

The Fungi Kingdom

Mycology - the study of fungi
fungi - singular
fungus - plural

4 Main Characteristics of Fungi

1) Fungi are eukaryotic

- they have a nuclei & mitochondria

2) They are heterotrophs

- they depend on other organisms for food

3) They are multicellular

4) They cannot move on their own

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3 Reasons Fungi Are Different From Plants

- 1) Fungi lack chlorophyll
- 2) Fungi do not make their own food through photosynthesis
- 3) They never reproduce by seeds

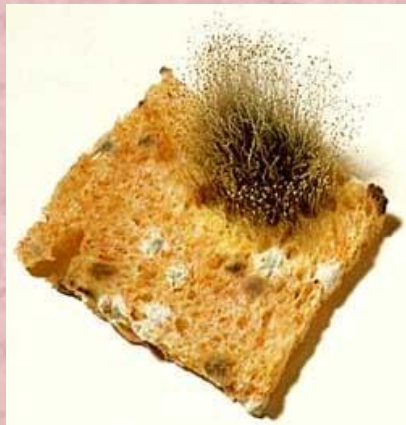
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Main Types of Fungi:

1. Common molds

- Eg: Bread Mold, Peronospora

- Bread mold produces spores that stick up above the bread



Spraying with blue vitriol



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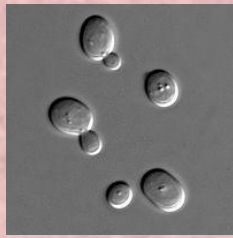
Types of Fungi

2. Sac Fungi - produce spores in sac-like structures



Eg: yeasts, cup fungi, powdery mildews, Penicillium



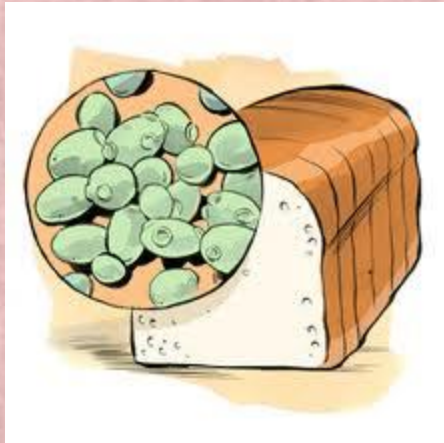


Unicellular,
reproduces by budding

Sac fungi



Ergot



Morels

Athlete's Foot

Athlete's foot is marked by red, itchy patches and white flaking skin.



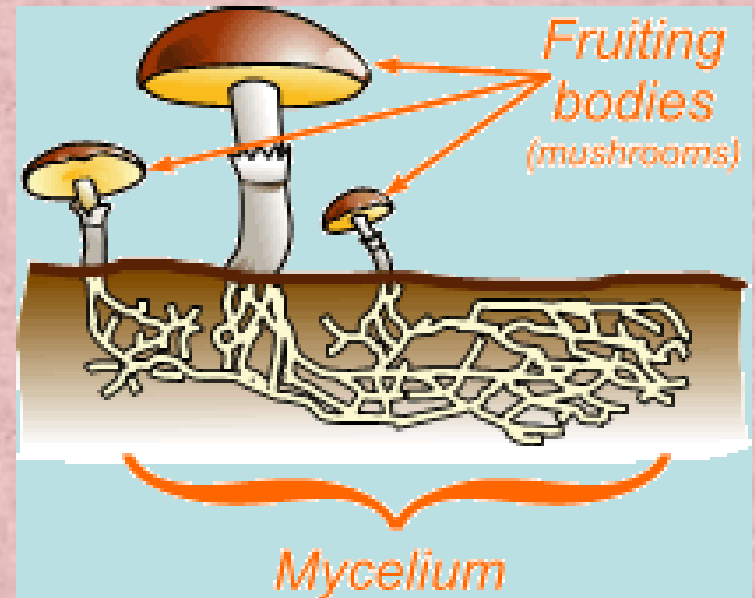
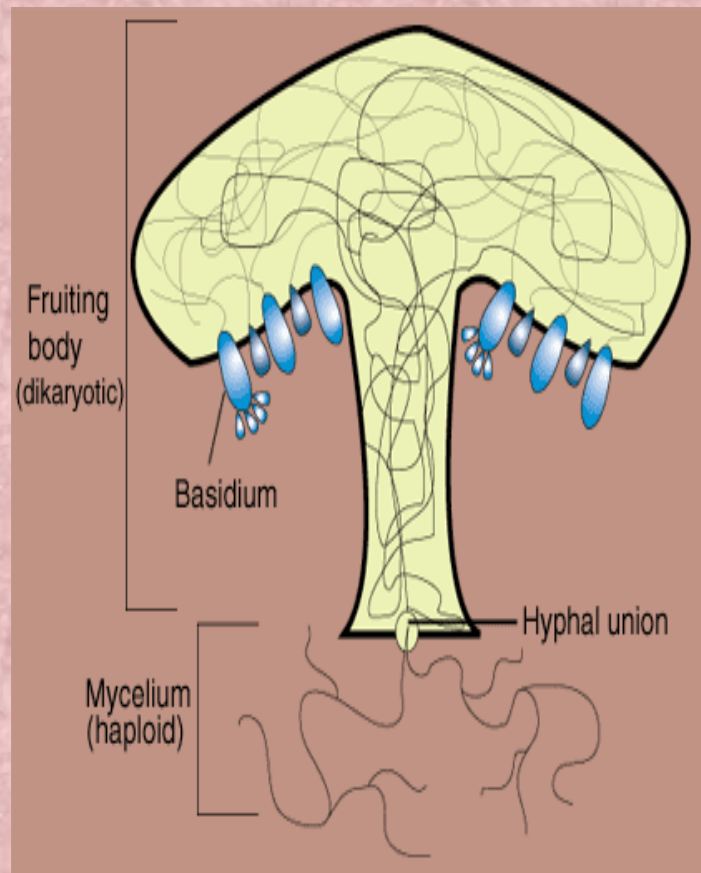
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Sir Alexander Fleming-penicillin

