BREEDING PROCEDURES AND CAGE DENSITY GUIDELINES FOR RATS AND MICE

The National Research Council (NRC) “Guide for the Care and Use of Laboratory Animals” (2011) provides recommended minimum housing space expectations for laboratory rats and mice (p.57). These rodents are social species and should be housed together, unless scientifically justified for individual housing.

The following table depicts the number of animals allowed, by weight, in one standard rodent cage using the floor area limitations stated in the Guide. Oversight for colony management is the responsibility of the research investigators, unless arranged differently as a service by Campus Animal Resources.

<table>
<thead>
<tr>
<th>MAXIMUM RATS PER BOX</th>
<th>Weight Range</th>
<th>Breeding Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cage Size</td>
<td>&lt;100g</td>
<td>100-200g</td>
</tr>
<tr>
<td>Standard rat cage (floor: 190 sq. in.)</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>MAXIMUM MICE PER BOX</td>
<td>Weight Range</td>
<td>Breeding Arrangement</td>
</tr>
<tr>
<td>Cage Size</td>
<td>&lt;10g</td>
<td>up to 25g</td>
</tr>
<tr>
<td>Standard cage (floor: 75 sq. in.)</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

PERMISSIBLE BREEDING CAGE ARRANGEMENTS:

**NOTE:** Breeding cage cards should include the following information:
Investigator, Animal Strain, Birth date, Number of pups in litter, Sex (if possible to ascertain at a young age)

**MICE**

- Monogamous Pairing (1 male + 1 female + litter to weaning)
- Trio breeding (1 male + 2 females)
  - Only 1 litter can be born into the breeding cage
  - Second pregnant female must be removed to a separate cage before delivery of pups
- Harem breeding (1 male + up to 4 females)
  - No litters born into breeding cage
  - Female must be removed to a separate cage before delivery of pups
- Wean pups at approximately 21 days old, up to 28 days old for runted pups
- Pups must be removed and separated by sex by the research group

**ONLY one male should ever be placed in a breeding cage to avoid fighting and injury to cage mates**
Rats

➢ Monogamous pairing (1 male + 1 female + 1 litter to weaning)
➢ Wean pups at 21 days of age
➢ Pups must be removed and separated by sex by the research group

Overcrowded rodent cages and weaning

If the maximum weaning time has been surpassed, and the pups are still in the breeding cage, Campus Animal Resources (CAR) staff will notify the Principal Investigator (PI) via email of an overcrowded cage. PI will then have 24 hours to wean the pups.

CAR will wean/separate pups and bill the PI for technical services, if not weaned within 24 hours after notification.

CAR veterinary staff retains the right to request weaning and separation of animals in rodent cages on a case by case basis as needed.