

Saprophytic Fungi

(Air Contaminant Fungi)

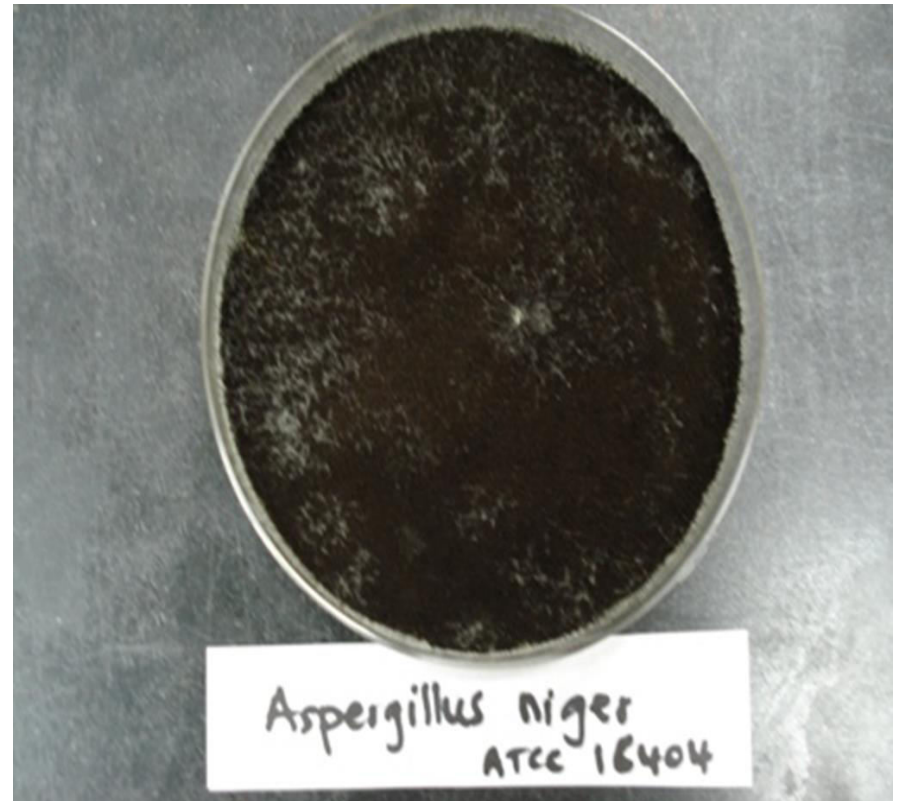
Saprophytic Fungi

- Saprophytic fungi feed on dead organic matter
e.g: plant and animal remains
- Rapid growth (within 3 days).

Aspergillus niger

Colony morphology:

