Survey of NH_3 Production in OptiMICE (OM) and double-size M.I.C.E. cages

- We notice a direct impact of room humidity (RH) on generation of NH3
  - In any conditions, ammonia levels are below the unacceptable 22-25 ppm
- We produce 200 BALB/c per rack per week. They have the reputation to cannibalize their first litter to delay their pups production accordingly. We fail to observe this counter-productive behavior.
- We produce 250 C57BL/6 per rack per week. They are well known to develop barbering and ulcerative dermatitis that slow pups production. Here again, we do not have these problems.
- We produce 45 Fisher rats per S4 rack per week. They are normally bred by pair and trio breeding has never been done. But using trio breeding scheme, we are able to almost double our expected pups production.

On-going bedding change occurs at
- every two weeks for breeders
- every three weeks for weanies


Breeding Room:
6 OM set at 7-8 m/s ea. Vent Hose
4 D8 set at 8-9 m/s ea. Vent Hose

Breeding Room:

OM for C57BL/6 and BALB/c breeders

D8 for C57BL/6 and BALB/c weanies and Fischer breeders

C57BL/6 breeders

BALB/c breeders

BALB/c and C57BL/6 weanies

Fischer breeders

Room Conditions: 22 °C, 67% RH, 0 ppm NH_3

Cage Conditions: 22 °C, 67% RH, 5 ppm NH_3

Trio + 8 pups (12 days old); Bedding change 14 days ago

Top: 3-week old weanies cage
Bottom: 2-week old weanies cage

Cage Conditions: 22 °C, 67% RH, 19 ppm NH_3

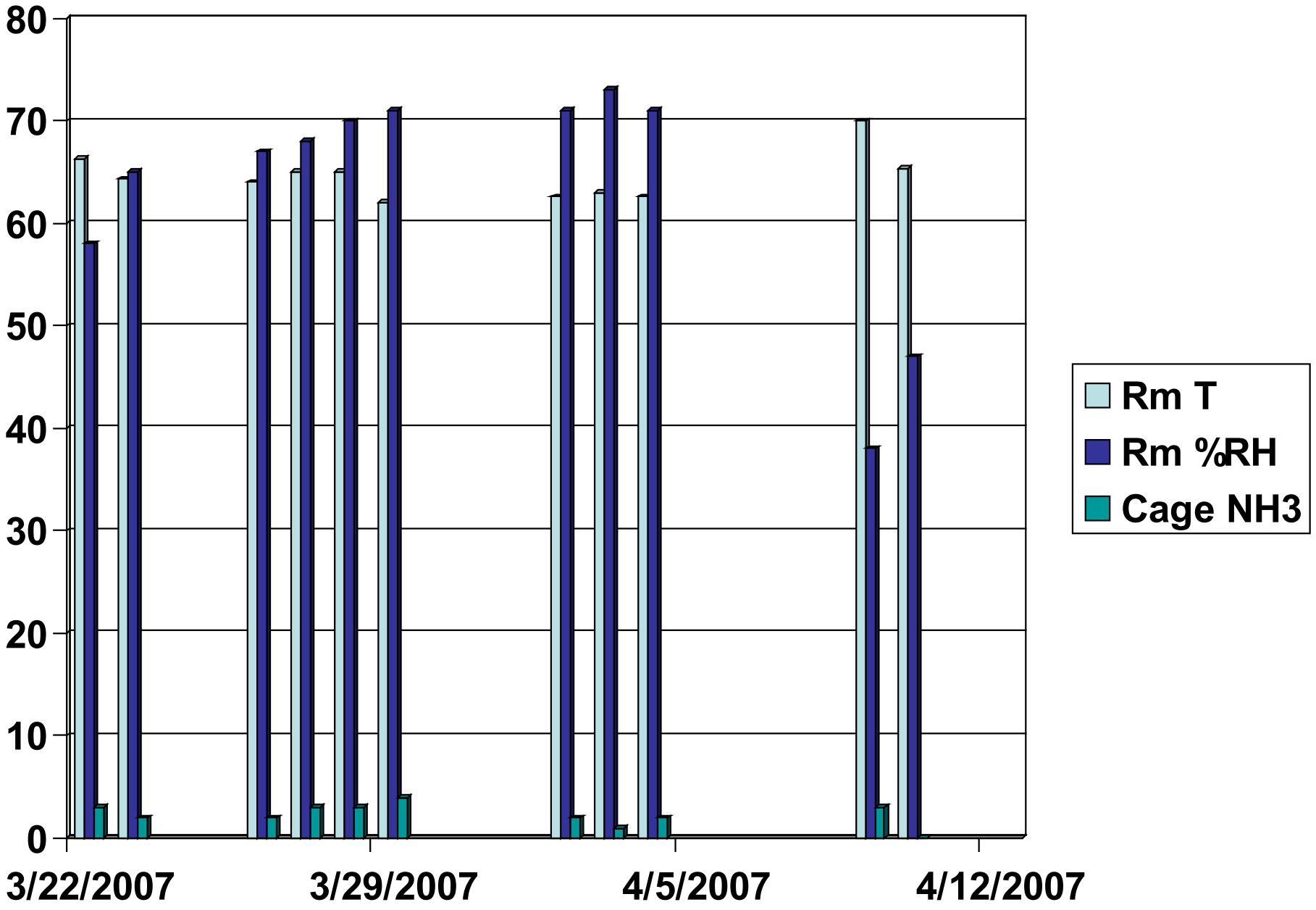
15 weanies (6 weeks old); Bedding change 20 days ago

Room Conditions: 19.5 °C, 29% RH, 0 ppm NH_3

Cage Conditions: 19.5 °C, 29% RH, 0 ppm NH_3
Trio + 12 pups (14 days old); Bedding change 14 days ago

Cage Conditions: 19.5 °C, 29% RH, 18 ppm NH_3
15 weanies (6 weeks old); Bedding change 19 days ago

Cage Conditions: 19.5 °C, 29% RH, 17 ppm NH_3
RAT Trio + 8 pups (14 days old); Bedding change 13 days ago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3/22/2007
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Rm T
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Cage NH3