

TABLE 14-1 Major Characteristics of Fungal Phyla

Phylum	Representatives	Nature of Hyphae	Method of Asexual Reproduction	Type of Sexual Spore	Common Plant Diseases
Chytridiomycota (790 species)	<i>Allomyces</i> , <i>Coelomomyces</i>	Aseptate, coenocytic	Zoospores	None	Brown spot of corn, crown wart of alfalfa, black wart of potato
Zygomycota (1060 species)	<i>Rhizopus</i> (common bread mold), <i>Glomus</i> (endomycorrhizal fungus)	Aseptate, coenocytic	Nonmotile spores (sporangiospores)	Zygospore (in zygosporangium)	Soft rot of various plant parts
Ascomycota (32,300 species)	<i>Neurospora</i> , powdery mildews, <i>Morchella</i> (edible morels), <i>Tuber</i> (truffles)	Septate	Budding, conidia (nonmotile spores), fragmentation	Ascospore	Powdery mildew, brown rot of stone fruits, chestnut blight, Dutch elm disease
Basidiomycota (22,244 species)	Mushrooms (<i>Amanita</i> , poisonous; <i>Agaricus</i> , edible), stinkhorns, puffballs, shelf fungi, rusts, smuts	Septate, with dolipore in many species	Budding, conidia (nonmotile spores, including urediniospores), fragmentation	Basidiospore	Black stem rust of wheat and other cereals, white pine blister rust, common corn smut, loose smut of oats, <i>Armillaria</i> root rot

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