

Standard Operating Procedure for Checking and Changing Vent Rack Cages

Purpose

Freimann Life Science Center houses mice on ventilated racks. To ensure the adequate care and monitoring of animals housed in ventilated rack cages, a standardization of checking procedures is necessary.

Process

1. All vent rack cages are to be pulled from the rack twice a week. Room charts will indicate check days for specific racks. On all other days, the animals will be visually checked using a small high powered flashlight. High powered flashlight will be available in the animal rooms.
2. All cages are observed for illness or injury.
3. Some animals are extremely fragile due to genotype, surgery, age or experimental manipulation and require close monitoring following the cage card flag system. Change or remove flags from cages as necessary.
 - a. Red flags (high priority) Cages are pulled daily including weekends and holidays, and require posted lab contact. **Example:** Deceased animals are placed in a refrigerator for necropsy opposed to the freezer for disposal. Additional instruction may apply. Lab contact information sheets contain primary and secondary contacts and are posted in the animal room. Contact sheets are revised as needed and removed when red flags are removed.
 - b. Pink flags (priority animals for technician use only). Cages are pulled daily, lab contact will not be necessary unless animal conditions worsen and a vet card is generated. **Example:** weanlings or dehydrated weanlings.
 - c. Blue flags (added water bottle). Cages are pulled daily. A flag at the top of the cage indicates a bottle is present, a flag at the bottom of the cage indicates the bottle has been removed. Mice or rats on vent racks have 2 choices of water available. Bottles must be changed once a week.
 - d. Purple (pregnant females). Daily cage pulling to check for pups. Change purple tags to yellow tags when pups are born.
 - e. Yellow flags (females with litters) Cages are pulled twice a week.
4. Heavily soiled or flooded cages (25% or more of the cage is wet as seen from the bottom) must be changed when they are observed. The mice tend to urinate at the back of the cage; on days that cages are pulled, the technician must determine if the wetness will become excessive prior to the next pull or change day.
 - a. Troubleshoot problems – internal cage sippers may need repair or replacement. If several cages are found with moisture check gaskets and supply units.
 - b. Change cage top, bonnet and replace food. Excessive moisture will cause mold.
 - c. Wet animals may need medical attention – provide fluids or heating pad as indicated.
5. Cages with food debris do not need to be changed unless the bedding level is above the air inlet, obstructing animal movement or there is moldy food.
 - a. Scoot debris away from the air inlet and sipper.
 - b. Check teeth of grinders.
6. All cages are observed for illness, fighting or abnormalities; generate a vet care card as necessary. Check for dehydration, poor growth, and teeth abnormalities. See SOP for vet care cards.
7. Minimal manipulation to animal cages is desired.
 - a. Observe animals through the top or sides of cage first.
 - b. The cage bonnet is not removed unless the cage must be changed, medical treatment done, dead animal present, food is added, pregnant female segregated, or to record number of pups in new litter.
8. On change day:
 - a. Animals are transferred to a clean cage by the base of the tail using fingers or forceps.
 - b. Food is only filled on left side of the cage top. Move any food from the right to the left side each change day. Fill according to visual diet charts. Food may need to be added prior to next change day.
 - c. Change enrichment as needed.
 - d. For male mice housed together transfer a portion of unsoiled old nesting material to the new cage.