

## FERTILIZERS

**FERTILIZATION** = Application of Fertilizers to Supplement Soil Nutrients

Goal - Meet Plant Needs Without Excess Nutrients

Will Not Compensate for Inadequate Soil Management or Cultural Care

If nutrients are not deficient, adding fertilizer will not make a difference in plant growth.

**FERTILIZER** = Soil Amendment That By Law Guarantees the Product's Minimum Percentages of:

N = Nitrogen

P = Phosphate (phosphorus)

K = Potash (potassium)

Uniform Labeling is in Percentages, such as 20-10-5

Percentages = Comparative Ratio (% 15-10-5 = 3-2-1 ratio)

### ORGANIC vs SYNTHETIC (manufactured)

Organic = made from natural sources (plant and animal)

Synthetic = manufactured through chemical processes

- ▶ Nutrients from either are the same to plants
- ▶ Difference = speed at which nutrients are available to plants

NITROGEN = - Nutrient needed in largest quantities by plants  
- One most often limiting plant growth and production  
- One most frequently applied as a fertilizer  
- One most beneficial to apply to Colorado soils  
    Phosphorus and potassium are generally adequate  
- Need based on soil's organic content

APPLICATION RATE - Amount of Fertilizer to Apply Depends On:

- ▶ Nutrient Needs of a Soil
- ▶ Amount of Organic Matter in Soil
- ▶ Percent of Nutrients in Fertilizer Product Used
  - Based on nitrogen content for products with multiple nutrients
- ▶ Type of Fertilizer Used
  - organic vs synthetic
  - water-soluble vs granular
  - rapid release vs timed-release
- ▶ Crop Being Grown - Plant Needs Vary
  
- ▶ Read the Product Package Carefully!