

BENEFITS OF SOIL FUNGI:

Fungi that colonize the root zones of plants and surrounding soil can be beneficial for plant growth. As the fungi enlarge and weave through the root zones, they send threads, far from the roots, to colonize the soil and produce water stable aggregates that link up as macro-aggregates. This maximizes the percolation of moisture and air into the root zones, improves soil structure and promotes subsurface plant growth. Once colonization has occurred, the fungi suck up nutrients that, in effect, improve the nutritional status of the plant and boost its ability to resist stresses from drought and disease, as well as pests.

Inoculating seed with beneficial microbes i.e. **ESST - Seed Treatment**, prior to planting, promotes the establishment of fungi in the root zone. The benefits associated with this process include enhanced rooting and soil stabilization, reduced shock, and the establishment of symbiotic relationships with the plant and other beneficial microbes including nitrogen fixing microbes and phosphate solubilising microbes that can dissolve phosphorus and make it available for plant uptake.

When seed inoculation is not possible, beneficial microbes in **ESFF - Foliar Fertilizer**, **ESPF - Pasture Fertilizer** or **ESCF - Cereal's Fertilizer** can be applied after planting. For example, in established orchards, vineyards, plantations etc. where seed inoculation is impossible, beneficial microbial combinations, including fungi, can be injected into the root zones.

Fungi do however have limitations, including variations in plant response and the correct species of fungi must be used.

It is however important to understand that the use of synthetic chemicals and pesticides can adversely affect the soil microbial balance and cause the benefits associated with fungi and other microbes to be lost. Tillage, that disturbs the plant roots, can also have an adverse effect on soil fungi.