

# **PRACTICE-5 TO STUDY ABOUT DISEASES OF MUSTARD**

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# Identification of Mustard Disease in field Condition



**White rust of Mustard**  
**Causal organism: *Albugo candida***



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**Alternaria Blight of Mustard**  
**Causal organism: *Alternaria brassicae***



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# Procedure of slide preparation

- Place a drop of fluid(Cotton blue or Lactophenol) in the center of the **slide**.
- Position sample(Thickness of 5mm) on liquid, using tweezers.
- At an angle, place one side of the cover slip against the **slide** making contact with outer edge of the liquid drop.
- Lower the cover slowly, avoiding air bubbles.
- Remove excess water with the paper towel.



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# Identify the conidia



**Conidia of *Alternaria brassicicola***



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# Identify characteristic of pathogen

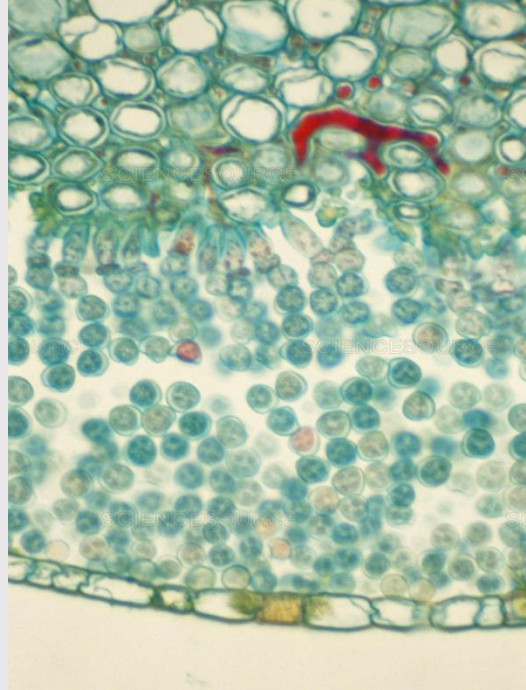
Conidia are the asexual spores formed.

They are formed in chains or solitary, typically ovoid to obclavate, often beaked, pale brown to brown, multi-celled and muriform.



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# Identify the conidia



**Spore of *Albugo candida***



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# Identify characteristic of pathogen

- Mycelium of fungus is intercellular forming knob like haustoria in the host cells
- Hyphae forms beneath the epidermis and it gives rise to the sporangial beds or sori
  - Sporangiohores arise from the sori are free from each other laterally and are very thick towards the base
  - Sporangia are formed in basipetal succession in chains are hyaline, and spherical and produces zoospores