

South Portland Fertilizer Meeting Ad Hoc Working Group

The Why's

The What

The How

The Where and Where Not To
And the Most Important, The When

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A Couple Comments First

- ▶ It is a challenge to cover this topic in just a few slides
- ▶ This should just be viewed as a discussion starter. Will Touch a lot Bases that can be Developed Later
- ▶ Predominately will Speak to Nitrogen but not Exclusively
- ▶ Predominately will Speak to Turfgrass but not Exclusively

Why Fertilizer

- ▶ Rhetorical Question First, Who Fertilizers the Woods, Forests and Fields?
- ▶ Some Definitions First and a Benefits
- ▶ Turf - A Community of Herbaceous Plants that can be Mowed and Receive Foot Traffic
- ▶ Grass - A Grass Plant. Leaves, Crowns, Branching Structures and Roots
- ▶ Turfgrass - Includes the Grasses with the Soil and its Biology
- ▶ A Lawn is a place in the Landscape such as the Front Lawn
- ▶ Fibrous Roots Helps Filter Runoff and Grass Root Loss Helps to Sequester Carbon
- ▶ Establishing Vegetation/ Turfgrass Quickly Helps Prevents Erosion

1,000's and 1,000's Of Grass Plants Make Up a Turf

- ▶ We ask a lot out of a Turfgrass
- ▶ Turfgrass is very resilient
- ▶ Lots of Competition from Other Plants
- ▶ Varying Soils, Weather Extremes, and Performance Applications
- ▶ Street Trees and Plants in Urban and Suburban Environments
- ▶ They need help in obtaining Nutrients

The What

- ▶ Fertilizer is Not Plant Food
- ▶ Plants Needs Essential Nutrients in Balance to Grow
- ▶ Hydrogen, Carbon, Oxygen and Secondary Nutrients of Calcium, Magnesium and Sulfur and Micronutrients

Our Focus Today is:

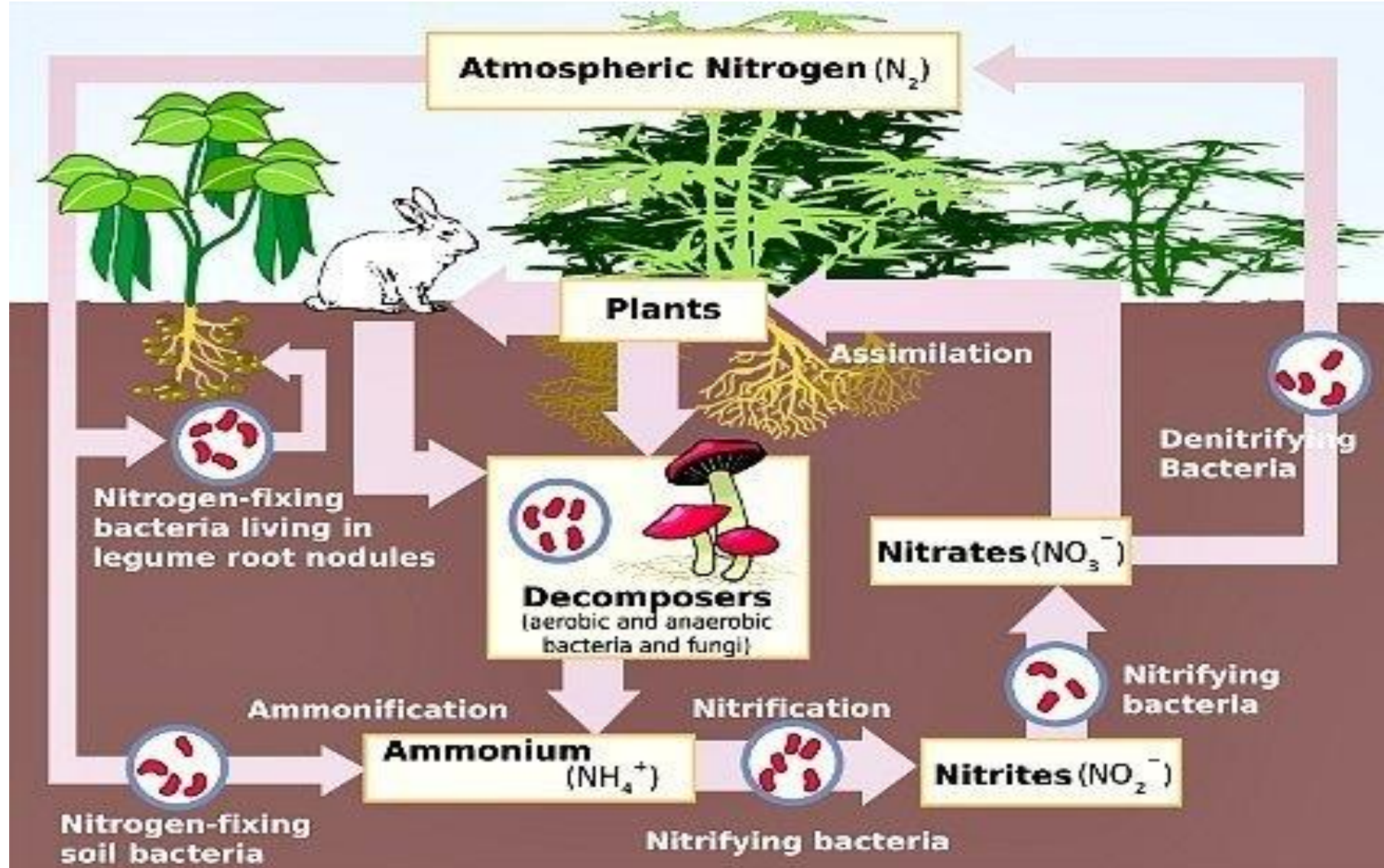
- ▶ N, Nitrogen Largest Nutrient Needed other than H,C,O
- ▶ P, Phosphorus
- ▶ K, Potassium

