

Auburn University Risk Management and Safety <b>Standard Operating Procedure</b>	Effective Date: 09/07/2023		SOP Number: AP – 103 - 3
	Supersedes AP-103-2	Superseded: AP-103-1	Page: 1 of 3
<b>Subject: Use of Bromodeoxyuridine in Poultry</b>	Approval: <u>Donna Tucker</u> Risk Management and Safety		

## I. PURPOSE

This document provides standard operating procedures (SOP) for handling bromodeoxyuridine and managing poultry, their bedding, and other objects potentially contaminated with bromodeoxyuridine or its metabolites after the poultry have been dosed with bromodeoxyuridine up to 3 hours prior to euthanasia.

## II. OBJECTIVE

The purpose of the procedure is to prevent or minimize hazards to personnel handling bromodeoxyuridine and poultry or potentially contaminated objects after the animal has been dosed with bromodeoxyuridine.

## III. SCOPE

The guideline applies to the Auburn University poultry farm.

## IV. GENERAL GUIDELINES

**Note:** Bromodeoxyuridine has potential teratogenic and mutagenic properties, use caution while handling the chemical or potentially contaminated bedding and animals. Refer to the Auburn University Fetal Risk Policy at: <https://sites.auburn.edu/admin/universypolicies/Policies/ReproductiveHealthPolicy.pdf>

Review Product Safety Data Sheet (SDS) prior to use of bromodeoxyuridine.

Employees may be exposed to bromodeoxyuridine in the bedding, dust, cages and excretions of animals given the drug. The PI or facility manger will review this SOP with animal care personnel prior to the employees working with bromodeoxyuridine dosed animals or their caging.

### PPE Requirements

Open cuts or irritated skin should be covered with an impervious bandage while working with animals and during animal care.

All personnel should wear appropriate Personal Protective Equipment (PPE). Appropriate PPE consists of:

- Disposable, impervious closed front gown
- Disposable, impervious shoe covers. Closed toe shoes should be worn.
- Disposable hair -cover
- Disposable nitrile gloves. Wash hands with soap and water after removing gloves.
- Safety glasses, goggles, or face shields. These items should be washed with water and detergent, stored in a clean place if reused.

Bromodeoxyuridine solutions should be prepared in a Chemical Fume Hood and drawn into syringes using a closed needleless system to avoid the potential for inhalation of aerosols. The work area should be covered with a disposable, plastic backed liner.

Bromodeoxyuridine will be administered to animals by the PI or those lab personnel designated and trained by the PI to perform the injections. The PI will assign a person to properly restrain the bird while the drug is administered. The work area where animals are injected should be covered with a disposable, plastic backed liner.

Used needles must be disposed of in an approved sharps container immediately after use. Used needles should not be set on the bench, sheared, bent or re-capped.

Animals receiving bromodeoxyuridine must be housed in an animal room designated for use of hazardous drugs or hazardous chemicals with the appropriate signage.

Areas where bromodeoxyuridine is prepared and/or administered must be cleaned and decontaminated with a 10% Bleach solution immediately following each task. Leave the bleach solution in contact with surfaces for 3-5 minutes. After wiping up the bleach solution clean the surface with soap and water.

#### **V. HANDLING DOSED ANIMALS, THEIR CAGES AND BEDDING**

The following procedures should be followed when handling animals, contaminated cages and bedding potentially contaminated with bromodeoxyuridine.

Wear all appropriate PPE (listed above) during handling.

The birds will be held in disposable caging after the bromodeoxyuridine is administered.

Absorbent padding will be used for animal bedding to minimize dust generation.

#### **VI. DISPOSAL PROCEDURES**

No materials contaminated with bromodeoxyuridine are to be placed in regular waste receptacles (this includes bedding and excrement of animals injected with bromodeoxyuridine, disposable towels used for cleaning, PPE of those handling bromodeoxyuridine, bromodeoxyuridine contaminated sharps, and carcasses and tissues of bromodeoxyuridine dosed animals).

Unused bromodeoxyuridine is a hazardous chemical waste and must be submitted as a waste using CHEMATIX and disposed of by RMS.

All needles, lances, scalpels shall be managed as regulated medical waste and stored in a yellow sharps container. Contact Steven Nolen at 703-3859 to request sharps container pickup.

All bromodeoxyuridine exposed carcasses and/ or tissues will be double bagged, placed in containers, and stored in a cooler to slow down decomposition prior to waste pickup. [Schedule carcass waste pickups at https://aim.auburn.edu/aim](https://aim.auburn.edu/aim)

All waste potentially contaminated with bromodeoxyuridine such as PPE, towels, excrement, and disposable cages will be double bagged (goose necked and taped) and placed in a container. Waste pickup can be scheduled by calling Steven Nolen at 703-3859.

#### **VII. SPILL PROCEDURES**

For major spills isolate the area, Call 911, and report the spill to RMS 844-4870. Direct contact with the solution should be avoided.

For minor spills contain the spill and clean up material with a paper towel or absorbent pads from the nearest chemical spill kit. It may be helpful to wet the absorbent material for spills of powder. In addition to the required PPE an additional layer of nitrile gloves or equivalent should be used whenever spills are handled. Once cleanup is done wash the area with a 10% bleach solution and then soap and water.

Waste generated from the spill and its cleanup should be double bagged and handled as contaminated waste. Submit spill cleanup materials as waste through CHEMATIX

**References:**

---

*Office of Environmental, Health, and Safety Management, Indiana University (n.d.)  
Laboratory Safety Guideline Bromodeoxyuridine. Retrieved from  
<http://www.ehs.iu.edu/docs/Bromodeoxyuridine.pdf>*

*Occupational Health and Safety, Monash University (May 2011) Working with  
Bromodeoxyuridine (BRDU) – OHS information sheet. Retrieved from  
<http://www.monash.edu.au/ohs/topics/info-sheets/brdu.html>*

*Risk Management and Safety, Auburn University. (2013) Standard Operating  
Guideline for Hazardous Drugs in Animal Bedding.*