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
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 Predicted
- 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