

Lecture 3 Study Guide (video: 1 hour 4 minutes)

Study Questions

1. What distinguishes an anamorphic fungus from a teliomorphic one?
2. To what kingdom do the Oomycota belong? Are they true fungi?
3. Why do most all fungi (and oomycetes) exist primarily as mycelia rather than as large, well-defined bodies?
4. What are the main distinguishing features of the Ascomycota, Basidiomycota, and Zygomycota? (Consider their types of spores, hyphal characteristics, and usual nuclear conditions.)
5. What are conidia and how are they different from zoospores? Ascospores? Basidiospores?
6. Compare and contrast the sexual stages of the Oomycota and Zygomycota.
7. Fungi are the most efficient cellulose digesters on this planet. Why is that significant?
8. What distinguishes Eukaryotes from Prokaryotes?
9. By what mechanisms do fungi and oomycetes disperse themselves?
10. By what mechanisms do fungi and oomycetes survive adverse conditions on site?

Key Words

Anamorph (asexual condition)
Antheridium (-ia)
Ascomycete (sac fungi)
Ascus (eight ascospores)
Basidiomycete (club fungi)
Basidium (four basidiospores)
Beneficial fungi (as cellulose digesters and symbionts)
Chlamydospore
Chromistic algae (Oomycota; Kingdom Protista)
Coenocytic mycelium (Oomycota)
Conidiophore
Conidium (-ia)
Dikaryon (Basidiomycota)
Diploid (Oomycota)
Eukaryote (Kingdoms Protista, Animalia, Plantae, Fungi)
Eumycota (Ascomycota, Basidiomycota, Zygomycota; Kingdom Fungi)
Flagellum (-a)
Haploid (Zygomycota and Ascomycota)
Harmful fungi (as cellulose digesters and plant pathogens)
Hypha (-ae)
Mycelium (-ia)
Nuclear conditions of fungi and oomycetes
Oogonium (-ia)
Oospore

Prokaryote Kingdom (Monera, i.e. bacteria)

Pycnidium (-ia)

Sclerotium (-ia)

Septate mycelium (Eumycota)

Sporangium (-ia)

Teliomorph (sexual condition)

Zoosporangium (-ia)

Zoospore

Zygomycete