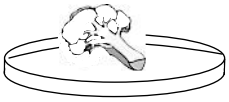
Cauliflower Cloning

You are using aseptic technique in this practical to keep bacteria and fungi from contaminating your cauliflower. Please follow your teacher's guidance carefully.

Safety glasses to be worn at all times.
SDICN is toxic and a bleach that removes colour from clothing. Do not inhale the chlorine vapours.
Wear protective lab coat and gloves when handling bottles containing the sterilant as caps may leak.
Be careful with sharp instruments.

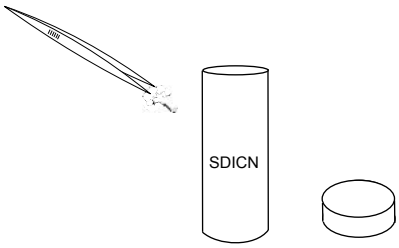
1. Place your forceps in a pot of sterilising solution (labelled SDICN).

2. Clean the bench and wipe the surface with a small amount of 70% ethanol on a paper towel.

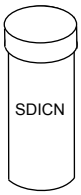


3. Collect a small 'mini-floret' of cauliflower and place in a petri dish.

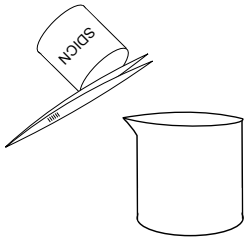
4. Using a scalpel cut the mini-floret lengthways into 'microflorets' - small 3-5mm pieces. These are your 'explants'.



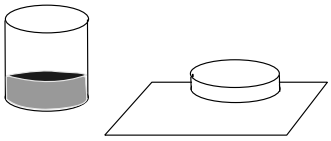
5. Use the forceps to pick up your explants and put them in a jar of SDICN. Put the lid on, and swirl the jar for 5 seconds. Put the forceps back in the pot.



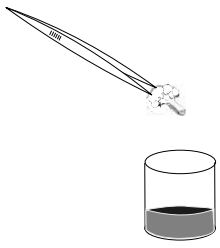
6. Every 2-3 minutes, swirl the jar gently for 5 seconds. Repeat until 15 minutes have passed.



7. Carefully strain the liquid from the jar into a waste beaker. Use the forceps to stop the explants falling out. Put the forceps in the jar.



8. Take the lid off the vial of agar growth medium. Put the lid face down on a clean tile. Try not to lean over your jar on this and the next step.



9. Use the forceps to put an explant into the pot of agar medium. Press the stalk into the medium slightly. Replace the lid.

10. Use a permanent marker to label the vial with your name and the date.

11. Incubate in a warm lab near to a window or a light bank. Examine each culture weekly. Greening and growth of the explants should be visible within 10 days.