

Hands-on experiments with planaria

Planaria care guide

How to culture planaria

- Cultures can be maintained in small containers (100 ml) in chlorine-free water at a pH of 7–8, at 10–20°C, in the dark; higher temperatures, up to 25°C, are acceptable, but bacterial and fungal growth and infection risks are higher.
- Once a week, defrost a small fragment of crushed calf liver and add it to the culture (the liver must reach the bottom of the container). After 1 h, remove all the liver from the culture and replace all the water.
- Planaria can be fed once a week for 6 months, but a feeding schedule of twice a week is suggested if planaria are maintained for a longer period of time.

Notes

Containers must be kept without algae and bacteria and cannot smell. The containers should be washed with water, every 15 days, to remove benthos (organisms that live attached to the containers).

Planaria are very sensitive to chemical contamination, so it is important to select clean, food-grade, plastic/glass containers that will not leach contaminants into the water culture.

Planaria can be maintained at high population densities, 50–100 animals (1 cm) per litre of water, and containers must have a cover that allows good air circulation. Low levels of dissolved oxygen are lethal.

How to prepare planaria food

1. After the elimination of fat and blood vessels, put fresh calf liver into a blender.
2. Blend the liver until it forms a homogeneous paste.



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3. Gently push the paste through a sieve.

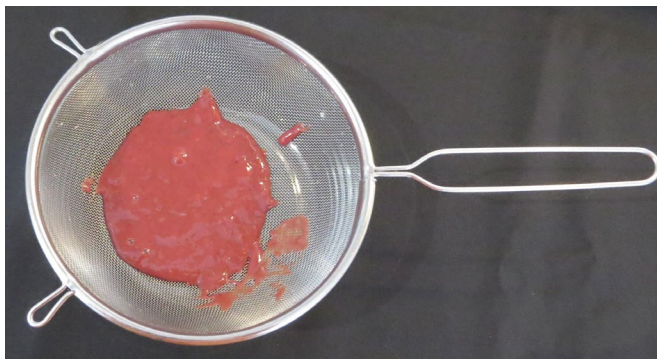


Image courtesy of the authors

4. Collect the paste in a large beaker.
5. Place the liver paste in a plastic bag and immediately freeze it (-20°C).



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