Fertilizer Bag

- ▶ Lots of Information On the Bag, This is true of Organics and Synthetics
- ▶ The three Nutrients are expressed as N P K in that order.
- ▶ The three numbers represent the guarantee analysis of the minimum percentage of the Nutrient
- ▶ 10- 2 - 4 analysis of a 50 lb bag
- ▶ 10% N in a 50lbs bag is 5 lbs of actual N
- ▶ The manufacturers recommended rate on the label delivers a 1lb Dose of Nitrogen per 1000 sq. ft.
- ▶ This bag will cover 5000 sq. ft.

Nitrogen

The Building Block



Nitrogen Sources

- ▶ WIN - Water Insoluble Nitrogen WSN - Water Soluble Nitrogen
- ▶ Organic, Derived from Plant and Animal Wastes and Byproducts. Very little Processing
- ▶ Synthetic Organic, Urea
- ▶ Natural, Organic Based
- ▶ Bio solids, Milorganite
- ▶ Mineral Fertilizer, Synthetic, Ammonium Sulfate and others
- ▶ Enhanced Efficiency Fertilizers (EEF), Nutralene, XCU, IDBU, Resin Coated and others.
- ▶ Bridge Products, Includes Both Synthetic, Organic and Natural

The How

- ▶ Granular and Liquid
- ▶ Broadcast and Drop Spreaders
- ▶ Calibration
- ▶ An Operator

The Where and Where Not to

- ▶ At Establishment Time Fertilizer Should be Incorporated into the Soil
- ▶ Leave a Buffer zone of 25' of untreated grass or other vegetation around water bodies
- ▶ Do Not Apply on Standing Water
- ▶ Avoid Steep Slopes
- ▶ Sweep up Fertilizer prills that Land on Impervious Surfaces

And The All Important When

Reduce Denitrification

- ▶ Fertilizer Turfgrass when the soil is Dry to Moist and lightly water in
- ▶ Do not Fertilizer when heavy rain is predicted
- ▶ Do not Fertilizer on Frozen Ground or Saturated with Water

Reduce Leaching Losses

- ▶ Do Not Fertilizer when Heavy Rain is Predicated
- ▶ Use Organic Fertilizers and/or WIN, Slow Release Fertilizers

Reduce Ammonia Evaporation

- ▶ Do Not Fertilizer on Hot Days

Reduce Harvest Loss

- ▶ Return Grass Clippings
- ▶ Compost/ Mulch Fallen Leaves When Possible