

FAIRY RINGS

The fungus invades the roots of plants, particularly in the Ericaceae. While in the roots. Some of the important species are *Marasmius oreades*, *A. mellea* and *Amanita* spp.

The mycelium of *Agaricales* is typically basidiomycetous. There are three types of mycelia, the primary, secondary and tertiary mycelia. **Primary mycelium** arises from a homokaryotic basidiospore. The **secondary mycelium** is the dikaryotic hyphae which becomes dikaryotic by various ways as discussed earlier and the **tertiary mycelium** forms complex fruit bodies. The life span of the primary mycelium is of short duration in nature while the binucleate dikaryotic mycelium is more abundant and perennates and is responsible for producing basidiomata year after year. According to Butler and Jones (1949), the perennial mycelium of *Marasmius oreades* is known to survive for as many as 400 years and produces a crop of mushrooms every year. The secondary mycelium of some of the *Agaricales* may or may not possess clamp connections and this mycelium forms the fruit bodies. Some of the basidiomycetous fungi produce shoe string like structures which are called rhizomorphs. The **rhizomorph** (Gr. *rhiza* = root + *morphe* = shape) is made up of several thousand parallel unbranched septate hyphae, the growth of which is so coordinated that rhizomorph grows as a single unit from an apical meristem in the manner of a plant root.

The mycelium of some mushrooms when it grows on the ground particularly forms a circular colony that continues growing year after year and produces a crop of basidiomata at the periphery of the colony thus forming a ring called a **fairy ring**. As the superstition goes it was believed that the fairy rings are the paths of dancing fairies. It may be mentioned that the fairy rings are of three chief types; (i) in which the development of the fruit bodies has no effect on the vegetation *i.e.* *Lepiota morgani*; (ii) in which there is increased growth of the vegetation *e.g.* *Lipsta personatum* and members of *Lycoperdaceae*; and (iii) in which the vegetation is damaged, sometimes so badly as to have an effect on its value *e.g.* *Agaricus praerimosus*, *Clitocybe gigantea*, *Marasmius oreades*. The rings of the third type have outer and inner rings in which the growth of the vegetation is strong with a ring of dead or badly damaged vegetation between. Increased growth or greener colour of the vegetation is due to the

nitrogenous substances that become available to the grass as the older hyphae of the fungus mycelium die and disintegrate. It may be mentioned that the rings are started from a mycelium, the growth of which is at all times on the outer edge because of the band of decaying mycelium and used up soil within the ring of active hyphae. It has been estimated that in *Agaricus praerimosus* the mean growth of a ring is 12 cm in radius every year (0-30 cm in any one year) and from this the age of the rings were thought to be possibly 600 years old.

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A. campestris (*L. campester* = relating to plain or flat field), the field mushroom, is a common wild edible mushroom which is sought eagerly and is offered for sale. It grows amongst grass in pastures, on old lawns, often growing as “**fairy rings**” marked by grass of a darker green colour. It is now considered to be a different species from the various cultivated mushrooms and is characterized by the gills, which are bright pink at first, 4-spored basidia and the absence of any sterile cells in the gill edge. The skin of the cap is made up of fine radiating fibrils, which become tinged brownish with age, and sometimes may produce a slightly scaly appearance, especially in the centre of the cap.