



Description	Main Use	When to Apply	How to Apply	Features and Benefits	Application Rate*	Technology			
Establishment Products									
Roots Tree Saver®	Shrubs, Trees	At planting	Mix with backfill	Reduces transplant shock and loss rates; Improved absorption of water and minerals	3 oz. per inch trunk diameter.		★	+	◆
Roots Healthy Start Advanced® MRT 3-4-3	Trees, Shrubs, Flowers	Spring, Summer or Early Fall	Mix with soil at planting or Auger Drill	Increases plant survival, water and nutrient absorption; Increases tolerance to environmental extremes	Gardens: 5 lbs./100 sq. ft. Tree: 4 oz./drillhole		★	+	◆
Establishment / Maintenance Products									
Roots Healthy Start Advanced® 3-4-3	Trees, Shrubs, Flowers	Spring, Summer or Early Fall	Mix with soil at planting or topdressing	Restores natural fertility to disturbed soils; Adds rich organic matter; Will not burn.	25 lbs./1,000 sq. ft.		★	+	
Maintenance Products									
Roots Fe 8® 0-5-8	Trees, Shrubs	Growing season	Spray, fertigation, drip or soil injection	Green-up without rapid growth; Long lasting green-up	1 fl. oz. per 1,000 sq. ft.	◆			
Roots Concentrate	Trees, Shrubs, Flowers	Growing season	Spray or drench	Rapid root growth; Quicker regeneration for seedlings, cuttings and transplants	1 fl. oz. in 3 qts./200 sq. ft.		★		
Roots BioPak® Plus 3-0-20	Trees, Shrubs, Flowers	Spring, Summer or Early Fall	Spray, drench or soil inject	Quick recovery from stress; Improves root function without top growth	1 lb./10,000 sq. ft.	◆	★	+	
Roots Fertilizer for Trees 11-22-22 Roots Fertilizer for Trees SRN 11-22-22 Roots Fertilizer for Trees 27-9-9	Trees, Shrubs	Spring, Summer, and Fall (11-22-22 and 11-22-22 SRN)	Drench or Injection	Chemically-based elements address trees immediate nutritional needs; Beneficial microbes sustain fertility over the long-term	8 lbs. per 1,250 sq. ft. beneath the canopy		★	+	
Woodace 14-14-14 with Micros	Trees, Shrubs, Flowers	Spring and Fall	Topdressing, drop or rotary type spreader	Quick visual response and long term feeding; Addresses micronutrient deficiencies	Densely planted areas and ground covers: 1.4-2.9 lbs. per 100 sq. ft. (2-4 lbs. N/1,000 sq. ft.) Gardens: Preplant 1 lb. per 100 sq. ft., Top/sidedress 1/2 lb. per 100 sq. ft.	Balanced Fertilizer			
Woodace 18-5-10 Longterm	Trees, Shrubs, Flowers	Spring and Fall	Topdressing, drop or rotary type spreader	Provides consistent long lasting feeding; Includes high slow release content and minimal risk of burning	Individual plants: apply evenly within the dripline or known root area, adjust the recommended rate and treated area accordingly. Densely planted areas and ground covers: 1.1-3.3 lbs. per 100 sq. ft. (2-6 lbs. N/1,000 sq. ft.)	Slow release Fertilizer			
Woodace 12-3-6 A.C.R.E.	Trees, Shrubs, Flowers	Spring and Fall	Topdressing, drop or rotary type spreader	Restores and invigorates acid loving plants like azaleas, conifers, rhododendrons and evergreens; Addresses micronutrient issues	Individual plants: apply evenly within the dripline or known root area, adjust the recommended rate and treated area accordingly. Densely planted areas and ground covers: 0.8 - 2.5 lbs. per 100 sq. ft. (1-3 lbs. N/1,000 sq. ft.)	Acidifying Fertilizer			
Woodace Preen Plus Weed Control	Trees, Shrubs, Flowers	Prior to germination of target weeds or immediately after cultivation	Topdressing, drop or rotary type spreader	Extended pre-emergent control of crabgrass and numerous other weeds in flower and shrub beds	3.1 lbs. per 1,000 sq. ft. (0.31 lbs. per 100 sq. ft.)	Weed Control			

* Application varies depending on use.

◆ Mycorrhizal Fungi + Beneficial Bacteria ★ Biostimulants ◆ Chelated Micronutrients



The ROOTS® brand of biologically enhanced nutrients merge nature and technology to offer leading-edge solutions for turf and plant care. ROOTS products provide an all-in-one nutrient delivery system that feeds the plant while enhancing the biological life of the soil and plant ecosystem. Turf professionals, landscapers, growers, arborists, and nursery growers trust ROOTS to provide consistent color response, improved turf density and enhanced root mass.

Mycorrhizal Fungi Mycorrhizal fungi expand the root zone and allow plants the ability to take in necessary water, nutrients and micronutrients that would otherwise not be available. Plant survival and performance can be improved by incorporating a diverse population of mycorrhizal fungi at planting and transplanting time. Several ROOTS products contain Myconate®, a proprietary, patented stimulant of VAM mycorrhizal fungi. No other mycorrhizal products contain this unique compound that stimulates both introduced and native mycorrhizal fungi to rapidly colonize plant roots.

Beneficial Bacteria Forest soils are teeming with beneficial microbes, which contribute to the growth, health, and nutrition of forest plants. Unfortunately, many landscape soils often lack this biological diversity. Several ROOTS products deliver various species of beneficial bacteria selected for their ability to enhance soil fertility and plant nutrition, improve soil structure and, in some cases, protect from disease. In natural forest soils and constructed landscapes, microbes are not just beneficial; they're essential to healthy plant growth.

Biostimulants Sea plant extracts and meals are natural amendments for increasing the organic content of soil and improving overall stress tolerance. Seaweed products are completely biodegradable and provide an excellent nutrient source for beneficial rhizosphere bacteria to multiply and become established in the root zone.

Humic acids are powerful organic chelators that solubilize important minerals needed by plants. Humic acids help release bound mineral nutrients and hold them in soluble form where they are readily available for uptake by plant roots.

Chelated Micronutrients Micronutrients are essential to the overall health of the plant, but are oftentimes tied up due to the pH of the soil or water being used to apply the products. Several ROOTS products are manufactured using chelation a process that allows micronutrients to stay soluble for a period of time and thus allow plant uptake.



The Woodace brand features best in class high performance fertilizers and pesticide products for a variety of commercial and residential ornamental application needs. Designed specifically for the professional care of landscape beds and ornamentals, Woodace provides proprietary NPK components, proven AI, and additional enhancements formulated to deliver optimum plant health and visual response. Professional landscapers, arborists and nurseries alike rely on Woodace to help exceed customer expectations while saving both time and money.

