

The Hidden Partners Of The Plant World



Under every good plant, there's a mycorrhizal fungus

Fungi are not plants (they are a Kingdom in their own right). Yet one group of 'hidden' fungi have evolved specialised partnerships with plants. Mycorrhizal fungi colonise the plant roots – generally, this benefits both the fungi and the plant. Some plants cannot survive without their mycorrhizal fungal partner. About 90% of all vascular land plants have mycorrhizal fungi, which indicates just how essential these useful these partnerships are to terrestrial plants.



Two sides of the partnership

The fungi effectively extend the surface area of the 'plant + fungus' root system allowing more water and nutrients to be absorbed. For example, phosphorus is often in very short supply (or is present in insoluble forms) in natural soils, and mycorrhizas are known to help plants acquire phosphorus. Without the fungal partner, plants would require vastly larger root systems to get all the phosphorus they need. Even then, plants may not be capable of unlocking the tightly bound nutrition.

In turn, the plant provides the fungi with carbohydrates / sugars from photosynthesis. To the fungus this means food and energy.