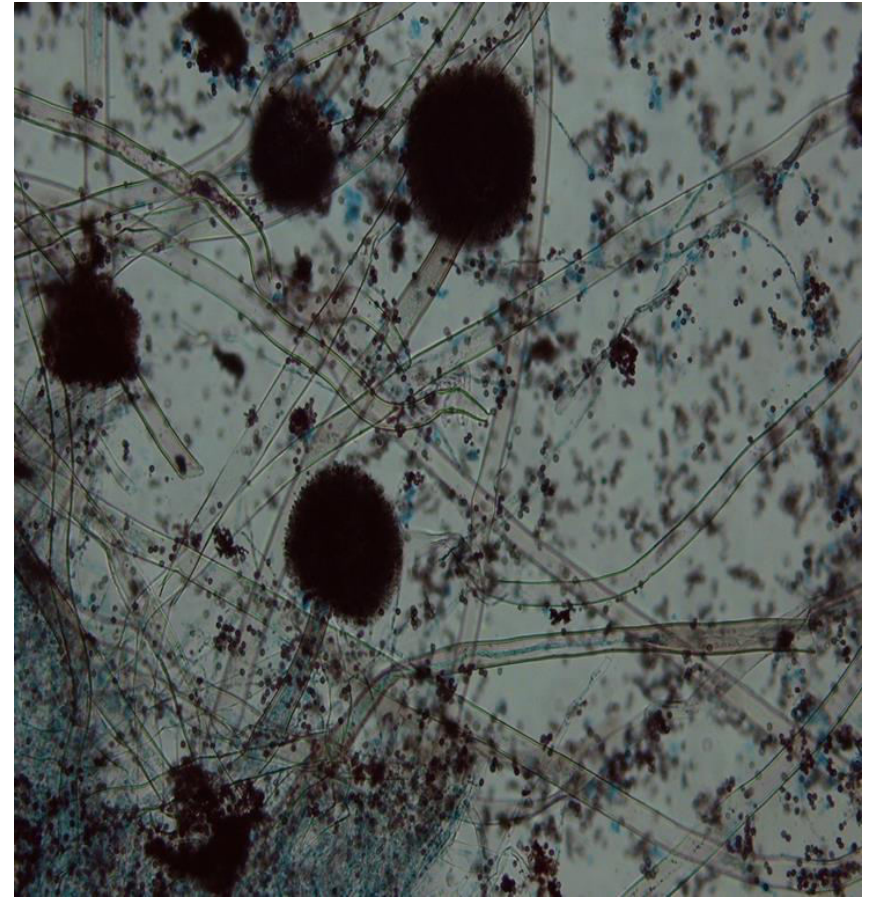
Colony is black, powdery

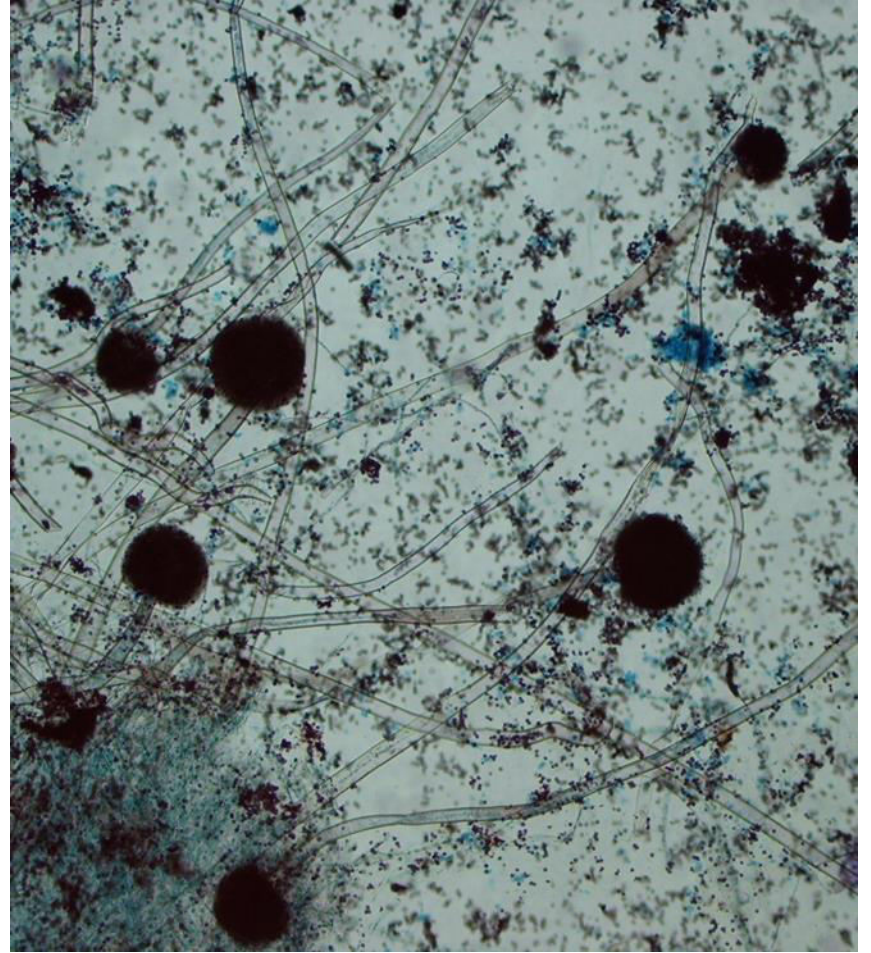
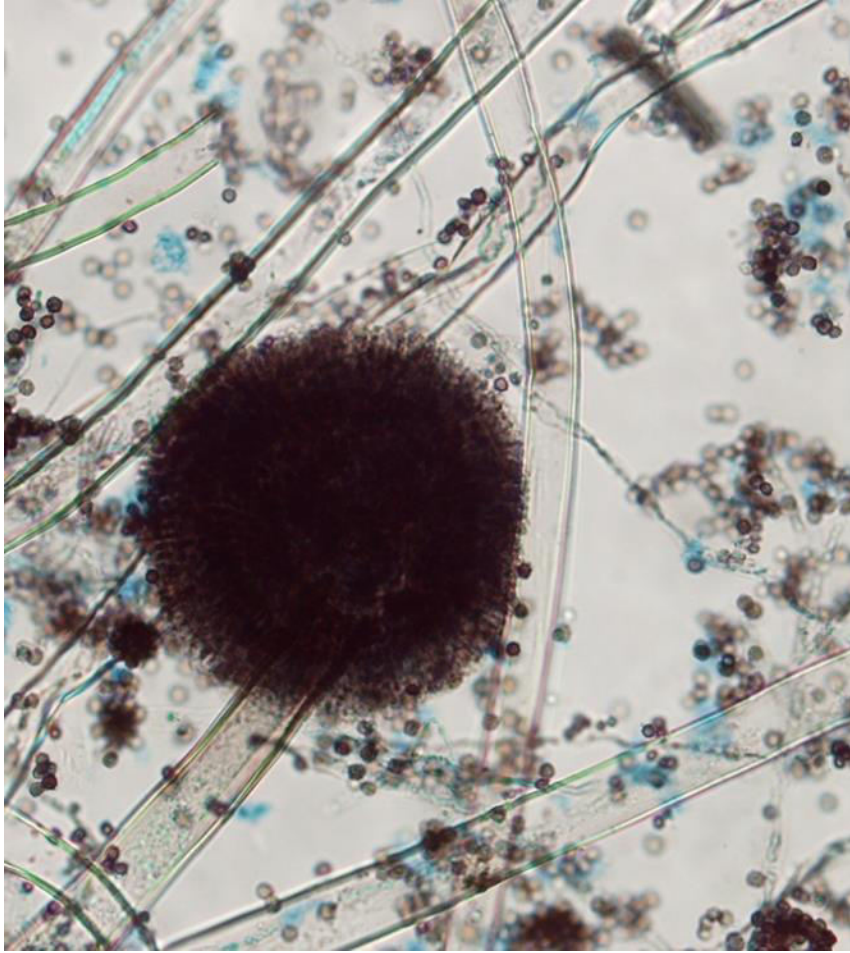


Aspergillus niger

Microscopic morphology:

- Septate hyphae.
- Conidiophores are long, thick, hyaline or brownish .
- Spherical vesicles which covered by the phialids (Biseriate).
- Conidia are round, black in color

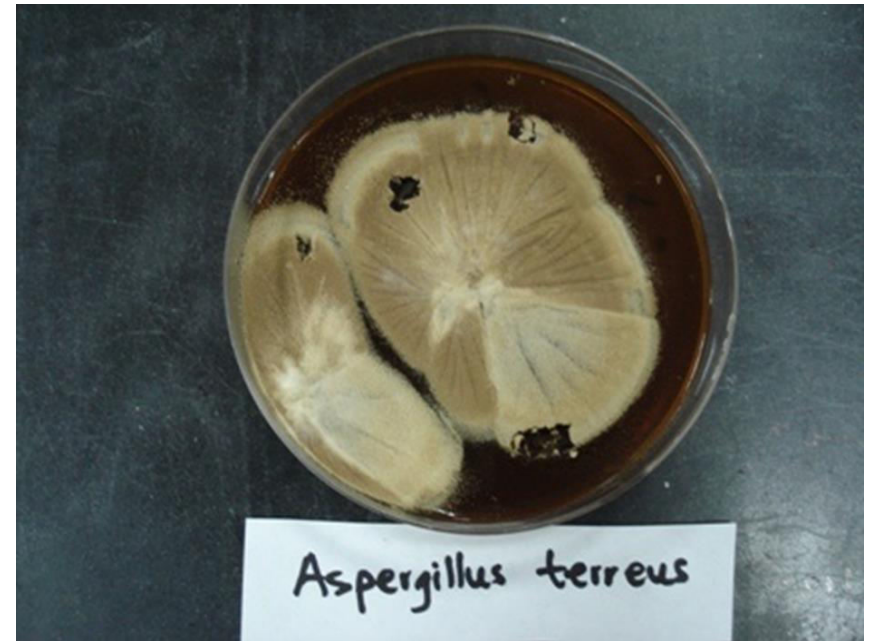




Aspergillus terreus

Colony morphology:

