

Fertilizer Basics

- **Nitrogen (N)**, the first chemical listed, helps with plant growth above ground. Nitrogen does a great job of promoting the green leafy growth of foliage, and provides the necessary ingredients to produce lush green lawns. Lawn fertilizers will frequently have a high first number for this purpose.
- **Phosphorus (P)**, Not need for Florida turf fertilization program as our soils are generally more than adequate to high in this nutrient.
- **Potassium (K)**, the last number listed, is considered important for overall plant health. This is primarily due to its ability to help build strong cells within the plant tissue. In turn, the plants withstand various stresses, such as heat, cold, pests, and diseases. For example, winterizer fertilizers will have a high component of potassium.

Water Insoluble Nitrogen sources:

Have 50% of your nitrogen from one or a combination of these sources.

Methylene Urea, Sulfur-coated urea (SCU), IBDU, Ureaform (UF), Nitroform, or Polymer-, Plastic-, or Resin-coated urea.

Iron (Fe)

Use fertilizers that have chelated Iron (Fe).

From University of Florida Extension Office: “In the soil, plant roots can release exudates that contain natural chelates. The nonprotein amino acid, mugineic acid, is one such natural chelate produced by graminaceous (grassy) plants grown in low-iron stress conditions. The exuded chelate works as a vehicle, helping plants absorb nutrients in the root-solution-soil system (Lindsay 1974). A plant-excreted chelate forms a metal complex (i.e., a coordination compound) with a micronutrient ion in soil solution and approaches a root hair. In turn, the chelated micronutrient near the root hair releases the nutrient to the root hair. The chelate is then free and becomes ready to complex with another micronutrient ion in the adjacent soil solution, restarting the cycle. The process works like this:

A chelate is exuded from a root to the soil solution.

The chelate complexes a micronutrient (e.g., iron) from the soil solution.

The chelated micronutrient is carried to a root hair, where it is released.

The chelate goes back to the soil solution and starts another cycle.

Avoid any Fertilizer with Iron Oxide as Iron in that form is not readily available for the turf or plants to absorb and use.