

SOP #: 311.02Title: SOP - Overcrowding of Mouse and Rat Cages

Approvals:

Attending Veterinarian

Date:

Coordinator LAR

Date:

1. Purpose

1.1 The purpose of this standard operating procedure is to describe the standards and procedures employed by ACF to ensure compliance with the "Guide for Care and Use of Laboratory Animals" and FIU IACUC requirements as it applies to the breeding and overcrowding of rodents; and the steps to be taken when such conditions are observed. This policy is based on a standard cage of 75 in² for mice, mouse breeding cage of 180 in² and 140 in² cage for rats. If larger or smaller cages are needed, please consult ACF for housing requirements.

2. Responsibility

2.1 ACF Personnel

3. Definitions

3.1 ACF - Animal Care Facility

3.2 Monogamous breeding: 1 male and 1 female breeder per cage.

3.3 Trio breeding: 1 male and no more than 2 female breeder per cage.

3.4 Continuous breeding: Breeders kept together after litter is born to allow breeding during the immediate post-partum estrus.

3.5 Non-continuous breeding: Breeding pair separated when female is visibly pregnant.

3.6 Standard weaning: Weaning by 21 days post-partum.

3.7 Extended weaning: Weaning beyond 21 days of age.

3.8 DOB: Date of birth.

4. Guidelines

4.1 The housing of rodents must not exceed a density greater than recommended by the "Guide" Eight Edition, unless approved by the IACUC in the animal study protocol.

4.2 All breeding schemes must be justified and described in the animal study protocol and approved by the IACUC.

4.3 Possible mouse breeding schemes, which must be justified to and approved by the IACUC, are:

4.3.1 Monogamous breeding: 1 male and 1 female breeder per cage..

4.3.2 Monogamous continuous with extended weaning. When weaning beyond 21 days of age is necessary (if pup size is the criteria for weaning), semi-weekly (or more often) pup weight records must be provided to the OLAR upon request. A pup body weight > 10 g is recommended. Criteria, other than weight, for extended weaning will be considered by the IACUC.

4.3.3 Trio breeding. No more than 1 breeding male and 2 breeding females is permitted per cage.

4.4 Overcrowding exists in a mouse cage when:

4.4.1 More than five adult mice or a combination of adults and pups over 21 days of age are present, that exceeds the amount of cage space allowed, unless extended weaning has been approved by IACUC, and the cages have been identified as such.

4.4.2 More than two) litters are found in the cage

4.4.2.1 If approved for continuous breeding, pups must be weaned promptly at 21 days of age to avoid having multiple litters at the same time. Extended weaning beyond 21 days must be approved by the IACUC.

4.4.2.2 Multiple litters for fostering purposes require IACUC approval (for recurring or planned cases) or veterinary approval (for individual cases).

4.5 Overcrowding exists in a RAT cage when:

4.5.1 There is more than one rat in a cage when one of the rats is > 500 grams. Rats weighing > 500 grams must be single housed, except when housed in double cages.

4.6 Investigators are responsible for checking their breeding colonies daily and recording the date of birth (DOB) for new pups.

4.7 When an overcrowded cage is found, the ACF staff will take appropriate action to correct the overcrowding problem according to this policy.

4.7.1 Procedure

4.7.1.1 Animal Care Technician (ACT).

4.7.1.1.1 During AM health checks observe for overcrowding.

4.7.1.1.2 If pups are found, records DOB on the back of the cage card unless PI has provided a separate breeding log attached to the cage card.

4.7.1.1.3 If the animal care technician discovers a litter with no recorded DOB they will estimate the date to the best of their knowledge and record it on the back of the cage card or the PI's indicated area. ACF is not responsible for miscalculated DOB's.

4.7.2 When an overcrowded cage is found

4.7.2.1 The ACT will place a green "Overcrowded Cage" (OC) card on the cage and complete accordingly. The label is placed on the cage (over the cage card so that it is clearly visible).

4.7.2.2 The ACT monitors the OC cards on the rodent boxes for 3 calendar days.

4.7.2.3 If the overcrowding problem has not been corrected by the Investigator's staff by 10 am of the 4th day, the ACT will separate the animals.

4.7.2.4 ACT will only wean pups by gender; which will be placed into separate boxes and at the maximum animal density as described above. ACF is not responsible for mistakenly mixing genders.

4.7.2.5 Food and a water bottle is placed into all weaned pups' cages.

4.7.2.6 ACT creates Cage Cards for each new cage created, as described above and all animals will be designated to the original protocol.

4.7.2.7 A fee of \$5.00 will be charged to the PI per cage separated by the ACF.

4.7.2.8 If a PI receives five billable forced separations within one month, access to the facility for the PI's entire staff will be suspended pending a meeting with the ACF Director to discuss the issue.

4.7.2.8.1 A husbandry check sheet will be required for the research group to keep record of how often they are checking their colonies.

4.7.2.8.2 The IACUC will also be made aware of the situation.

4.7.3 Cages that contain situations that, under the judgment of the Attending Veterinarian or designee, may be detrimental to the health and welfare of the rodents may be separated immediately

4.8 If the overcrowding problem is corrected by the investigator s/he is to:

4.8.1 Separate the animals within the overcrowded cage. If separating the animals involves weaning pups, they will be placed into separate boxes, generally by gender, at the maximum animal density as described above.

4.8.2 Food and a water bottle should be placed into all weaned pups' cages.

4.8.3 Cage Cards are created by the ACF upon request

5. References

5.1 FIU SOP 113.01 Management of Mouse Breeding Colonies

5.2 University of Texas at San Antonio - Overcrowding of Mouse and Rat Cages

6. Revision History

6.1 2014 Annual Review: the document underwent a major revision.