



CARE551.01 Monitoring of Humidity and Temperature in Agricultural Facilities

The intent of this standard operating procedure (SOP) is to provide guidelines for monitoring temperature and humidity in agricultural facilities at Cornell University. This SOP is intended for use by all staff with the responsibilities for agricultural animal care. This procedure 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.

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1. Introduction

Agricultural animal species are kept in a broad variety of settings. As a result, different approaches are taken to ensure that their needs for thermal comfort are maintained.

2. Materials

- Temperature and humidity logs
- Equipment to monitor temperature and humidity
- Equipment necessary for extreme weather (e.g. fans, heaters)

3. Procedures

A. Enclosed Facilities

Note: These facilities have either supplemental heating and controlled ventilation OR air conditioning:

- i. Keep a daily log of temperature and humidity in the areas where animals are housed.
- ii. Control environmental conditions by setting thermostats to the recommended comfort zones for:

- the specific species of animal
 - the age of the animal
 - the physiological status of the animal
- iii. Consult the *Ag Guide* for information on temperature and humidity.

B. Open Barns and Outdoor Areas

Note: These facilities/areas use natural ventilation. The environment will reflect ambient conditions.

- i. Perform a behavioral evaluation of the animals (by trained professional farm staff) to monitor for any signs of discomfort that may be a result of extreme weather conditions.
- ii. 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).

C. Weather Conditions

Note: Farm management personnel are responsible for monitoring the weather conditions that may affect animal well being at their facilities.

- i. Monitor the weather forecast routinely to anticipate extreme weather conditions.
- ii. Take appropriate precautions necessary to minimize the impact that cases of extreme weather may have on animal health and welfare.
For example:
 - Add fans to the barn in conditions of elevated temperature and humidity.
 - Move animals to a sheltered or indoor area
 - Use generators to provide power to fan/heating/water/feed systems during a power outage.

4. **Safety** N/A

5. Contingencies

Contact CARE (pager 1-800-349-2456) for any health issues or emergencies related to temperature/humidity changes.

6. References

Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching. Federation of Animal Science Societies, Savoy, IL. 1999.

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