

Maintenance of Continuous Mouse Breeding Groups (such as trio breeding or harem breeding)

Maintenance of monogamous pair breeding mice (one adult male and one adult female) is simple and allows tracking of their litters and minimizes overcrowding. In general, outbred mice that produce larger litters are best propagated by a pair breeding strategy. However, continuous mouse breeding groups (such as trio breeding, one adult male and two adult female mice, or harem breeding, one male and three or four adult female mice) is commonly proposed to increase breeding efficiency, especially for some strains that are difficult to propagate.

Individuals responsible for the maintenance of these colonies who propose the group breeding scheme must accept full responsibility of the health and welfare of the animals and establish additional animal husbandry criteria to ensure adequacy of cage space for mothers and pups. The increased husbandry practices should include but not limit to ensuring adequate animal observation and frequency, applying established criteria for separation of pregnant females and multiple litters, the suitable cage change frequency, the prompt weaning of mature pups as well as the prompt separation of animals if the number of animals becomes greater than the established criteria.

When considering cage space/animal density policies, it's expected that the Institutional Animal Care and Use Committee or comparable Oversight Body (IACUC/OB) always considers national or regional regulations, policies and guidelines animal behavioral needs, and critically evaluates objective measures of outcome-based performance standards. The proposed cage type should allow all animals to make normal movements and postural adjustments and rest away from soiled areas, provide free access to food and water, and provide sufficient space for mothers with litters to allow the pups to develop to weaning age without detrimental effects to the mothers or the litters. This evaluation should include consideration of strains that have potential large litter sizes, number of adults, the age of female mice, the need for cross-fostering, the growth rate of pups and the average litter size or whether one or more litters are present or possible number of different litters of pups at potential age ranges, the calculation of anticipated number of animals to be produced and to be used or the plan needed for surplus animals, as well as the successful outcomes that support animal well-being.