The structure of mycorrhizal fungi

There are three main groups of mycorrhizal fungi:

Arbuscular mycorrhizal fungi (AMF): almost all garden plants and shrubs, except large trees

Ectomycorrhizal fungi (ECMF): large deciduous woodland trees and pines

Ericoidal mycorrhizal fungi (ERMF): rhododendrons, heathers, cranberries, blueberries

Fruiting body of ectomycorrhizal fungi





Some mycorrhizal fungi form prominent fruiting bodies, or mushrooms. These contain the spores by which they propagate themselves. They often appear in rings around tree roots.

The fruiting body of arbuscular mycorrhizal fungi appear below ground and can only be seen under a microscope.

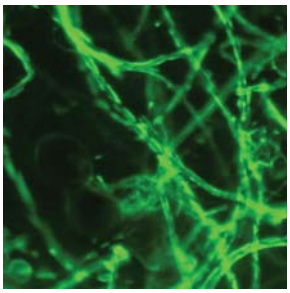
Mycelium

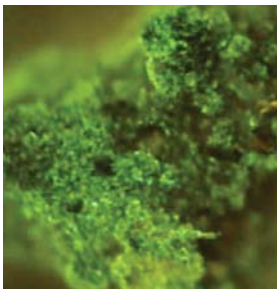
The mycelium is the vegetative part of a fungus, consisting of a mass of branching, thread-like hyphae. In mycorrhizal fungi these hyphae are the main mode of vegetative growth, and the mechanism by which water and nutrients are transported to the host plant. This can sometimes be seen as a white growth around the roots of nursery-raised pine trees when removed from their container.





Glomalin





Glomalin is a sticky glycoprotein produced abundantly by arbuscular mycorrhizal fungi. It binds soil particles together to form aggregates, contributing to soil stability and erosion control.

Glomalin is also an important carbon store, and has been estimated to hold 30% of global soil carbon. As atmospheric CO_2 levels rise the fungi produce more glomalin, thereby enhancing the sink effect.

Plant Works