

## Amendments for Inadequate Urban Tree Soil

Rainbow Treecare has developed soil modifiers that improve the ability of roots to absorb water and nutrients at all stages of life.

We have formulated organic matter prescriptions to meet the needs of trees of any age or species. These formulas are beneficial for trees in any urban soil in the Twin Cities area.

## Why Use Prescription Organic Matter<sup>®</sup>?

- Urban soils are often compacted, low in oxygen, poorly drained, and low in organic matter.
- Natural organic matter cycling is disrupted in most urban soils.
- Soil nutrients in urban sites are difficult for the tree to utilize.
- Environmentally friendly, organic matter is nature's own fertilizer and soil conditioner.
- Urban trees live an average of 1/4 as long and have 1/3 the stored energy of a tree growing in a natural forest.



The long-term health and survival of young trees may be stressed by soil compaction, compromised root growth area, and limited access to soil nutrients.

The needs of a juvenile tree include a balanced root to shoot growth ratio and optimal nutritional and water availability.

Benefits of Prescription Organic Matter <sup>®</sup>	Increased	Decreased
Nutrient Availability	▲	
Water Retention	▲	
Soil Compaction		▼
Root and Shoot Ratio	▲	
Root Health	▲	
Photosynthetic Capability	▲	
Energy Storage	▲	
Resistance to Insects and Disease	▲	
Response to Environmental Stresses	▲	



As trees mature they may outgrow the area allocated to them. The focus needs to shift from above ground growth to root health and energy storage.

## Prescription Organic Matter<sup>®</sup> Formulas

The term "prescription" means that our treatments are not all the same, but are based on a tree's needs. We assess many variables to determine which prescriptive treatment is most appropriate for each tree. The key variables are tree condition, tree age, soil fertility, and soil compaction. Based upon these assessments we prescribe the appropriate Prescription Organic Matter<sup>®</sup> formula for enhancing root development.

### Young Tree Formula

- Delivers a sustainable level of nutrients that reduce the need for conventional fertilizers.
- Provides a long-term solution to soil compaction.
- Enhances tree establishment and long-term sustainable growth.

### Juvenile Tree Formula

- Enhances the availability of water and soil nutrients to the tree.
- Encourages chlorophyll production resulting in darker green foliage.
- Promotes root growth and improves tree canopy appearance.

### Mature Tree Formula

- Promotes fine root establishment and root absorption of water and nutrients.
- Increases the storage of sugars for energy.
- Helps maintains tree's active tissue versus the promotion of new growth.

