



Feeding the Soil

Construction of Resilient Systems

Presented by

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Soil Amendments

- Fuel for soil biology
- Source of macro nutrients
- Source for trace minerals
- Long term benefits
- Ability to push biology in right direction
- Addition of organic matter & minerals
- Reduce or eliminate synthesized materials



Plant Based Amendments

- Alfalfa Meal
- Amino Acids
- Cotton Seed Meal
- Kelp Meal
- Molasses (Unsulphured)
- Peanut Meal
- Seaweed Powder



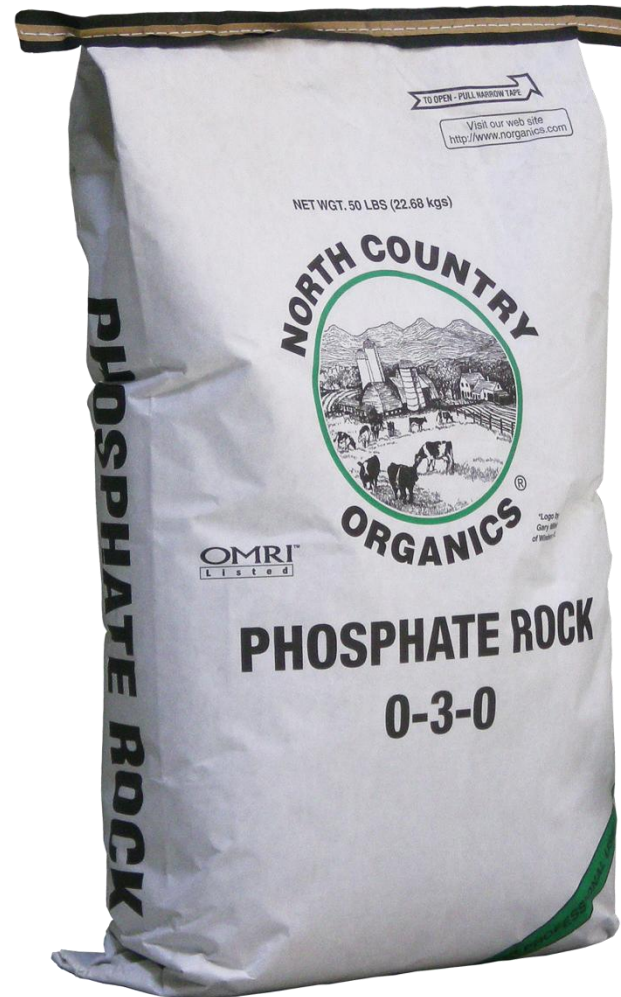
Animal Based Amendments

- Blood Meal
- Bone Char
- Bone Meal
- Crab/Lobster Shell Meal
- Feather Meal
- Fish Hydrolysate & Emulsion
- Poultry Litter



Mineral Amendments

- Aragonite
- Azomite
- Green Sand
- Chilean Nitrate
- Gypsum
- Humates
- Phosphate Rock
- Soluble Humates
- Sulfate of Potash (SOP)
- Sulfur





The perfect time to add amendments is.....



Water Soluble Amendments

- Generally available immediately
- Dissolves or suspends in water
- Easy to handle
- Less money to ship
- Less labor to apply
- More expensive
- You will need a sprayer
- Profitable to apply

Solu-Nitrogentm 15-0-0
Amino Acid Powder
100% Plant Based Water Soluble Nitrogen

Solu-Kelptm 0-0-15
Soluble Seaweed Powder

Guaranteed Minimum Analysis	
Soluble Potash (K ₂ O)	15%

OMRI[®] Listed

Solu-Matetm
100% Soluble Humic Acid Powder

Trace Elements

- **Boron**-Move sugars from cell to cell, control starches stimulates cell division
- **Cobalt**-Needed for nitrogen fixation; helps form vitamin B12
- **Copper**-Activates Enzymes, stimulates stem development and color formation
- **Magnesium**-Chlorophyll creation; helps regulate the uptake of other minerals, also activates certain enzymes
- **Iron**-Used to produce chlorophyll and helps create energy for the plant
- **Molybdenum**-Needed for nitrogen fixation and use in the plant; Amino acid creation
- **Zinc**- Enzyme production; stem growth; flower formation

Solubility.....

- All of the trace minerals listed above are water soluble
- Compatible with most other amendments
 - Fish Hydrolysate
 - Seaweed Extracts
 - Liquid Compost Extracts
 - Compost Tea
 - Nematodes
 - Mycorrhizae
 - Amino Acids
 - Humic Acid
 - Fulvic Acid

20 MULE TEAM
Solubor®

Soluble borate powder for crop nutrient sprays and solutions



Predatory Nematodes....

- Two hybrid strains
- Parasitic to many grub species
 - Japanese beetle
 - Chafer
 - Black Vine Weevil
 - Chinch Bugs
 - Many more....
- Not winter hardy in North East
- OMRI Listed
- Compatible with other materials
- Effective if timing of application is managed



Mycorrhizae

- Beneficial fungi that associate with plant roots
- Aid in uptake of water & nutrients for 95% of all plants
- Spores must be in contact with soil
- Soil drench for planting
- Soil injection for established plants





Sprayers











Tools in the Toolbox

- What do we have at our disposal?
- Compost Tea
 - Soil drench/injection
 - Foliar applications
- Liquid Compost Extracts
- Compost top dressing
- Organic Fertilization
- Biological food resources
- Cultural practices
- Soil Amendments
- Trace Minerals



Thank You!



Feel free to contact us if you have any questions.

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