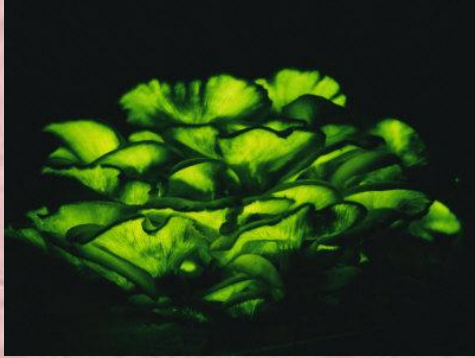
3. Club Fungi

- Examples: Mushrooms, toadstools
- Most elaborate life cycle of all the fungi



Club fungi

Jack-o'-lantern



Earth



Brackets



Puffballs



Club fungi



Toadstool



Champignon



Eg:
Death
cap



Fungi Reproduction:

Fungi are categorized based on their fruiting structures (spores).

- The structure of the fungi that you can see, is the part that carries out reproduction
- Most fungi reproduce by using spores
- Fungi spores are microscopic

Obtaining Energy

Saprophytic-From decaying organic matter

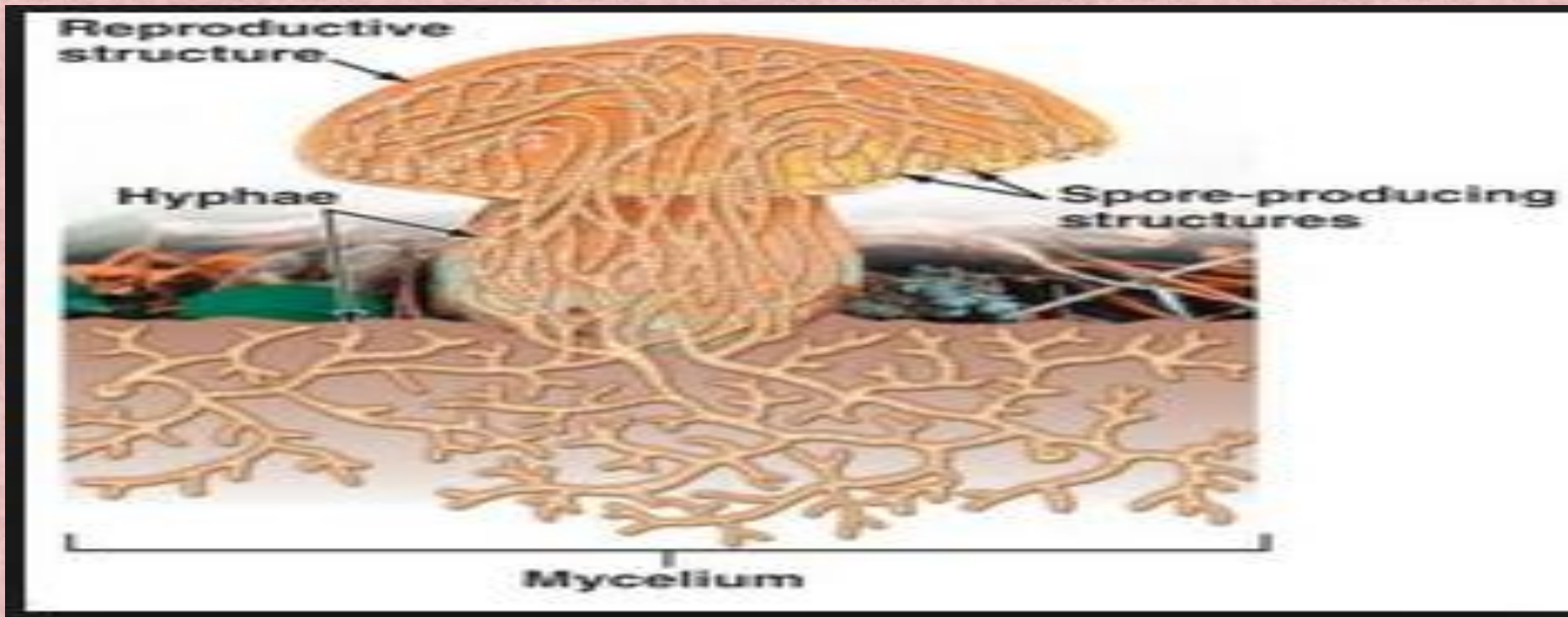
Parasitic-Feed on other living organisms(host) and harm the host.

