CARE AND FEEDING OF *C. ELEGANS*

PROBLEM:	CAUSE:	ANSWER:
Received source plates and worms do not move when observed through a microscope	Worms could die from extreme temperatures during shipping.	Acquire new plate of worms.
	Worms are dormant.	Feed the worms by adding one BactoBead™ to 1ml of LB or water. Grow the bacteria for one hour at 37°C. Add 200 µl of the culture to each plate.
Stored the source plates at 4°C for a week, and they don't move.	Worms are dormant.	Feed the worms by adding one BactoBead™ to 1ml of LB or water. Grow the bacteria for one hour at 37°C. Add 200 µl of the culture to each plate.
While transferring the worms to a new plate, the agar was flipped in the wrong orientation.	It is difficult to transfer a small piece of agar.	The direction of the agar does not matter, worms will leave the chunk and migrate to their food.
Can not see the worms under the microscope after transfer.	Worms require a short amount of time to migrate to plate.	Wait for 5 - 10 minutes and observe under the microscope again.
	Chunk did not contain enough live worms.	Make new chunk of agar from source plate and repeat the transfer process onto the plates.
The chunked plates containing the worms show a bright white or pink growth.	The plates are contaminated.	Prepare a new plate of worms from a clean source plate.
		Transfer a chunk of agar from a clean region of the plate to a fresh NGM agar plate.
Do not see growth of OP50 on plate after incubation.	NGM is a clear agar and OP50 bacteria forms a limited lawn.	Using a loop gently scrape the top of the agar to check for bacterial growth or smell plate for bacterial odor. If no growth is observed, plate more OP50 bacteria.
Can not count the worms under the microscope.	The microscope is set to higher magnification.	Start with the lower magnification and try to visualize many locations around the plate.
	Too few worms on plate.	Wait three more days before performing the experiment. During this time, be sure to feed the worms every few days by adding one BactoBead™ to 1ml of LB or water. Grow the bacteria for one hour at 37°C. Add 200 µl of the culture to each plate.
Can not see worms in the counting chamber.	Agar from plate has contaminated worms during washing.	Avoid removing agar from the plate by gently pipetting and avoiding contact with the surface.
	Worms are at the bottom of the tube.	Gently flick the tube to resuspend worms prior to pipetting.
Need to dispose of the worms and NGM plates.	Experiment has been completed.	Plates should be soaked in 10% bleach and discarded according to school regulations.
After chunking the worms and left them at RT, the NGM agar is too thin or does not cover the bottom of the plate.	Incorrect volume was poured into the plates.	It is important to have the correct thickness of agar in the plates. Be sure to pour the amount recommended by the protocol.
	The plates were left uncovered and the agar dehydrated.	Keep plates inside of the box. If it is very hot in your classroom, seal plates with parafilm.
Received worms two or more weeks before performing the experiment.	Worms may be dehydrated or starving.	Pour the NGM plates, growth bacteria and chunk the plates into a new plate as soon as possible.