

## HW's Use of M. Fungi Organic Supplements

Houston Wilderness uses one of two types of Mycorrhizal Fungi organic supplement during the large-scale *Super Tree* plantings under the HSC TREES Program. USE: Both supplements should be applied to the planting hole around the root ball, and then water/soil applied. The supplement must be placed in contact with the root ball area for best effectiveness. Two ounces/hole for a seedling and three ounces per hole for a 5-gallon tree is enough. The mycorrhizal fungi colonize plant roots and extend far into the soil resource. The fungi improves the ability of the trees to utilize the soil resources. The fungi increases water and nutrient uptake by providing a larger root mass. The improvement in the plant / soil ecosystem increases plant establishment. The Benefits and Contents of both types are below, as well as more detailed descriptions of each:

### **BENEFITS:**

- Adds critical Mycorrhizal Fungi to the soil around the tree root – aiding in phytoremediation
- Improves soil and plant ecosystem
- Increases plant establishment and growth
- Reduces transplanting stress and plant loss
- Increases nutrient and water uptake
- Improves soil structure and porosity
- Reduces need for any fertilizer use

**CONTENTS:** **Arbuscular Endomycorrhizal (AM) Fungi** - Minimum of 5760 viable propagules per pound of material derived from seven species: *Glomus intraradices*, *Glomus aggregatum*, *Glomus mosseae*, *Glomus clarum*, *Glomus deserticola*, *Glomus monosporum* (SMT) and *Gigaspora margarita* (SMT) or *Glomus etunicatum* (MMP). **Ectomycorrhizal (EM) Fungi** - Minimum of 586 million viable propagules per pound of material derived from seven species: *Pisolithus tinctorius*, *Rhizopogon rubescens* (SMT), *Rhizopogon luteolus* (MMP), *Rhizopogon fulvicleba*, *Rhizopogon villosuli* and *Rhizopogon amylopogon*, two species of *Scleroderma*.

**(1) SOIL MOIST TRANSPLANT (SMT)** - Soil Moist Transplant is formulated to inoculate transplant shrubs and trees during planting time. Soil Moist Transplant contains a diverse blend of seven species of healthy viable AM propagules and seven species of healthy viable EM propagules that are adapted to a wide range of trees and habitat conditions.

Each pound of Transplant contains over five billion colony forming units (CFU) of bacteria in the biostimulant formulation. There are over fifty (50) strains of beneficial bacteria and soil microbes as well as natural plant extracts that promote root growth and formulation. Five strains of *Trichoderma* are included in the formulation to produce natural growth hormones and enhance disease suppression. **Soil Moist™ water storing polymers** are included in the formulation to reduce transplant stress and water maintenance while increasing the establishment of newly planted stock.



**(2) MICROLIFE MYCORRHIZAL PLUS (MMP)** – MicroGro Mycorrhizal Bio-Inoculation contains 150,000 Mycorrhizal Propagules and 1.6 billion Rhizobial CFUs. The granulated all-organic biological supplement also contains high grade humate ore, selected sugars, help, corn meal, brewer's yeast extract, Yucca, selected amino acids.