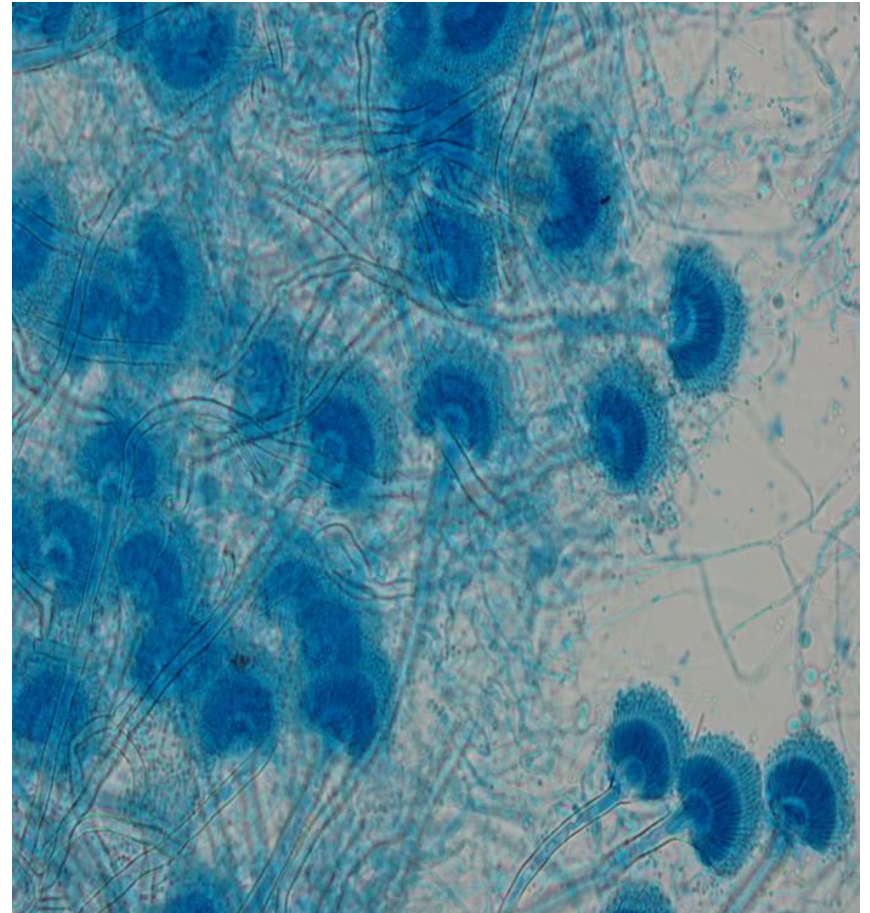
colony is velvety, brown or cinnamon in color

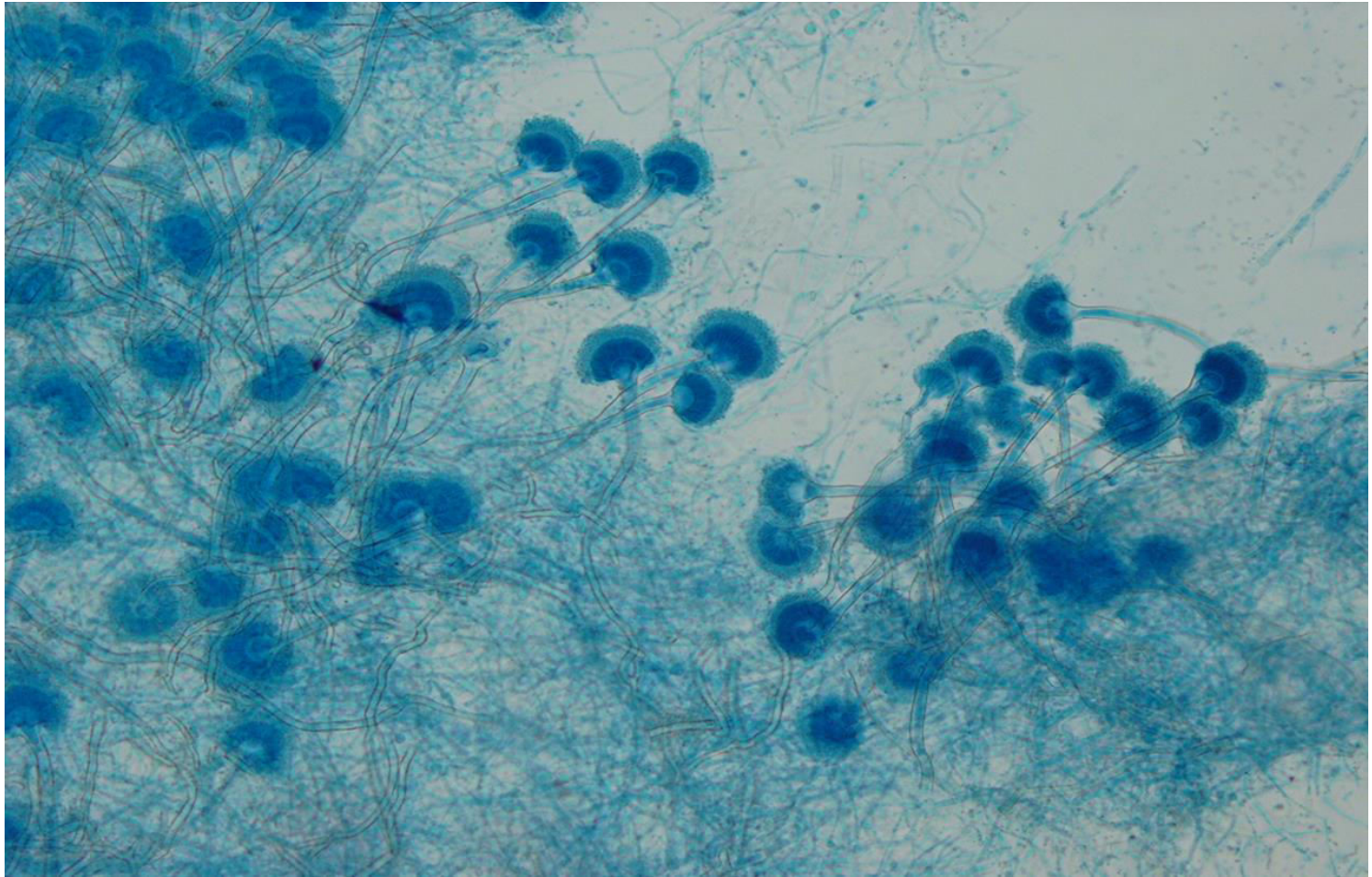


Aspergillus terreus

Microscopic morphology:

- Septate hyphae.
- Conidiophores are smooth and hyaline.
- Vesicles dome-shaped.
- Phialides biseriate & compactly columnar.
- Conidia are round, hyaline.

