

To Fertilize or not Fertilize; the Final Word.

There is much controversy and disagreement regarding the application of tree fertilizers in the landscape. Trees located in the forest obtain their needed nutrients from naturally recycling forest litter such as rotting leaves, twigs, etc. However, for the average homeowner, leaves and twigs are removed from the landscape and turf grass is fertilized. As a result, there is no natural nutrient source and to make matters worse, the turf grass is competing for what little nutrients there are.

Fertilizing the turf is just not enough for the trees. If your trees are in a large, good quality mulch bed, you are closely mimicking what occurs on the forest floor. It has been proven from tissue sampling, that trees in a residential landscape that are not fertilized are in a low state of vigor, making them more susceptible to insects, disease, structural damage and in extreme cases, death. In addition, most landscape trees are trying to grow in soils that are highly compacted from construction, vehicle and pedestrian traffic and even large dogs, which over a period of a few years can compact the soil enough to starve the roots of oxygen. Therefore, an application of nutrients, mixed with water and injected under pressure into the soil around the tree is highly recommended. This will achieve a three-fold purpose; deep root watering, aeration, and fertilization.

A good fertilizer such as the ones used by Arbor Masters[®] will have the three primary nutrients in larger quantities, three secondary nutrients in smaller quantities, and at least one form of organic matter. The most important of the primary nutrients is **Nitrogen**, which is the most needed and most lacking in urban soils. Nitrogen breaks down with microbial activity over a 9 – 12 month period and won't leach from the soil. The secondary nutrient, **Phosphorus**, is a highly refined, low-salt source essential for energy transfer and the photosynthetic system within the tree's system. **Potassium** is the third nutrient which is also a highly refined "no salt" source needed for carbohydrate formation, photosynthesis, and protein synthesis. Potassium also increases water absorption and frost resistance. The secondary nutrients are **iron, copper, manganese and zinc**. These elements function mainly as a part of the enzyme system, essential for various energy transfers, assimilation and growth process within the plant.

A yearly application of these fertilizers in just the right amount will improve the vigor and color of the tree. These fertilizers are not designed to *push* growth but to *enable* growth and build up the tree's natural ability to resist attacks from insects, disease, and wind damage.