



## ***SuperRoots*** technical information

**Suspended Concentrate  
Bio-Fertilizer for Roots**

### **Description and benefits:**

When mixed with water as directed, ***SuperRoots*** is a ready to apply complex bio-fertilizer providing macro and micro-nutrients, mycorrhizae and microbes for tree and shrub liquid root treatments. ***SuperRoots*** has been extensively used on varied Northwest plantings, soils and environments and has proven to correct nutrient deficiencies and provide vital biological components necessary for water and nutrient uptake.

***SuperRoots*** has been specified and applied to trees and shrubs ailing from root rotting fungus. When used in a plant health care program, ***SuperRoots*** has been shown to stimulate rapid fine root development, aiding in the recovery of damaged root systems. In turn, the canopy foliage and flowers benefit from mineral uptake with enhanced color leading to improved photosynthesis and plant health.

### **Timing of treatments:**

***SuperRoots*** can be applied any time soil conditions will allow. Application to frozen or drought stressed soils should be avoided. For trees, fall and winter applications will result in beneficial responses the next spring. Spring treatments may follow if trees will benefit from increased wood tissue development, i.e. when callous tissue is needed to close wounds or increased canopy density is desired. The product label has specific directions relative to the proper placement of the fertilizer in the root zone, which is vital for maximum uptake and resulting performance.

As a tree fertilizer, **SuperRoots** encourages normal growth but will not result in surge growth. The moderate level of organic/synthetic nitrogen is treated to release slowly and completely for approximately 2-3 months, which should not stimulate harmful root rotting fungi.

As a shrub fertilizer it will encourage chlorophyll production enhancing leaf/needle and bloom color but will not stimulate excessive growth. Noticeable results occur within one growing season and when applied in the spring, color responses will be noticed within 60 days or less.

### **Components:**

**SuperRoots** is a complex of low biuret urea treated with **Nutrex-M/F** to minimize volatilization and leaching, potash, **SuperTrace** fully chelated micronutrients with fulvic acid, OMRI approved endo/ecto mycorrhizae with root shielding trichoderma/scleroderma and SoilSeeds USDA compliant microbes.

**SuperRoots** contains no phosphates and no harsh acids and can be applied safely to the root zone of all plants, but not to foliage.

### **Fully chelated micro-nutrients:**

**SuperRoots** micro-nutrients are naturally fully chelated with organic acids and contain no EDTA, known to be a pollutant persisting in the soil for decades after application. Full chelation protects minerals from oxidation holding them in a form and size that roots can easily assimilate. Fulvic acid enhances the uptake of nutrients since roots have an affinity to the compound. Metals, i.e. iron, zinc, copper etc., “hitchhike” on the fulvic molecule and roots readily take them in.

### **Microbial activity:**

**SuperRoots** contains several strains of microbes that begin to proliferate within minutes of application where soil temperatures are in the 50 degree range. These biological components break down fertilizer and organic matter for root uptake. Biologically deprived soils are common in most urban landscapes due to common site development practices. Most landscapes under high input have their leaf and/or needle debris removed leaving roots no organic matter for future nutrients. Bark mulches tend to be non-supportive until they are aged and inorganic rock or rubber mulches never are a benefit relative to nutrients.

**SuperRoots** supports or re-establishes the microbial family necessary for the nutrient continuum. Microbes reproduce by the billions per hour under normal conditions and are absolutely vital to plant health.

**Mixing and compatibility:**

*SuperRoots* is a suspended concentrate, that mixes easily with water and stays suspended under adequate agitation. It will not plug nozzles when diluted as directed. 50 mesh screens are preferred due to the size of the mycorrhizal spores. Agitation is recommended for several minutes before each use to ensure all the components are thoroughly suspended.

*SuperRoots* may be mixed with pesticides registered for root application such as Subdue, Medallion and phosphanate fungicides.