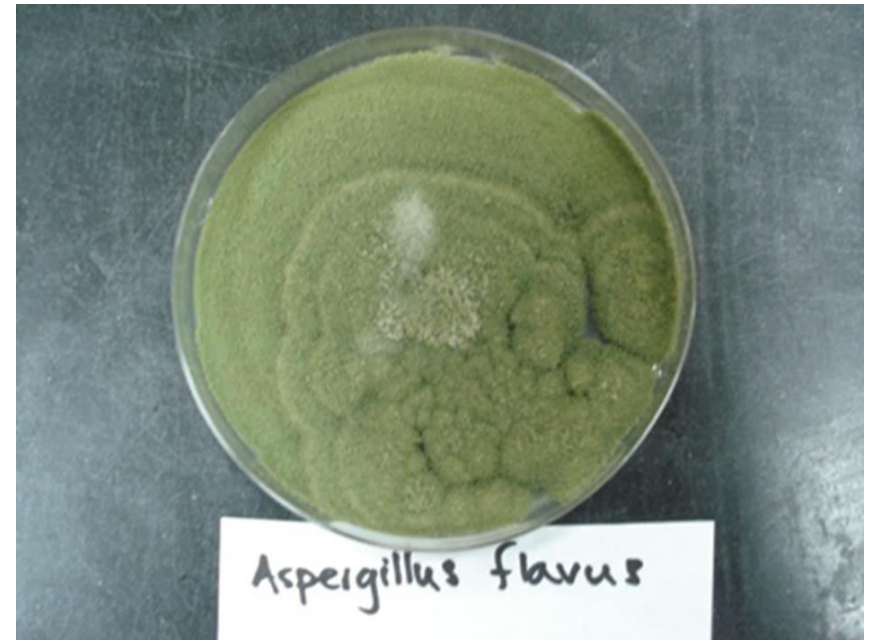




Aspergillus flavus

Colony morphology:

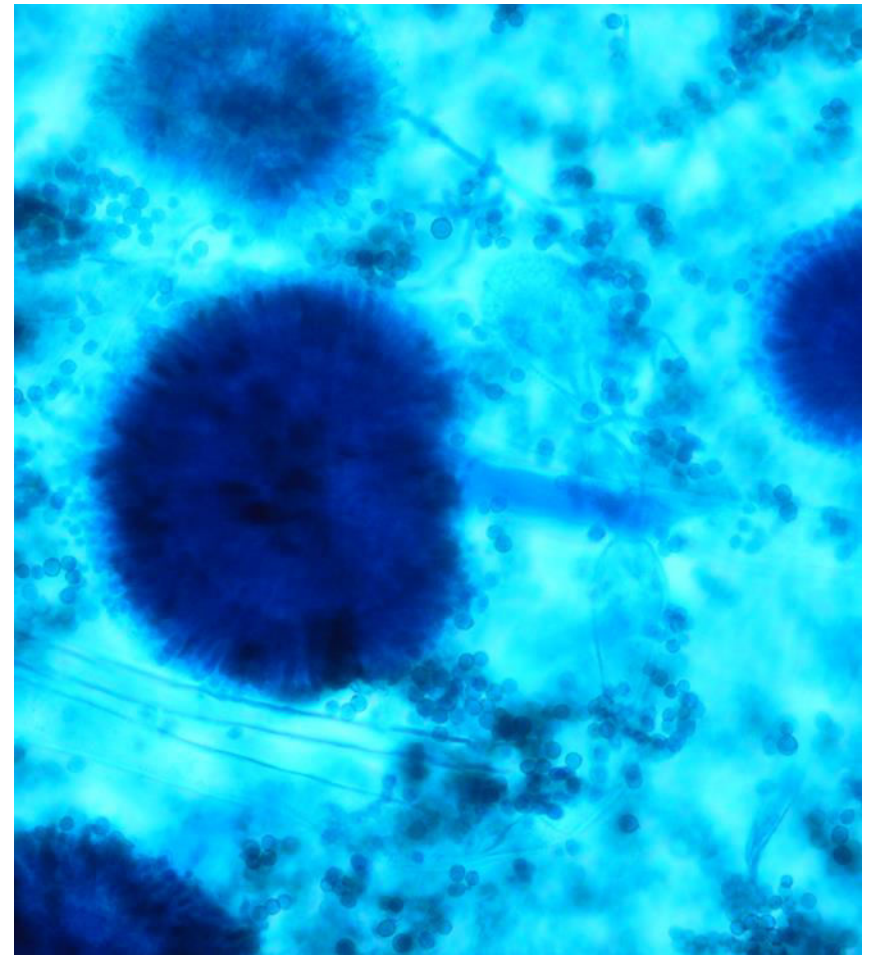
Colony is yellow to yellow green and velvety



Aspergillus flavus

Microscopic morphology:

