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*Agri*LIFE **EXTENSION**

Texas A&M System

# Plant Nutrition

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# Plant Nutrition?

- Plants require nutrients to live and thrive. When one or more of these nutrients are deficient in the soil, a plant will not reach its full landscape potential, will be more susceptible to disease and insect problems, and will have a shorter life than a similar plant that did not get adequate nutrients.

# Nutrients

- The nutrients required by all plants, including trees, can be divided into two groups:
  - 1) macronutrients
  - 2) micronutrients
- Macronutrients are required by plants in larger quantities than micronutrients.

# Macronutrients

- The macronutrients required by plants for growth include nitrogen (N), phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), and sulfur (S).
- Addition of macronutrients, especially nitrogen, can result in improved growth while deficiencies can lead to slower growth and visible symptoms.

# Micronutrients

- Micronutrients, which are required in very small amounts, include:
  - iron (Fe), manganese (Mn), zinc (Zn), copper (Cu), boron (B), chlorine (Cl), and molybdenum (Mo).

# Fertilizers

- Both organic (naturally occurring) and inorganic (synthetic) fertilizers can be used to supply plant nutrients.
- Inorganic fertilizers are usually highly soluble and are more rapidly available to the plant than organic fertilizers.