International Scholars Journals

Advanced Journal of Microbiology Research ISSN 2756-1756 Vol. 15 (2), p.001, September, 2021.
Available online at www.internationalscholarsjournals.com © International Scholars Journals

Editorial

Role of fungi in microbiology

Don Felix*

Institute of Education, University of Nigeria, Nsukka, Nigeria

Accepted 20 September, 2021

EDITORIAL

Fungi are heterotrophic, saprozoic organisms that come in a variety of shapes and sizes. Many unicellular yeasts and spores of macroscopic fungus are microscopic, in addition to the well-known macroscopic fungi (such as mushrooms and moulds). As a result, fungi are considered part of the field of microbiology. Humans benefit from fungi in a variety of ways. Fungi are found on both microscopic and macroscopic scales, and some pathogenic species can cause mycoses (illnesses caused by fungi).Some pathogenic fungi are opportunistic, meaning they only cause infections when the host's immune system is weakened, and they don't generally cause illness in healthy people. Fungi are useful in a variety of ways. They operate as environmental decomposers and are necessary for the manufacture of certain foods, such as cheese. Antibiotics are also produced by fungi, such as penicillin, which is produced by the fungus Penicillium.

Fungi have distinct traits that distinguish them from other species. The threads termed hyphae make up the majority of multicellular fungal organisms, also known as moulds. Hyphae can create a mycelium, which is a tangled network that forms the thallus (body) of fleshy mushrooms. Septate hyphae have walls between the cells; nonseptate or coenocytic hyphae do not have walls or cell membranes between the cells.

Fungi are divided into seven primary groupings, each with its own set of characteristics. Pathogens aren't found in all of the seven groupings. Plant pathogens are among the groups that are commonly connected with plants. Plant rusts and smuts, for example, are classified as Urediniomycetes and Ustilagomycetes, respectively. Rusts (red) and smuts (dark) create reddish or dark lumps on plants, respectively (dark). Because of their capacity to diminish crop production, some species have a significant economic impact. Mycorrhizal fungi are key symbionts with plant roots that can enhance plant growth by acting as an expanded root system. Glomeromycota comprises mycorrhizal fungi.Glomeromycota are obligate symbionts, which means they can only survive when they're attached to plant roots; the fungi get carbohydrates from the plant, and the plant gets a boost in its ability to absorb nutrients and minerals from the soil. Chytridiomycetes (chytrids) are tiny fungi of enormous ecological significance. Chytrids are aquatic and feature flagellated, motile gametes; particular types have been linked to global amphibian reductions. We'll concentrate on Zygomycota, Ascomycota, Basidiomycota, and Microsporidia because of their medical value.

For asexual reproduction, they use sporangiospores. The zygospores that they use for sexual reproduction are the source of the group's name. For asexual reproduction, they use sporangiospores. The zygospores that they use for sexual reproduction are the source of the group's name. Food-producing fungus (edible mushrooms, morels, and truffles), food-spoiling fungi (bread moulds and plant infections), and human pathogens all belong to the Ascomycota. Ascomycota have septate hyphae and ascocarps, which are cup-shaped fruiting bodies. Ascomycota genera use both sexually generated ascospores and asexual spores termed conidia.Others, on the other hand, have yet to be discovered or described.

Finally, Microsporidia are obligatory intracellular parasitic unicellular fungus. They don't have mitochondria, peroxisomes, or centrioles, but their spores produce a special polar tubule that pierces the host cell membrane and allows the fungus to enter. Microsporidia are human pathogens, and diseases caused by them are known as microsporidiosis. *Enterocystozoan bieneusi* is a pathogenic species that can cause diarrhoea, cholecystitis (gall bladder inflammation), and, in rare occasions, respiratory sickness.

*Corresponding author. Felix Don, E-mail: df170@gmail.com.