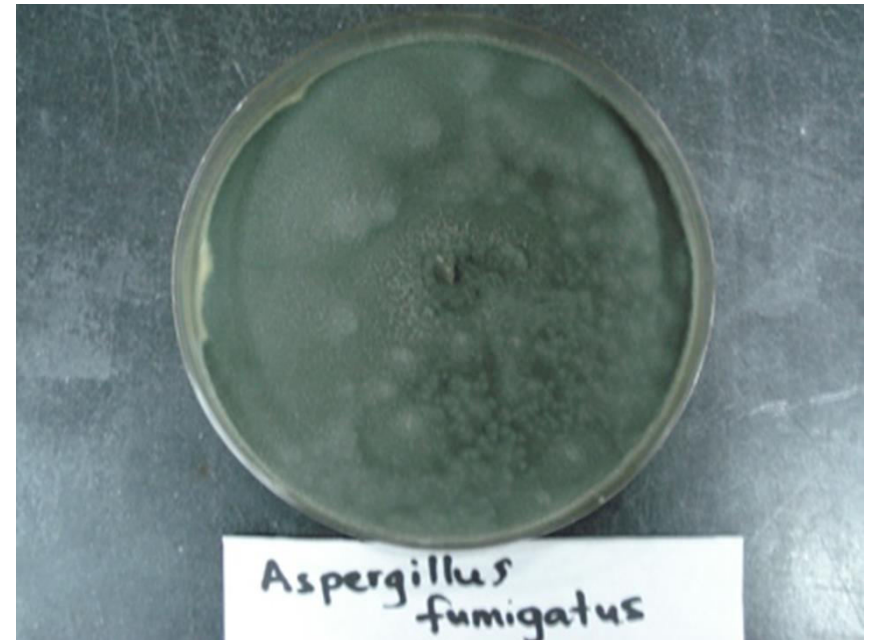
- Septate hyphae
- Conidiophores hyaline , thick wall .
- Spherical vesicles.
- phialides cover $\frac{3}{4}$ of the vesicles, Uni-seriate or biseriate



Aspergillus fumigatus

Colony morphology:

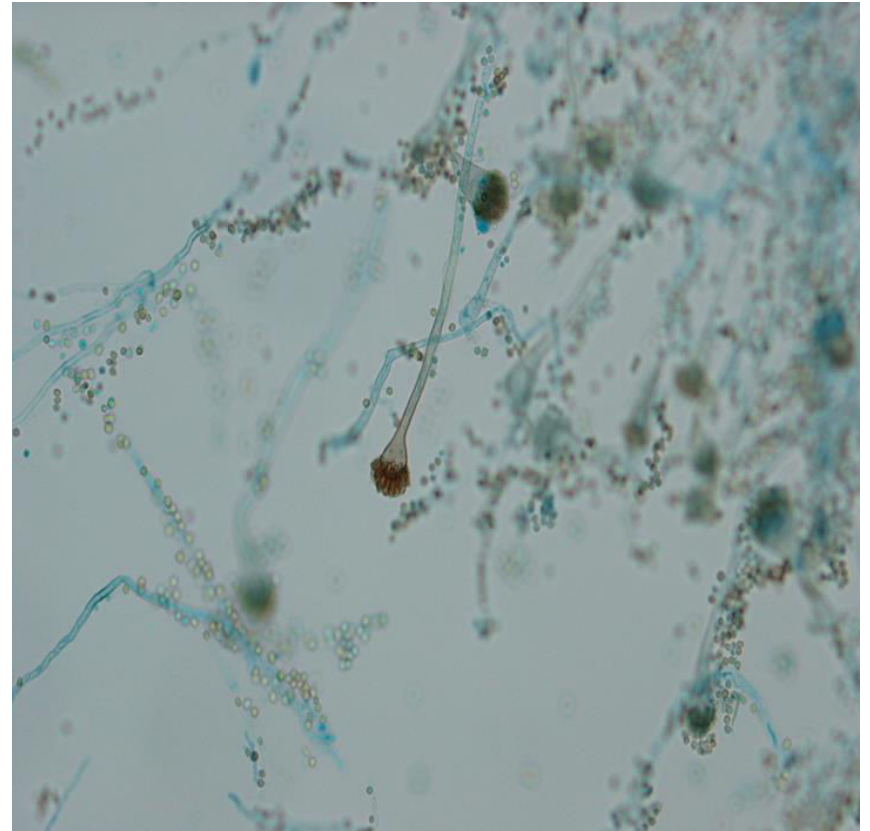
Colony is green or green gray, velvety or powdery.

