

## **A basic manual as for breeding rats**

### **Iar: Long Evans**

- Birth
  - We regard 0-week-old as the week when a rat is born. We do not regard 1-week-old as the week when a rat is born.
  
- Weaning at the week of 3-week-old
  - Long Evans rat is weaned at the day of 21-day-old. (We consider the date of birth 0-day-old.)
  - Both male and female rats whose body weights are more than or equal to 30.0 grams and less than 50.0 grams are passed. Rats whose body weights do not fit with those weight range are excluded.
  - The rats are sorted into cages according to body weights. The maximum heads per cage is 20 (106cm<sup>2</sup>/head).
  
- After weaning
  - Depending on the age of rats, the number of animals accommodated will be changed as follows:
    - Between 3 and 5 weeks old: 20 heads per cage,
    - Between 6 and 8 weeks old: 15 heads per cage,
    - Between 9 and 10 weeks old: 10 heads per cage.

## Other information

### Breeding environment

The rats' characteristics depend upon the environmental factors. It is necessary to determine breeding environment.

- Temperature  
Preset: between 20 and 24 degrees Celsius  
Permissible range: between 18 and 28 degrees Celsius
- Humidity  
Preset: between 40 and 60 percentages  
Permissible range: between 30 and 80 percentages
- Ventilation  
Fresh air all the time (HEPA filter)  
Ventilation number of times  
Preset: 15 times per hour  
Permissible range: between 10 and 20 times per hour
- Illumination  
14 hours illumination  
Turn on at 4 am and turn off at 6 pm

### Diet and water

- Diet  
Autoclaved MR-A1 (solid feed for rat, rat breeding), ceaseless feeding (Nosan Corporation)  
As for nutrient composition of MR-A1, please refer to the document on the Oriental Yeast website.
- Drinking water  
For drinking water, adjust the residual chlorine concentration more than 1 ppm just before changing water.
- Animal bedding  
Wood chip (Japan SLC, Inc.)