

Clemson University Institutional Animal Care and Use Committee (IACUC)

Policy Number: 4.4

Policy Title: The Use of Avian Embryos

Section 1: Purpose

The following policy provides guidance on the use of avian embryos in research, teaching, testing, and demonstration.

Section 2: Scope

This policy applies to all avian embryos used by Clemson University personnel.

Section 3: Policy

Regulatory agencies do not define avian embryos as “live animals” and do not require the IACUC to oversee their care and use. However, there is a consensus in the scientific community that avian embryos that are past 50% of their incubation can experience pain. Therefore, the Clemson IACUC has determined that the best practice is to oversee their care and use once past the 50% incubation time point.

Guidelines

- Prior to initiation, studies using embryos greater than 50% of incubation must be associated with an approved animal use protocol (AUP).
 - Methods for the euthanasia of unexpected, premature hatchlings must be addressed and may include decapitation or CO₂ exposure with a secondary method to assure death.
- Avian embryos that have developed past 50% of the incubation period must be euthanized by an acceptable method listed in the AVMA Guidelines for the Euthanasia of Animals.
- If embryos are euthanized by means of CO₂ exposure, the flow rate must be set to 90% for at least 20 minutes. Dry ice is unacceptable as a source of CO₂ for euthanasia.
- Avian embryos that have not reached 50% of the incubation period are assumed to be unable to experience pain. However, these embryos must be euthanized prior to disposal. Hypothermia by placing the eggs in a -20°C freezer for at least 4 hours is recommended.

The following are incubations times for common avian species:

Chicken	21 days	Bobwhite Quail	23 days	Coturnix Quail	18 days
Turkey	28 days	Duck	28 days	Muscovy Ducks	33 days
Goose	29 days	Guinea	26 days	Pigeon	16 days
Ring Neck Pheasant	23 days	Chukar Partridge	22 days	Peafowl	28 days