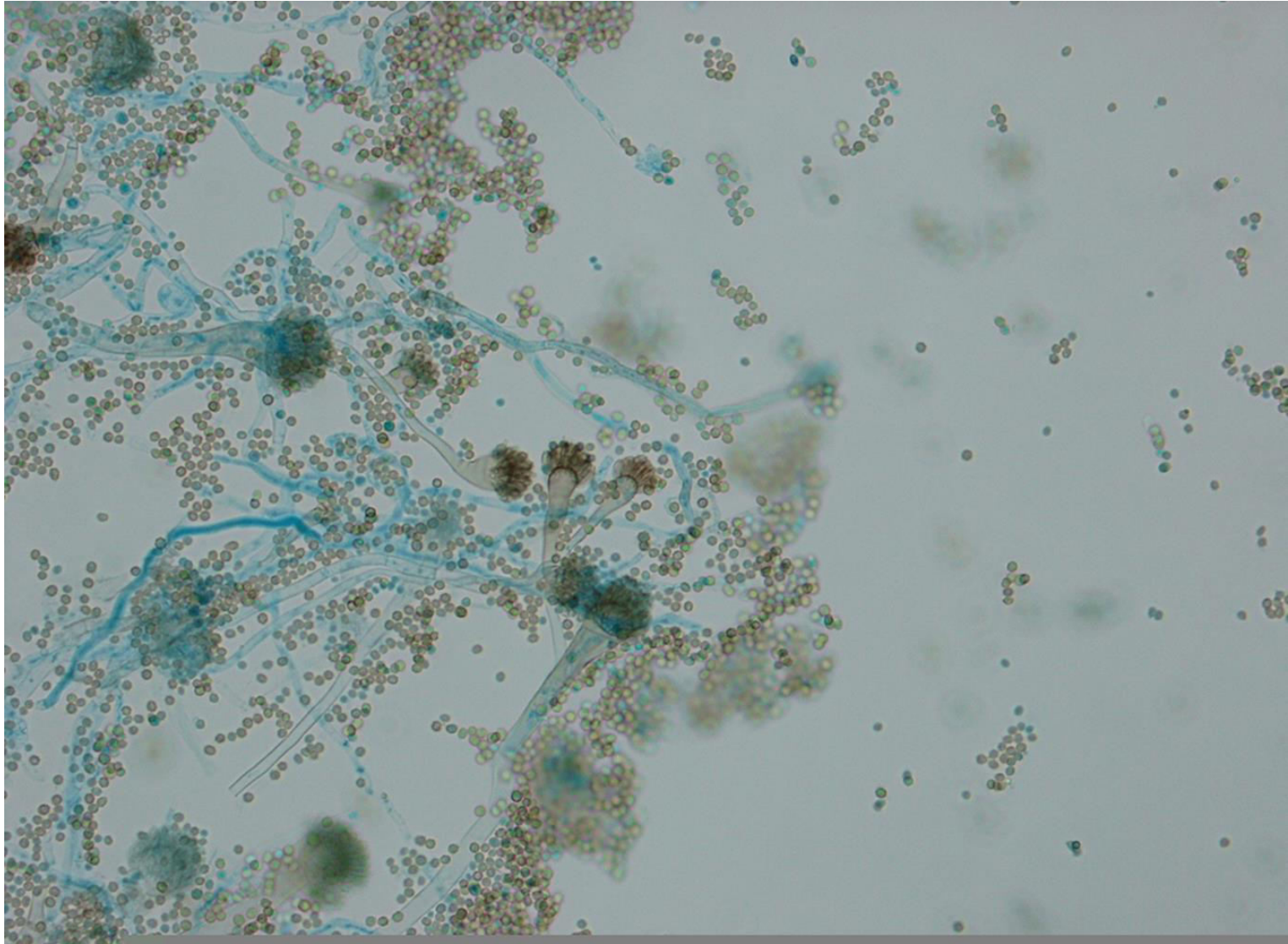


Aspergillus fumigatus

Microscopic morphology:

- Septate hyphae
- Conidiophores are smooth, short and upper part green.
- Vesicles flask in shape.
- Phialide on the upper ½ of the vesicles
- Round conidia





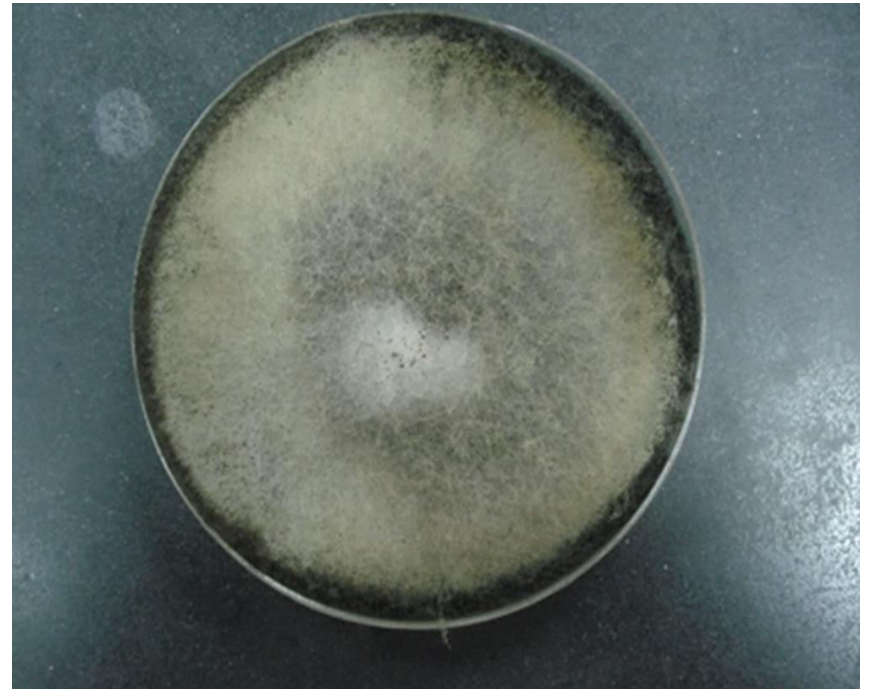
Aspergillosis

- It is infection caused by any species of *Aspergillus*.
- It is opportunistic infection

Rhizopus sp.

Colony morphology:

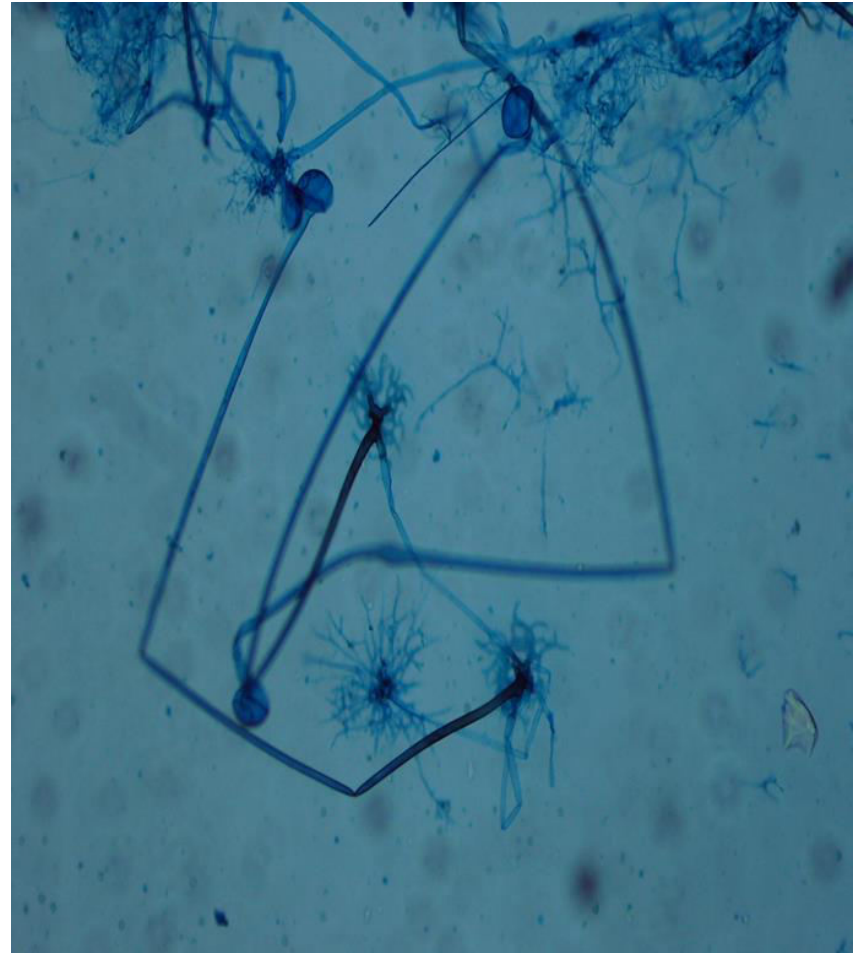
colonies are cottony and push up against under the lid of the Petridish



Rhizopus sp.

