1	To bring up to current practices	sf

7.0 REFERENCES / ASSOCIATED MATERIALS

- 7.1 Environmental Enrichment Devices:
 - 7.1.1 Nylabone: <http://www.bio-serv.com/newcatalog/eeprod/rodent/nylabone.html>
 - 7.1.2 Jingle Ball: <http://www.bio-serv.com/newcatalog/eeprod/rabbit/jingle.html>
 - 7.1.3 Dumbbells: <http://www.bio-serv.com/newcatalog/eeprod/rabbit/dumbbell.html>
 - 7.1.4 Stainless Steel rattles: <http://www.bio-serv.com/newcatalog/eeprod/rabbit/rattles.html>
- 7.2 [CCAC 3 R's Microsite – Environmental Enrichment](#)
- 7.3 [CCAC Chapter VI - Social and Behavioural Requirements of Experimental Animals](#)
- 7.4 [CCAC – Module 07 Core A – Environmental Enrichment](#)
- 7.5 [Comfortable Quarters for Laboratory Animals](#)
- 7.6 Environmental Enrichment and Refinement for Rodents and Rabbits: An Annotated Bibliography- http://www.awionline.org/www.awionline.org/Lab_animals/biblio/rabrodent.html
- 7.7 CCAC Species-Specific Resources: http://www.ccac.ca/en/alternatives/species-resources_ressources-especes/rabbits_lapins.html
- 7.8 Refining rabbit care: A resource for those working with rabbits in research; RSPCA/UFAW.
- 7.9 Environmental Enrichment for Laboratory Rodents and Rabbits: Requirements of Rodents, Rabbits, and Research; ILAR Journal, 46, pp. 162-170.






8.0 ATTACHMENTS

- 8.1 Appendix A- Example of a rabbit room toy rotation – see below

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Appendix A

RABBIT E.E. PROGRAM: TOY SCHEDULE					
GROUP COLOUR	WEEK #				
	1	2	3	4	5
	A	B	C	D	E
	E	A	B	C	D
	D	E	A	B	C
	C	D	E	A	B
	B	C	D	E	A

*SEE CALENDAR FOR WEEK PLACEMENT

RABBIT TOYS	
A	BALLS
B	BARBELLS
C	TUBE + PLASTIC CHAIN
D	NYLABONE OR METAL CHAIN
E	SMALL TUBE