

Needham's Nursery

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FERTILIZING YOUR PLANTS

The trees and shrubs around your home are one of the most valuable and useful assets in your overall landscaping. They not only provide beauty and shade, but their presence can increase your property value by as much as 10-20%. It pays to take care of them properly! In our suburban neighborhoods, most trees and shrubs need to be kept healthy by properly fertilizing them. In nature, plants gain their nutrients from decomposing organic materials that have fallen to the ground. But due to the modern home building practices of today such as removing the established trees and plants, stripping away the rich native topsoil and not replacing it, and using heavy machinery to compact the remaining subsoil these nutrients are not readily available to new plant life. These plants being replanted in the modern neighborhoods need a source of minerals and nutrients, thus the need for fertilizer.

Contrary to popular belief, fertilizer is **NOT** plant food! Plants create their own natural food source through photosynthesis; the minerals and nutrients supplied by the fertilizer simply provide the necessary ingredients for plants to produce the natural sugars that plants use for food.

The three main ingredients contained within fertilizer are Nitrogen, Phosphorus, and Potassium. The amount of each in a bag of fertilizer is listed by a number on the bag listed in order the Nitrogen (N), Phosphorus (P), and Potassium (K) percentages. For example a bag of 12-6-6 fertilizer contains 12 parts Nitrogen, 6 parts Phosphorus, and 6 parts Potassium.

Nitrogen is a primary component of proteins and is a part of every living cell. Typically it is this nutrient that is responsible for increasing plant growth more than any other nutrient.

Phosphorus plays a major role in photosynthesis, respiration, energy transfer and storage, cell division and cell enlargement. It promotes growth, early root formation, and the production of flowers, fruits, and seeds.

Potassium is involved in many plant growth processes. It is vital for photosynthesis to occur and helps regulate water flow in plants. It also helps plants overcome drought stress, increases disease resistance and improves winter hardiness.

There are two primary methods of applying fertilizer to the plants in your landscape: Slow Release Complete Fertilizer and Water Soluble Fertilizer.

A Slow Release Complete Fertilizer should be used on the trees and plants in your yard. This type of fertilizer has a special coating on it that allows it to slowly release the nutrients into the soil where it is gradually absorbed by the plant. This type of fertilization lasts up to 90 days.

The other option is a Water Soluble Fertilizer. This type of fertilizer is dissolved into water and applied to the roots and leaves of your plants during watering. While fast acting, this type of fertilization requires regular applications to keep the nutrient levels up in your yard. Applications of a Water Soluble Fertilizer can last up to 2 weeks.

We recommend using a Slow Release Complete Fertilizer in your landscape.

How to Fertilize

When applying a granular slow release complete fertilizer, care should be taken to evenly spread the granules over the root system of the plant, keeping in mind that the root system can extend twice as wide as the branches extend from the trunk of the plant. Apply your fertilizer while the soil is dry, and then water your plant in well to activate the fertilizer. If there are any granules upon the foliage of the plant gently brush or wash it off. Also, be careful not to pile any fertilizer close to the trunk of the plant. Also, brush or wash away any fertilizer that may get on your sidewalk or driveway.

The first three years following planting, most trees and shrubs need 1-2 applications per year. The first comes in early spring, around March or April as plants start to push out new growth, and the second dose is in late fall to early winter thirty days after the first frost and the leaves have dropped from the deciduous plants (Around November 1st here in Middle Tennessee). Certain spring blooming plants do not need to be fertilized until after they have finished blooming such as azaleas, rhododendrons, dogwoods, tulip magnolias. Don't apply fertilizer from July to October in order to allow the plants to slow down their growth in order to prepare for the cold of winter. After a plant has been in the earth for three years or more, most only need an application of fertilizer once every 1-2 years in the spring. A soil test should be performed in order to really know how much and what kind of fertilizer you need to use. This will help you to determine what nutrients your plants need added to the soil. The pH is another important factor in fertilization. We have soil test kits that you can send in to the State of Tennessee or you can also pick one up at your local Agricultural Extension Office.

Without doing a soil test, a good rule to follow is to use a slow release 12-6-6 for most trees and shrubs. Certain plants like azaleas, rhododendrons, dogwoods, hydrangeas, pines, yews, junipers, cypresses, arborvitaes, hemlocks and others need an acidic fertilizer.

Approximate Amount of Slow Release Fertilizer to Use for Plants by Size

1 gal.	1 tablespoon
3 gal.	3 tablespoons
7 gal.	7 tablespoons
6-8' Tree	5 tablespoons
8-10' Tree	6 tablespoons
2" Caliper Tree	8 tablespoons
3" Caliper Tree	10 tablespoons