Microscopic morphology:

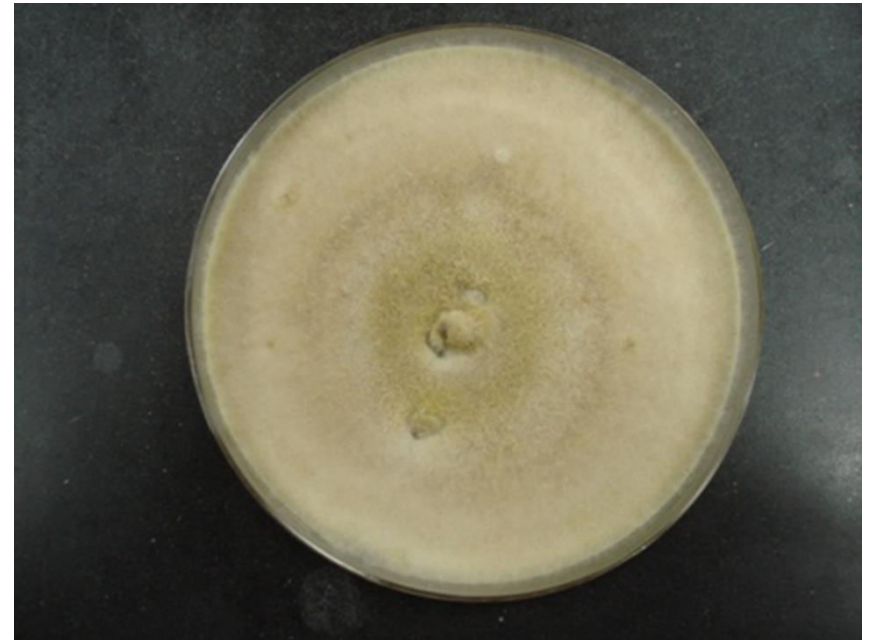
- Non-septate hyphae.
- Sporangiophores are long and terminate with a dark, round sporangium containing many oval spores.
- sporangia form a sac like structure.
- Rhizoid (root-like structure)



Fusarium sp.

Colony morphology:

Colony is white and cottony but quickly develops to a pink or violet color.



Fusarium sp.

Microscopic morphology:

- Septate hyphae .
- Long or short simple conidiophore.
- Macro-conidia are cylindrical , multi celled and sickle shaped



Alternaria sp.

Colony morphology:

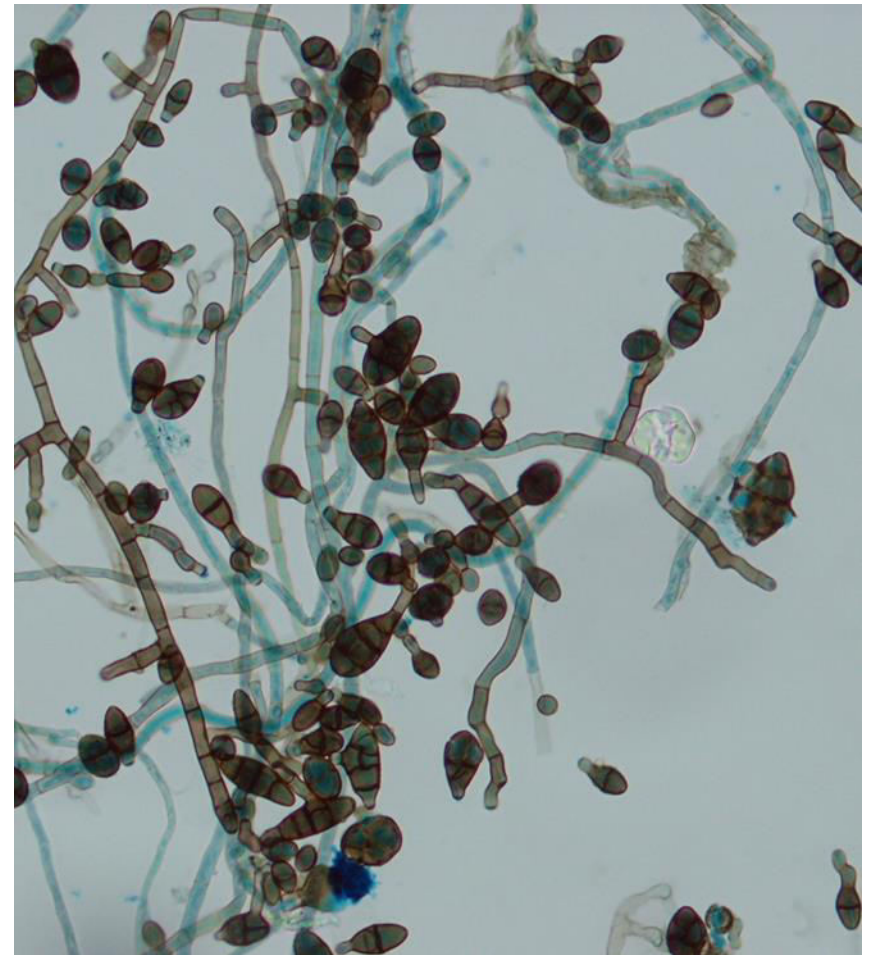
colony gray-brown or
green to black



Alternaria sp.