Symbiotic-Feed on other living organisms(host) and do ***not*** harm the host.

Fungi do not have roots, but instead use hyphae.

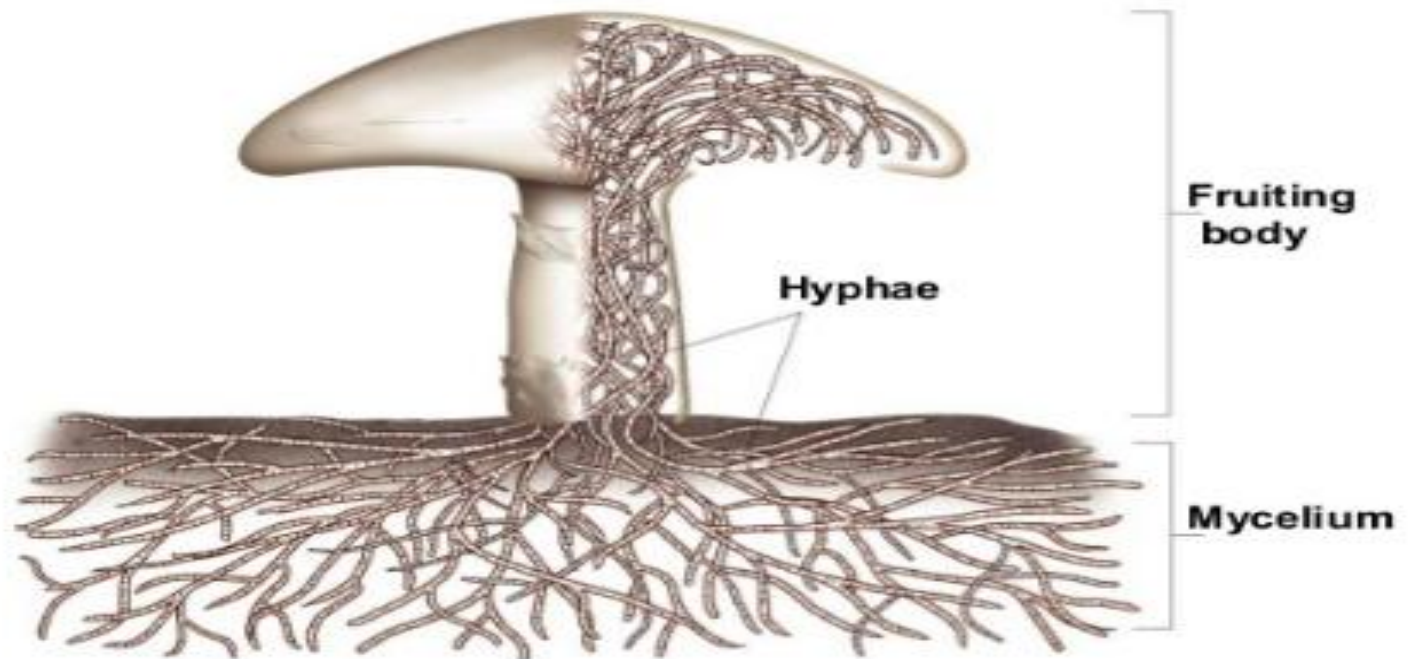
Hyphae-long fibrous strands to obtain water and nutrients

