Soil Health/Fertility through Regenerative Cultivation and Aquatic Ecosystems





Image courtesy of USDA Natural Resources Conservation Service http://soils.usda.gov/sqi/soil_quality/soil_biology/soil_food_web.html.

What is this and why would we want it in farming? Soil biology for plant health. Predatory insects to prevent insect infestations. Fungals networks to out compete fungal pathogens. Biomimicry means less inorganic inputs and work.



Regenerative approaches

No tilling. Companion planting. Ground cover plants. Raw organic inputs. Intensive/rotational grazing. Composting top dressing/teas.



The benefits of aquaculture on a microbial scale. Planting the edge for increased water quality. Adding aeration for higher DO and increased biomass. Using this water for irrigation needs.

How does this work

It's all about the Kingdoms of life that lead to all life forms (these are changing based on the advance of our knowledge).

Bacterial

Fungal

Protozoan

Plant

Animal



Decomposers of raw material.

Directly related to overall plant health.

Aerobic versus anaerobic.



Mycorrhizal network and colonization exchanging nutrients and water to the plants.

Saprophytic decomposers releasing organic acids to help with soil structure and feeds soil food web.



Nutrient cyclers.

Anaerobic and aerobic.



Diatoms what are they and what do they do?

Biostimulant or Bioinoculant?



Mother natures compost tea machine.

Soil fertility and human settlements.

The law of returns.



Not all compost is created equally. (Thermophilic, Airomatic, Static or Bio pile).

Manure based versus Plant based.

Compost tea brewing.

Compost tea brewer Images.....

Not Available

Square bottom.

Cone bottom.

Costs to buy verus make it.

Resources



Daniel Chamovitz WHAT A PLANT PLANT KNOWS



Peter Tompkins and Christopher Bird

One Strange Rock TV Jeff Lowenfels, Teaming with Microbes Teaming with Fungi Teaming with Nutrients

Symphony of the Soil DVD

Paul Stamets Ted Talk; "6 ways the mushroom can save the world"

Contact information



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