

Chapter
20
Fungi, continued
Reinforcement and Study Guide
Section 20.2 The Diversity of Fungi

In your textbook, read about zygomycetes.

Order the steps of growth and reproduction in zygomycetes from 1 to 5.

- _____ **1.** Hyphae called rhizoids penetrate the food, anchor the mycelium, and absorb nutrients.
- _____ **2.** An asexual spore germinates on a food source and hyphae begin to grow.
- _____ **3.** Spores are released and another asexual cycle begins.
- _____ **4.** Hyphae called stolons grow across the surface of the food source and form a mycelium.
- _____ **5.** Special hyphae grow upward to form sporangia that are filled with asexual spores.

Use each of the terms below just once to complete the passage.

yeasts

conidia

multicellular

conidiophores

yeast cells

sac fungi

ascospores

unicellular

vaccine

ascus

Ascomycotes are also called **(6)** _____ because they produce sexual spores, called **(7)** _____, in a saclike structure, called a(n) **(8)** _____.

During asexual reproduction, ascomycotes produce spores called **(9)** _____.

These asexual spores are produced in chains or clusters at the tips of structures called

(10) _____, which are elongated hyphae.

Morels and truffles are **(11)** _____ ascomycotes that are edible. Yeasts are **(12)** _____ ascomycotes. **(13)** _____ are used to make beer, wine, and bread. They are also used in genetic research. A(n) **(14)** _____ for the disease hepatitis B is produced from rapidly growing **(15)** _____, which contain spliced human genes.

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continued**

In your textbook, read about basidiomycetes.

Answer the following questions about the life of a mushroom.

16. What are basidia and where are they found?

17. What happens when mycelia of two different mating strains meet?

18. What does a mycelium with two nuclei in its cells form?

19. What does a diploid cell inside a basidium produce as a result of meiosis?

In your textbook, read about deuteromycetes, the mutualistic relationships of mycorrhizae and lichens, and the origins of fungi.

Write the letter of the item in Column B that best completes each statement in Column A.

Column A
Column B

- | | |
|--|------------------------------|
| _____ 20. _____ is an example of a deuteromycote. | a. basidiomycetes |
| _____ 21. A mycorrhiza is a mutualistic relationship between a fungus and a(n) _____ . | b. mycorrhizae |
| _____ 22. _____ is an antibiotic produced by a deuteromycote. | c. alga |
| _____ 23. Plants that have _____ associated with their roots grow larger. | d. <i>Penicillium</i> |
| _____ 24. _____ make up a division of fungi that have no known sexual stage. | e. pioneer species |
| _____ 25. A lichen is a mutualistic relationship between a fungus and a(n) _____ or cyanobacterium. | f. deuteromycetes |
| _____ 26. Lichens are _____ in all parts of the world. | g. penicillin |
| _____ 27. Scientists think that ascomycotes and _____ evolved from a common ancestor. | h. plant |