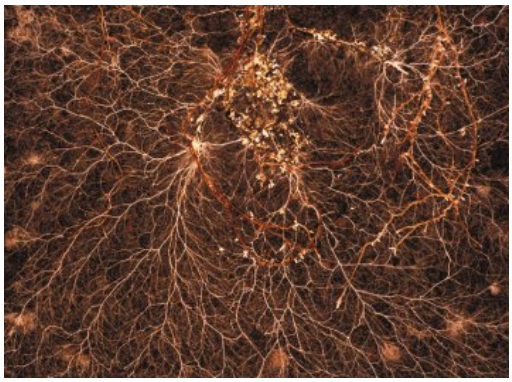
FRIENDLY FUNGI

Autumn is upon us; the season of mists and mellow fruitfulness and with it comes a certain tang in the air, difficult to describe but so characteristic of this time of year – the smell of fungi.

To many gardeners fungi are an anathema. Whether it is black spot on roses, mildew on asters, potato blight or the dreaded Armillaria (honey fungus) striking down prized shrubs and trees, fungi are the enemy. But not all fungi are bad. In fact, plants and fungi have formed a partnership in survival for more than 500 million years. The relationship is beneficial to both plants and fungi: a symbiosis. The fungus, which penetrates the plant roots, supplies it with nutrients and water in exchange for food in the form of sugars. This association between plant and fungus is known as mycorrhiza (literally 'fungus root') and although first described over a century ago, it is only more recently that it has become recognized that such associations are the norm rather than the exception, with more than 95% of higher plant species forming symbiotic relationships with mycorrhizal fungi.



Armed with this knowledge, many foresters and horticulturists thought that the mortality rates of newly planted trees and shrubs may be improved with the addition of mycorrhizal inoculants at the time of planting. These inoculants were initially available commercially in liquid or gel formulation suitable for dipping in the roots of dormant bare-root woody plants. Over recent years, powders containing mycorrhizal fungi have become widely available for purchase by the home gardener and can be added to the growing medium of a range of container grown plants. But are they effective? The jury is still out on this one, although many horticulturists consider that in less favourable conditions where the soil has been disturbed or compacted, or the plant is under stress from drought or disease, mycorrhizal inoculants provide the plant with a better chance of survival. However, where conditions are more favourable, and plants are well fed and watered, inoculation may be unnecessary. Nurturing the soil by minimizing disturbance and refraining from using inorganic fertilizers (which are toxic to mycorrhizal fungi) as well as mulching with organic matter may be more useful in promoting healthy plant growth simply by preserving natural mycorrhizal associations.

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