Microscopic morphology:

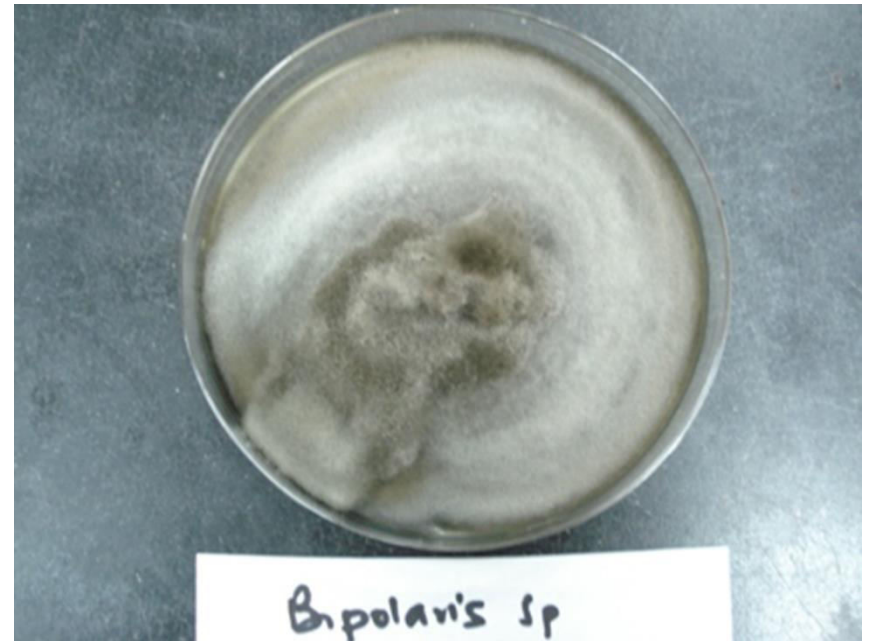
- Septate hyphae.
- Conidiophore septate and vary in length.
- Macro-conidia are multicelled with longitudinal and transverse septations, golden brown in color and are found singly or in chains



Bipolaris Sp.

Colony morphology:

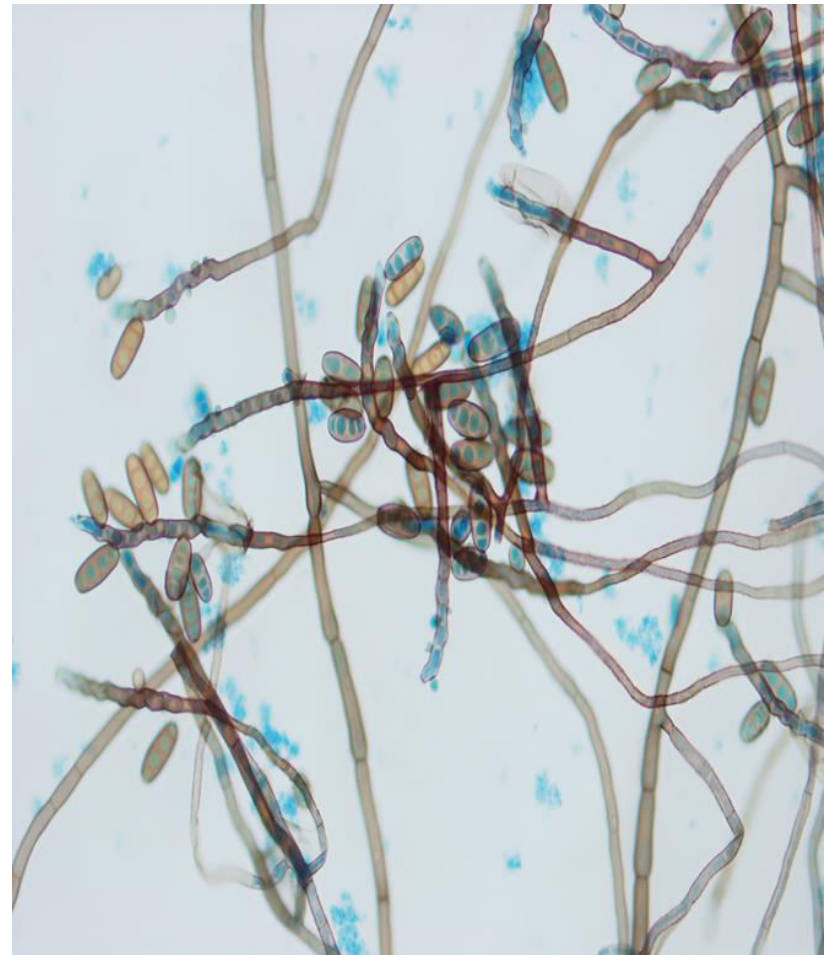
colonies are brownish in color



Bipolaris Sp.

Microscopic morphology:

- Septate hyphae.
- Conidiophore septate and vary in length.
- Macro-conidia are brown smooth, cylindrical, septa transverse 4 or more.



Curvularia sp

Colony morphology:

wooly colonies , dark in color



Curvularia sp

Microscopic morphology:

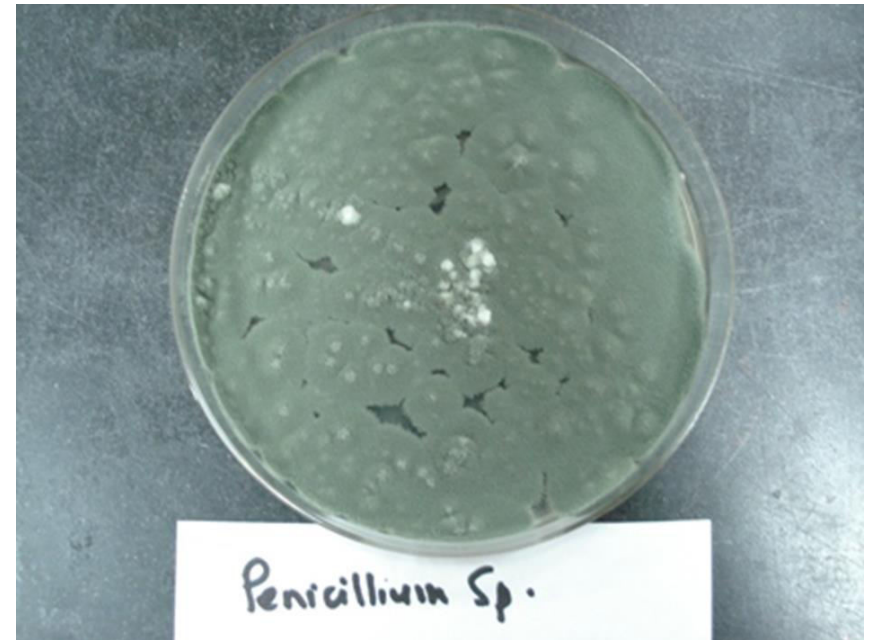
- Septate hyphae.
- Conidiophores are simple or branched.
- Macro-conidia straight or curved, pale brown color, multi-septate.



Penicillium sp.

Colony morphology:

colony green, and velvety to powdery



Penicillium sp.

Microscopic morphology:

- Septate hyphae with branched or unbranched conidiophores.
- phialides are flask shaped.
- Conidia have brush or finger like .

