

Phylum Basidiomycota

Order: Agaricales

The Mushrooms

The large order Agaricales includes basidiomycetous fungi whose fruiting bodies we commonly call mushrooms, the most conspicuous parts of which are the pileus (cap) and stipe (stalk). Mushrooms are fleshy, sometimes tough, umbrellas like sporophores that bear paraphyses of the chiasmoid type, on the surface of the gills or lamellae that hang down from the cap or in the so called boletes, lining the sides of deep or shallow tubes, formed on the under surface of the cap. These are widely studied, because many people hunt mushrooms either for food or simply as a hobby. Mushrooms are also sometimes called as "Agarics". Mushrooms may be found in arctic to the tropics, upland and bogs. Still other prefer open areas such as gardens, lawns, or pastures. Many species, particularly the mycorrhizal forms, will be associated with certain types of vegetation. Within a certain habitat mushrooms also may show a preference for a particular substrate.

Basidiocarps of some typically are produced on the soil and generally are referred to as terrestrial forms. Others are formed on dead leaves (foliicolous), on wood (lignicolous) or dung (coprocalcesphilous).

Various species produce their basidiocarps at different seasons of the year. Some grow well in the spring while other grow well in summer or winter. Basidiocarps of many species serve as important food sources for a variety of animals ranging from insects to large mammalian herbivores such as deer.

Edible and Poisonous Mushrooms

There is no clear cut difference between edible and poisonous mushroom except "the experience". However, there are some rules which can be helpful. For example, if a mushroom makes the silver and onion into black in colour that may be poisonous. Further, paper-cup is exhibited by peeling off the cap and the colour of the gills. But these rules can not be followed, because poisonous property of mushroom varies from species to species.

Agrics Have 14 species of cultivated mushrooms, among these only six are being cultivated on indust-

industrial level. The most commonly cultivated mushrooms are;

- 1- The shiitake mushroom (Lentinula edodes)
- 2- oyster mushroom (Pleurotus ostreatus)
- 3- Meadow mushrooms (Agaricus bisporus)

The commercial production of agarics require eight processes. The process begins with basidiospore germination and concludes with packing and marketing of sporophores. Not all eight stages are, however, actually performed by the mushroom grower. The production of "spawn" - a pure culture of the secondary mycelium grown on special media, is done by professionals under controlled laboratory conditions. Spawn is normally obtained by germinating basidiospores, although it also can be produced by culturing small pieces of tissue removed from a fresh basidiocarp. The base medium for spawn usually consists of either rye grain to which water and chalk have been added or tobacco stems. The growers use small pieces of commercially prepared spawn to inoculate beds of composted straw and manure on which the mushrooms will be grown.