Mycelium-a group of hyphae



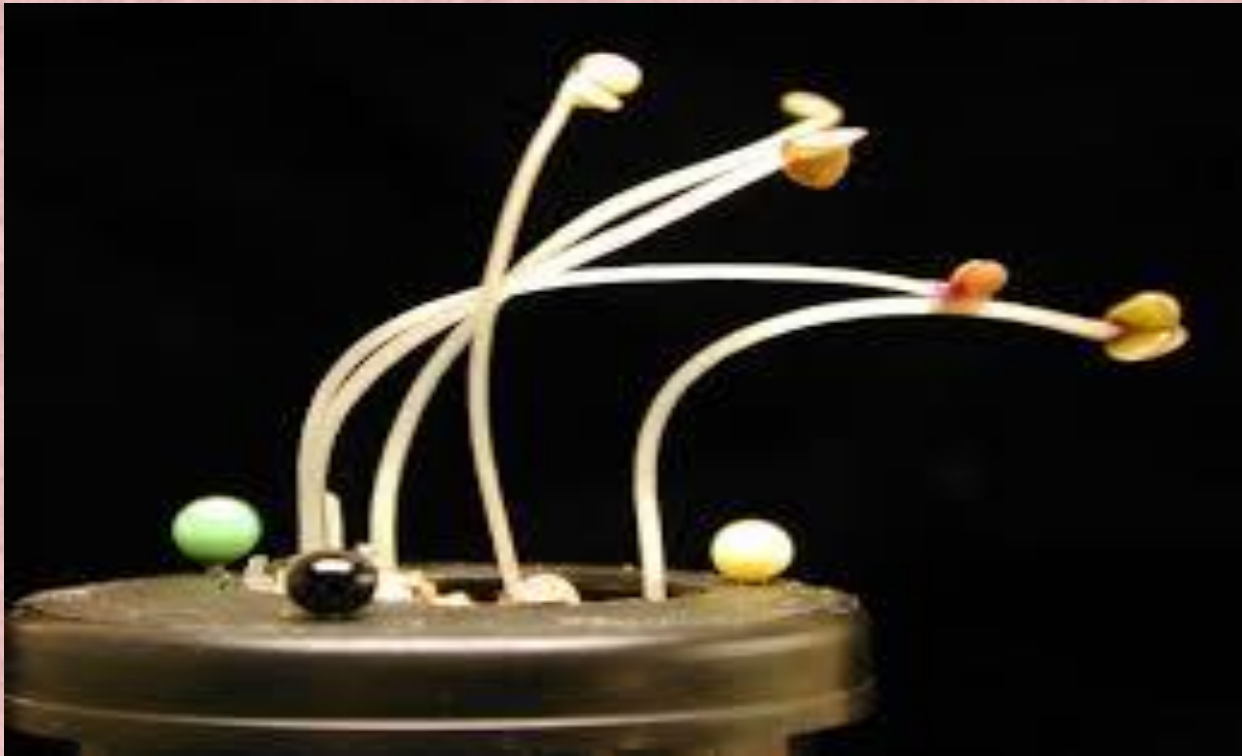
Hyphae will grow towards stimuli, like food and water.

The Structure of a Mushroom



PHOTOTROPISM

Fungi will grow in response to light

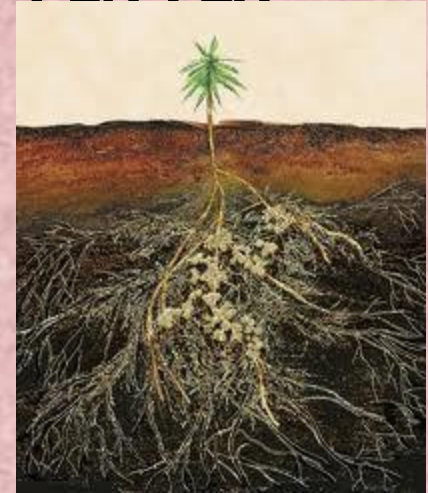


GRAVITROPISM

Fungi will grow away from gravity, but tend to show negative gravitropism.



Extra Info-Importance of fungi



- Can cause diseases to plants, to animals or even humans
- Can be edible or poisonous
- Can be useful for alimentary, distilling and pharmaceutical industry

