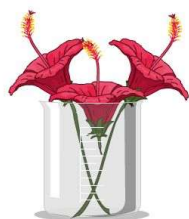


Materials Required



Fresh Mature Flower



10 mg Boric Acid



Distilled Water



Glass slide



30 mg Magnesium Sulphate



Glass Rod



20 mg Potassium Nitrate



Dropper



10 gm Sucrose



Compound Microscope

Real Lab Procedure

- Prepare the pollen germination medium by dissolving 10 grams sucrose, 10 milligrams boric acid, 30 milligrams magnesium sulphate and 20 milligrams potassium nitrate in 100ml of distilled water.
- Using a glass rod, stir the solution to mix it well.
- Using a dropper, take some nutrient solution and put two drops on a clean glass slide.
- Take a mature flower and dust a few pollen grains from its stamen on to the drop on the slide.
- After 5 minutes, place the glass slide on the stage of the compound microscope.
- Observe the slide through the microscope regularly for about half an hour.

Simulator Procedure (as performed through the Online Labs)

- Click and drag the dropper towards the beaker containing germination medium to take the medium.

- Drag the dropper towards the glass slide to pour a few drops germination medium into the glass slide.
- Drag the flower towards the glass slide to dust the pollen grains.
- Drag and place the glass slide onto the stage of the compound microscope.
- Click on the eyepiece of the compound microscope to view the pollen germination.
- You can redo the experiment by clicking on the 'Reset' button.

Observations

- The pollen grain is uninucleate (has one nucleus) in the beginning. At the time of liberation, it becomes 2 celled, with a small generative cell and a vegetative cell.
- In the nutrient medium, the pollen grain germinates. The tube cell enlarges and comes out of the pollen grain through one of the germ pores to form a pollen tube. The tube nucleus descends to the tip of the pollen tube. The generative cell also passes into it. It soon divides into two male gametes.