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MUCOR REPRODUCTION SET

Demonstrating asexual and sexual reproduction in a fungi.

Mucor will reproduce asexually when only one strain [+ve or -ve] is present. When both mating types are present the Mucor, which is a heterothallis fungus, will reproduce sexually.

Kit contains:

- 1 culture Mucor Hiemalis +ve strain
- 1 culture Mucor Hiemalis -ve strain
- 10 petri dishes of sterile Malt Extract Agar
- Instruction Sheet.

Sterile equipment and aseptic methods associated with microbiology are essential during this experiment.

All used material must be sterilized, before discarding, using an autoclave or by immersing in a 1% solution of appropriate disinfectant overnight.

Method:

1. Remove tape from sterile petri dish.
2. Inoculate one side of the agar plate with Mucor Hiemalis +ve and the other with Mucor Hiemalis -ve, about 2cm apart.
3. Re-seal the petri dish with two strips of tape. Label and date the dishes.
4. Incubate, inverted, at room temperature (around 28°C).
5. In approximately 5 days a line of black zygospores will have been produced where the two mycelia meet. Elsewhere in the culture both strains will be seen to reproducing asexually.

Life History of Mucor Hiemalis.

1. **Contact of 2 branches and separation of 2 cells.**
2. **Fusion of cells**
3. **Ripe Zygosporangium**
4. **Zygosporangium germinating into sporangiferous Hypha**
5. **Mycelium bearing stalked sporangia**