MONITORING OF HUMIDITY AND TEMPERATURE IN AGRICULTURAL FACILITIES

1. PURPOSE

1.1. The purpose of this Animal Care and Use Procedure (ACUP) is to provide guidelines for monitoring temperature and humidity in agricultural facilities at Cornell University. This ACUP is approved by the Cornell Institutional Animal Care and Use Committee (IACUC). Any deviation must be approved by the IACUC prior to its implementation.

2. SCOPE

2.1. This ACUP is intended for use by all staff with responsibilities for agricultural animal care at Cornell University.

3. INTRODUCTION

3.1. Agricultural animal species are kept in a broad variety of settings; as a result, different approaches are taken to ensure that their needs for temperature and ventilation are maintained. Contact the Center for Animal Resources and Education (CARE) at Cornell University at care@cornell.edu for more information or for assistance.

4. MATERIALS AND EQUIPMENT

4.1. Temperature and humidity logs or monitoring software
4.2. Equipment to monitor temperature and humidity
4.3. Equipment necessary for extreme weather (e.g., fans, heaters)

5. PROCEDURE

5.1. Climate Controlled Facilities

5.1.1. Keep a physical daily log of temperature and humidity in the areas where animals are housed, if not already recorded electronically
5.1.2. Control environmental conditions by setting thermostats to the recommended comfort zones for:
5.1.2.1. The species of animals
5.1.2.2. The age of the animals
5.1.2.3. The physiological status of the animals

5.1.3. Consult the Ag Guide (Guide for the Care and Use of Agricultural Animals in Research and Teaching) for guidance on species-specific temperature and humidity limits.

5.2. **Open Barn and Outdoor Areas**

    **NOTE:** These facilities / areas use natural ventilation. The environment will reflect ambient conditions. Daily logging of temperature and humidity is not required for these facilities/areas.

5.2.1. Animal behavior should be evaluated daily (by trained staff) for signs of discomfort resulting from inappropriate temperature or humidity levels.

5.2.2. Take appropriate action to mitigate the effects of extreme weather conditions such as high or low temperatures, high winds or excessive precipitation (see examples below).

5.3. **Weather**

    **NOTE:** Management personnel are responsible for monitoring weather conditions that may affect animal well-being at their facilities.

5.3.1. Monitor the weather forecast and current conditions daily to anticipate extreme weather conditions.

5.3.2. Take appropriate precautions to minimize the impact that extreme weather may have on animal health and welfare. For example:

    5.3.2.1. Use fans to improve ventilation if temperature and humidity levels become excessive for the animals being housed.
    5.3.2.2. Provide animals with access to a sheltered area to allow for escape from excessive wind, precipitation and/or heat.
    5.3.2.3. Take appropriate measures to ensure adequate feed and water are readily available.
    5.3.2.4. Assure that an emergency generator is available for provision of power to essential systems during power outages.

6. **PERSONNEL SAFETY**

6.1. Medical Emergencies: **CALL 911.**

6.2. When working with animals wear appropriate PPE, observe proper hygiene, and be aware of allergy, zoonosis, and injury risks. Refer to the CARE Occupational Health and Safety webpage for more information.
7. ANIMAL RELATED CONTINGENCIES

7.1. Post contact information for emergency assistance in a conspicuous location within the animal facility.
7.2. For non-emergency veterinary questions and requests for care, email CARE veterinary staff at care@cornell.edu.
7.3. Emergency veterinary care is available at all times including after working hours, weekends, and holidays.

   7.3.1. Biomedical settings: CARE pager (1-800-329-2456).
   7.3.2. Farm animal settings: Ambulatory and Production Medicine Service (607-253-3140).

8. REFERENCES

8.2. CARE Occupational Health and Safety webpage: http://ras.research.cornell.edu/care/OHS.html

9. APPENDIX

9.1. None

10. HISTORY

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