

INTRODUCTION TO MUSHROOM WORLD



Mushroom is a fleshy fruiting body of some fungi arising from a group of mycelium buried in substratum. Most of the mushrooms belong to the Sub- Division: Basidiomycotina and a few belong to Ascomycotina. In general, the fungi are put under a separate Kingdom: protist and are divided further as follows:

In Basidiomycotina, three types of mycelia viz., primary, secondary and tertiary are noticed. The primary mycelium is monokaryotic and is formed by germination of Basidiospores. These are of different mating types and give rise to secondary mycelium by somato-gamy or fusion of two basidiospores or spermatization of two female sex organs. The secondary mycelium forms major portion of the somatic phase and later produces tertiary mycelia, which give rise to fruiting body- basidiocarp (Mushroom).

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The edible fruiting bodies are called **mushroom** and poisonous ones are called as **toadstools**. The word “**toadstool**” in fact, is a distortion of the German word “Toadestuhl”, which means “death chair”. Moreover, the name of the “mycology” was given to the “study of mushrooms” (Mykes = mushroom). In addition, some fungi belong to Ascomycotina (Class: Discomycetes, Order: Pezizales and Family: Morchellaceae) also produce fleshy fruiting bodies which are used as food. They are commonly called as Morels and Truffles. Species of Morchella and Tuber are such edible fungi under this sub division. In Tuber, the cup-shaped fruiting body is infolded and resembles like potato and hence called Tuber. In Morels, the cup is infolded and convoluted like a sponge, hence called as Sponge mushroom.

It is reported that there are about 50,000 known species of fungi and about 10000 are considered as edible ones. Of which, about one hundred and eighty mushrooms can be tried for artificial cultivation and seventy are widely accepted as food. The cultivation techniques were perfected for about twenty mushrooms and about dozen of them have been recommended for commercial cultivation. However, only six mushrooms are widely preferred for large-scale cultivation.

1. Paddy straw mushroom - *Volvariella spp.*
2. Oyster mushroom - *Pleurotus spp.*
3. Button mushroom - *Agaricus spp.*
4. Milky mushroom - *Calocybe spp.*
5. Shiitake mushroom - *Lentinus spp.*
6. Jew's ear mushroom - *Auricularia sp.*

