



The intent of this standard operating procedure (SOP) is to describe the routine husbandry procedures at Cornell University poultry facilities. This SOP is intended as a reference for all staff that perform routine care of the poultry at these facilities. This SOP is approved by the Cornell Institutional Animal Care and Use Committee (IACUC) and the Cornell Center for Animal Resources and Education (CARE). Any exemption must be approved by the IACUC prior to its application.

CONTENTS

1. Introduction
2. Materials
3. Procedures
4. Safety
5. Contingencies
6. References

1. Introduction

The purpose of this SOP is to describe the basic procedures required for the routine care of poultry.

2. Materials

- Wing tags
- Feed and water
- Enrichment devices: perches, cable ties,, balls, beads, mirrors, forage mat, nest boxes, etc.
- Suspended cages or bedded pens with litter
- Disinfectant
- Commercial poultry cages/boxes

3. Procedures

- a. Observation of animals
 - i. Observe all animals for illness, injury and general health twice daily, including weekends and holidays.
 - ii. Report any abnormalities, injuries or illness to the facility manager
- b. Animal identification methods: identify the birds by applying wing tags.
- c. Records and documentation: refer to CARE SOP 542, Maintaining Clinical Records for Animal Research Models.
- d. Food and water
 - i. Feed animals to meet the current National Research Council recommendations for poultry nutrition.

- ii. Store and deliver feed ingredients and finished feeds in a manner that minimizes contamination or spoilage (e.g. sealed bags off of floors, open bags in covered containers).
 - iii. Offer fresh, clean, potable, uncontaminated water and check water daily for cleanliness. Flush nipple waterers once per week. Sanitize and refill battery chick water trays once per day. Monitor the water quality annually to ensure that it is free of contaminants that could potentially expose animals to chemical or infectious agents. Refer to CARE SOP 543, Water Quality Monitoring in Agricultural Facilities.
 - e. Breeding program
 - i. Breed the poultry naturally.
 - ii. The sex ratio in the breeding pens is approximately one rooster to ten hens. Keep quail in breeding batteries at the ratio of approximately one cock to seven hens.
 - f. Social and environmental enrichment
 - i. Ensure that all animals have visual and physical contact with other animals and with animal care personnel.
 - ii. Provide at least one environmental enrichment device. Some examples include perches, cable ties, mirrors, etc.
 - g. Pest control
 - i. Refer to CARE SOP 538, Vermin Program for a description of the vermin control program in agricultural facilities.
 - ii. Rodent and insect control is performed by a commercial pest control company.
 - iii. Additionally, biologic control (e.g. parasitic wasps) may be used for insect control in outdoor areas .
 - h. Housing
 - i. House chickens in barns with bedded pens or in suspended cages.
 - ii. Space requirements
 - Provide pens and cages that are appropriate for the size and number of birds housed in them.
 - Refer to Table 8-2 (pg. 58) of the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching.
 - i. Cleaning and sanitation of pens and cages
 - i. Suspended cages with paper waste collection: remove soiled paper twice per week.
 - ii. Suspended cages without waste collection: hose floor daily.
 - iii. Bedded pens: remove wet litter and add clean shavings as needed. Remove litter from under the roosts two times per month. Perform complete litter removal once per year.
 - iv. Clean and disinfect facilities by exposure to an appropriate disinfectant, such as a phenol, quaternary ammonium compound, or peroxygens, in between groups of birds.
 - j. Cleaning and sanitation of equipment
 - i. Routinely remove visible biological material from all equipment.
 - ii. Thoroughly clean and sanitize all equipment prior to the addition of a new group of birds.
 - k. Transportation: transport birds in commercial poultry boxes.
 - l. Waste management

- i. Compost manure, soiled papers, litter, and unusable eggs as they are collected at the Cornell Compost Facility off of Stevenson Road.
- ii. Prepare any dead or culled birds for Elmira Hide and Tallow pick-up once per week, or more as needed.
- iii. Place dead birds for the PI to necropsy in a garbage bag in the rendering cooler.

4. Safety

- a. Working with poultry in confined areas can be very loud and aerosolized allergens are present in the environment. Consult the facility manager regarding hearing and breathing protection requirements.
- b. Observe [CARE SOP 707](#) for animal-related injuries.
- c. Observe [CARE SOP 715](#) for personal protective equipment.
- d. Refer to [CARE Zoonoses](#) web page for zoonotic information specific to poultry.

5. Contingencies

- a. Post contact information for emergency assistance in a conspicuous location within the animal facility.
- b. Emergency veterinary care is available at all times, including after working hours and on weekends and holidays, through the Poultry Extension Veterinarians of the College of Veterinary Medicine, or CARE (Pager 1-800-349-2456).

6. References

- a. *Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching*, Federation of Animal Science Societies: Savoy, IL, 1999.
<http://www.fass.org/page.asp?pageID=216>
- b. <http://www.research.cornell.edu/care/documents/SOPs/CARE542.pdf>
- c. National Research Council recommendations for poultry nutrition
<http://www.nap.edu/books/0309048923/html>
- d. <http://www.research.cornell.edu/care/documents/SOPs/CARE543.pdf>
- e. <http://www.research.cornell.edu/care/documents/SOPs/CARE538.pdf>
- f. <http://www.research.cornell.edu/care/documents/SOPs/CARE707.pdf>
- g. <http://www.research.cornell.edu/care/documents/SOPs/CARE715.pdf>
- h. <http://ohioline.osu.edu/vme-fact/0013.html>

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