

Sam Houston State University Science Annex

Mus musculus Breeding

SOP #: MM-002

Date adopted : _____

Last revision : _____

Purpose

To explain how mice are to be bred for either research or feed purposes.

Responsibility

It is the responsibility of the Operations Manager of the Science Annex to ensure that all needs for mouse care are provided for while adhering strictly to the procedures outlined in this document.

It is the responsibility of the Principal Investigator to ensure that the Operations Manager is fully aware of any special requirements or treatments. Additionally, it is incumbent upon the Principal Investigator to address any care issues he or she observes with the Operations Manager.

Procedures

When breeding mice, all care procedures outlined in SOP MM-001 (*Mus musculus* Care) are to be adhered to, with the following provisions.

Mice are housed as monogamous pairs, 1:2 (male:female) trios or harems consisting of a single male and multiple females for breeding purposes.

Pregnancy is determined by visual observation or palpation.

Mice engaged in breeding are maintained on a specially formulated diet with a higher protein and fat content, such as Envigo's 2019 Lab Diet.

A daily census sheet is maintained and pups born over the night are recorded, along with their anticipated wean date (typically 19-22 days depending on strain and litter size).

Any flooded or severely soiled cages are cleaned immediately.

Males are typically not left with females that are about to give birth or have recently given birth to avoid post-partum conception. If necessary, males can be transferred to other cages after only a week of breeding access.

Cages are inspected and any obviously pregnant mice are separated into their own cage if necessary.

Feed hoppers are filled to the brim.

All excess or unnecessary mice (as defined in the protocols associated with the colony) are culled in a timely manner and humanely disposed of or euthanized following the specific protocol associated with that colony. Mice raised for feed purposes can be euthanized and frozen for later use.