

UNIVERSITY OF TEXAS AT ARLINGTON

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

CAGE DENSITY SOP

I. Responsibilities

- A. Principal Investigator (PI) – the PI is responsible for:
 - 1. Oversight of appropriate colony management, timely weaning of litters and prevention of overcrowded cages;
 - 2. Ensuring a communication mechanism is in place to be able to receive timely communications from husbandry and veterinary staff (e.g. voicemail/email that is routinely checked and/or a number that is routinely attended)
- B. ACF Staff – The ACF Staff is responsible for daily observation of animals for overcrowded cages and a general check of the animals' health and overall condition.
- C. IACUC – The IACUC is responsible for semi-annual inspection of animals in the facility for overcrowded cages.

II. Overcrowding

- A. Mouse cages are considered overcrowded when:
 - 1. A litter of pups has become greater than 21 days old
 - 2. A male and a female have 2 litters
 - 3. Trio breeding with greater than 12 pups in a mouse cage
 - 4. Harem breeding and a litter is present in the cage
- B. Rat cages are overcrowded when:
 - 1. An excessive number of adults in a cage:

Body Weight	Maximum number of rat conventional cages
100-200g (post weaning)	5
200-300g	4
300-400g	3
>400g	2

Over 800 g consult with the Veterinarian
 - 2. 1 litter of pups greater than 21 days
 - 3. A male, a female and 2 litters
 - 4. Trio breeding with more than 1 litter in a cage

III. Separation Procedures

- A. Mouse cage separation procedures
 - 1. When a litter of pups is greater than 21 days old, a male and female have two litters, or trio breeding with greater than 12 pups in a small mouse cage:
 - a. Remove one lactating female and her litter and place them in a separate cage.
 - b. Remove one male and the female who did not just give birth and place them in a separate cage.
 - 2. When harem breeding and a litter is present in the cage, remove one lactating female and her litter and place them in a separate cage.


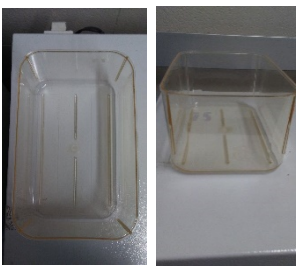

B. Rat cage separation procedures

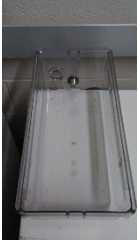
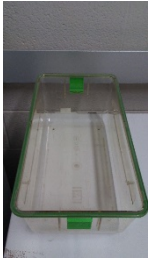
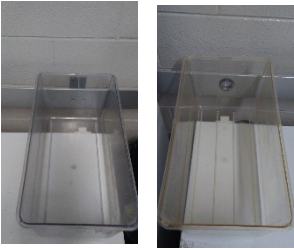
1. When 1 litter of pups is greater than 21 days, wean the pups into new cages (separate by pups and sex).
2. When there is a male, a female and 2 litters, wean the older litter of pups into new cages (separate pups by sex).
3. When trio breeding with more than 1 litter in a cage, remove one lactating female and her litter and place them in a separate rat cage.

IV. Weaning - For colonies where mice are routinely weaned after 21 days of age, the female must be separated from the male prior to giving birth as to avoid overlapping of gestation and overcrowding.

V. Reference - ACF SOP #203: Managing Overcrowded Cages

Cage Density and Number of Adult Animals per Cage Type

Picture	Cage Type	Species	Measurement (cm)	The Guide: Floor Area / Animal (cm ²)	# of Adults per Cage
	Unicage Small Shoe Box	Mouse	25.4 L x 15.24 W = 387 cm ² 12.7 H	387 / 5 mice = 77.4 cm ² / mouse 387 / 4 mice = 96.7 cm ² / mouse	5 mice up to 25 g 4 mice over 25 g
	Ancare 75 Small Shoe Box	Mouse	27.94 L x 16.5 W= 461 cm ² 12.7 H	461 / 5 mice = 92.2 cm ² / mouse 461 / 4 mice = 115.25 cm ² / mouse	5 mice up to 25 g 4 mice over 25 g
	Ancare Small Shoe Box	Mouse	25.4 L x 15.24 W = 387 cm ² 12.7 H	387 / 5 mice = 77.4 cm ² / mouse 387 / 4 mice = 96.7 cm ² / mouse	5 mice up to 25 g 4 mice over 25 g

	Allentown IVC Small Shoe Box	Mouse	31.75 L x 15.24 W= 484 cm ² 12.7 H	484 / 5 mice = 96.8 cm ²	5 mice per cage
	Tecniplast IVC Small Shoe Box	Mouse	30.48 L x 15.24 W= 464 cm ² 12.7 H	464 / 5 mice = 92.8 cm ² / mouse 464 /4 mice = 116 cm ² / mouse	5 mice up to 25 g 4 mice over 25 g
	Static Large Shoe box with and without automatic water	Rat	41.91 L x 20.32 W= 852 cm ² 20.32 H	852 / 2 rats = 426 cm ² rat 852 / 3 rats= 284 cm ² / rat 852 / 4 rats= 213 cm ² / rat 852 / 5 rats= 170 cm ² /rat	100 - 200 g = 5 rats 200 - 300 g = 4 rats 300 - 400 = 3 rats 400 + = 2 rats Over 800 g consult AV
Female Mouse plus Litter	Small Shoe Box (any of the above)	Mouse	Must have 330 cm ² for 1 Adult female with pups	Unicage= 387 Ancare 75= 461 Ancare= 387 Allentown IVC = 484 Tecniplast IVC= 464	Unicage = 1 adult plus liter Ancare 75 = 2 adults plus liter Ancare= 1 adult plus litter Allentown IVC= 2 adults plus litter Tecniplast IVC= 2 adults plus litter
Female Rat plus Litter	Static Large Shoe Box	Rat	Must have 800 cm ² for 1 adult female with pups	41.91 L x 20.32 W = 852 cm ²	1 adult rat plus pups per cage