What is Soil?

Soil is the base of all growing. In addition to sustaining plant and animal life, soil filters out pollutants, cycles nutrients, and regulates water. In this pamphlet, we will teach you various techniques to keeping your soil healthy and thriving throughout the year.

Key Words

Erosion: The process of wearing down due to wind, water, or other natural occurrences.

Liming: Treating soil with calcium and magnesium rich materials such as lime or chalk to reduce acidity.

Microbes: microscopic organisms, such as bacteria and fungi, that feed off organic matter and release nutrients into the soil.

Nutrient Cycle: The movement and exchange of organic and inorganic matter back into the production of living matter.

USDA: United States Department of Agriculture.

Why Soil Health is Important

Protecting your soil has many short and long term benefits that make your life easier.

Healthy soil is more porous than unhealthy soil, meaning it requires less watering.

You won't need to weed as much, as weeds cannot grow as well in healthy soil.

Healthy soil produces higher crop yields, without the need for harmful chemical fertilizers.

Keeping your soil healthy is a great way to be sustainable. You won't need to depend on excess resources, and you'll produce more organic foods for your friends and family.

For more soil health information:



USDA's Guide to Community Gardening http://bit.ly/2pKdJgS



Digging Deeper into Soil Care http://bit.ly/2Aun5Fz

The Roots of Soil Care



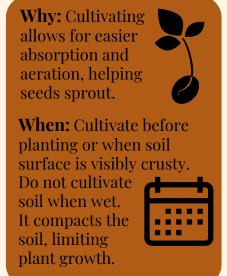
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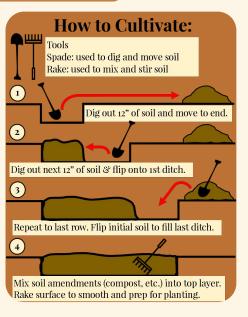




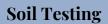
Just Getting Started?

Cultivation: Preparing land for gardening.





How's Your Soil Doing?



Why: Results give recommendations on fertilizers and liming.

When: During harvest every 2-3 vears for nutrient info on your soil.

See soil test flyer for more info.

What is pH?

Measure of acidity/alkalinity of soil.

Alkaline **Acidic Highly Alkaline** Neutral 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 Nutrient deficiencies. Nutrient toxicities (CO₂², HCO₃, deficiencies &

Ideal pH toxicities (Fe. Mn. AI) **APPLY LIME**

AIO,) & sodicity **CONSIDER TOLERANT** SPECIES (i.e. LEGUMES) & **APPLY GYPSUM**

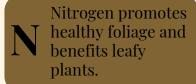
Most plants grow at the ideal pH of 6-7.5. However, some plants prefer slightly acidic or slightly alkaline soil.



What's in Your Soil?

Microbes play an important role maintaining soil health. They increase soil fertility and water retention. decrease soil erosion, and help protect plants from disease. Here's how to increase microbial activity in your garden:





Phosphorus aids in healthy root growth, flowering & fruiting.

Potassium betters K plant development, growth & disease resistance.

Did Somebody Say Soil Protection?

Cover Cropping: Growing different types of plants in the off-season of growing. What to Grow: Rye Grass, Hairy Vetch, Buckwheat, Radish.

Compost: Recycled material that adds organic matter to soil. Can be applied either two weeks before planting season or after the final harvest.

Benefits of Cover Cropping and Composting

Erosion & Runoff Reduction









Nutrient Cycling

Fertile Soil