

UNIVERSITY ANIMAL CARE COMMITTEE

Policy on Rat Housing

Housing must confine the animals securely and safely and ensure their welfare by permitting normal postural and behavioural adjustments. It should also allow rats the opportunity to perform behaviours important to their well-being. Elements must be considered together with an awareness of how the needs of the rats may differ according to characteristics such as strain or stock, physiological state, age, and sex.

In 2020, the Canadian Council on Animal Care (CCAC) released new guidelines for rats, incorporating minimum requirements for cage height and floor space. Below is the Queen's University policy, any deviations from this standard must be approved in an Animal Use Protocol.

Element 1- Caging Type:

Cage Height

The height of cages should accommodate typical postures of rats, including the ability to stretch vertically, which has been shown to be a common and important behaviour for rats. While young rats need to be able to stretch vertically, they must also be able to reach food and water easily.

Cage Floor Area

Cages should provide at least 800 cm² of floor space, and occupancy should be based on the minimum floor space required per animal. Floor area should be sufficient to provide the animals with a comfortable resting area, including shelter, and allow the animals to express normal age-appropriate behaviours.

At Queen's University, there are two types of rat cages, standard single tier, and double decker.

1. Standard Single-tier caging (21.3 cm in height, 904 cm² floor area):
 - Housing density: Young rats (females ≤8 weeks of age and males ≤7 weeks of age, or rats ≤ 200g) can be group housed, up to 2 per cage, in standard single-tier caging
2. Double-decker caging (40.4 cm in height, 1862 cm² floor area):
 - Housing density: Adults will be group housed, up to 3 rats/cage, in double-decker caging

Element 2 - Caging Components:

The provision of cage components should aim to address behaviours important to the rats' welfare. Added items can provide areas to hide, as well as expand the opportunity for activity. Items are selected to meet the behavioural needs and drives of the species and elements must be considered in the context of the individual animal and the research requirements.

At Queen's, we provide the following as our standard cage components:

1. Structures to climb on or around:
 - red tunnels and in double decker caging there is also a platform
2. Substrates for burrowing:
 - both nesting material and bedding material
3. Structures to facilitate hiding, shelter or avoidance of people or other rats:
 - red tunnels
4. Objects to chew on to help prevent overgrowth of teeth:
 - Nyla bones and/or wooden blocks
5. Items to forage:
 - Food treats are mixed into the bedding at time of cage change, such as cheerios, hay, or fruity gems
 - Food treats can also be administered following any study related or health care related treatments

References:

[CCAC guidelines: Rats](#)

Revision History:

Date	New Version
11/24/2022	Policy Created & Approved