

1. PURPOSE

The intent of this Standard Operating Procedure (SOP) is to describe an appropriate environmental enrichment program for birds.

2. RESPONSIBILITY

Facility Animal Care Committees (FACC), veterinarians, principal investigators (PIs), animal care staff

3. CONSIDERATIONS

- 3.1. The purpose of environmental enrichment is to provide birds with opportunities to express basic behavior needs, to promote species-typical, non-injurious, behavior and to promote physical and mental health thus enhancing animal welfare. Environmental enrichment should be biologically relevant (i.e.: hiding, socializing, searching) so that it does not lose its enriching value over time. This SOP includes birds in general. It is important to follow species-specific requirements.
- 3.2. The environmental enrichment program must be approved by a veterinarian. This includes enrichment provided within the animal facility, provided as part of an Animal Use Protocol (AUP), or provided in Alternative Locations for Procedures and Housing of Animals (ALPHA) locations.
- 3.3. Deviation or exemption from this environmental enrichment program must be scientifically justified in the AUP and approved by the FACC, or prescribed for medical reasons by a veterinarian.

4. PROCEDURES

4.1. Social Contact:

- 4.1.1. Whenever possible, pair- or group-house birds. In aggressive situations, any means of reducing aggression must have been provided before isolation, e.g., altering the environment, adding food/enrichment, etc.
- 4.1.2. Birds may be singly housed with strong scientific, welfare, or medical justification:
 - 4.1.2.1. Incompatibility
 - 4.1.2.2. Medical reasons
 - 4.1.2.3. Specific protocol approved by the FACC

4.2. Housing System:

- 4.2.1. Animals should be housed with the goal of maximizing species-specific behaviors, minimizing stress-induced behaviors, providing opportunity for social contact and locomotor and exploratory behaviors.
- 4.2.2. House birds preferably in aviary enclosures, with a solid-bottom, with contact bedding or pan liners, and enough horizontal space for flight, unless specifically described in the animal use protocol and approved by the FACC.
- 4.2.3. Perches, dust and water baths, suitable nest sites and nesting material, pecking objects and substrate for foraging must always be provided for species and individuals that will benefit from them unless there is compelling scientific or veterinary justification for withholding such items. Birds should be encouraged to use all three dimensions of their housing for foraging, exercise and social interactions including play, wherever possible.
- 4.2.4. Housing system should meet or exceed the most recent minimal space recommendations established by the Canadian Council on Animal Care (CCAC) and the European Joint Working Group on Refinement.

4.3. Dietary Enrichment:

- 4.3.1. Feed animals to meet current National Research Council (USA) recommendations for bird nutrition.

- 4.3.2. Provide small quantities of fresh vegetables and fruits regularly (2-3 times/week). Fruits and vegetables should be alternated weekly to ensure a wide range of nutrients. Vegetables should be thoroughly rinsed prior to use.
- 4.4. Environmental enrichment devices:
 - 4.4.1. For breeders:
 - 4.4.1.1. Nesting box.
 - 4.4.1.2. Nesting material such as burlap, cotton, and coconut fibers
 - 4.4.2. Examples of enrichment include, but are not limited to, the following: loose paper strands such as EnviroDri, perches in varying thickness and texture, hay, bells/rattles, mirrors, cuttlebone, paper towel/toilet paper rolls, egg cartons ladders and swings.
 - 4.4.3. Water baths (once a week)

5. REFERENCES

- 5.1. Canadian Council on Animal Care: Guide to the Care and Use of Experimental Animals - Volume 2, 1984, [Guideline VI. OTHER AVIAN SPECIES](#).
- 5.2. Fifth report of the BVA/WF/FRAME/RSPCA/UFAW Joint Working Group on Refinement (JWGR), published in Laboratory Animals, 2001, Volume 35, [Supplement 1, Pages 1-181](#).
- 5.3. [LafeberVet](#) online resource for the exotic animal veterinarians.
- 5.4. [Association of Avian Veterinarians](#) (AAV) online education resources.
- 5.5. European Convention for the Protection of Vertebrate Animals used for Experimental and other Scientific Purposes (ETS 123) - [Appendix A, Guidelines for accommodation and care of animals](#), 2006.