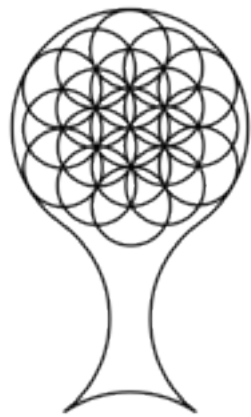


Soil Foundation

use natural farming inputs to
create a naturally fertile environment



drake @
naturalfarminghawaii.net



Soil Foundation

- Natural Farming Recipe
- Method
- Theory of Soil Foundation
- Rational for Components
- Insights & Examples



Recipe

For an area 100 Square Feet

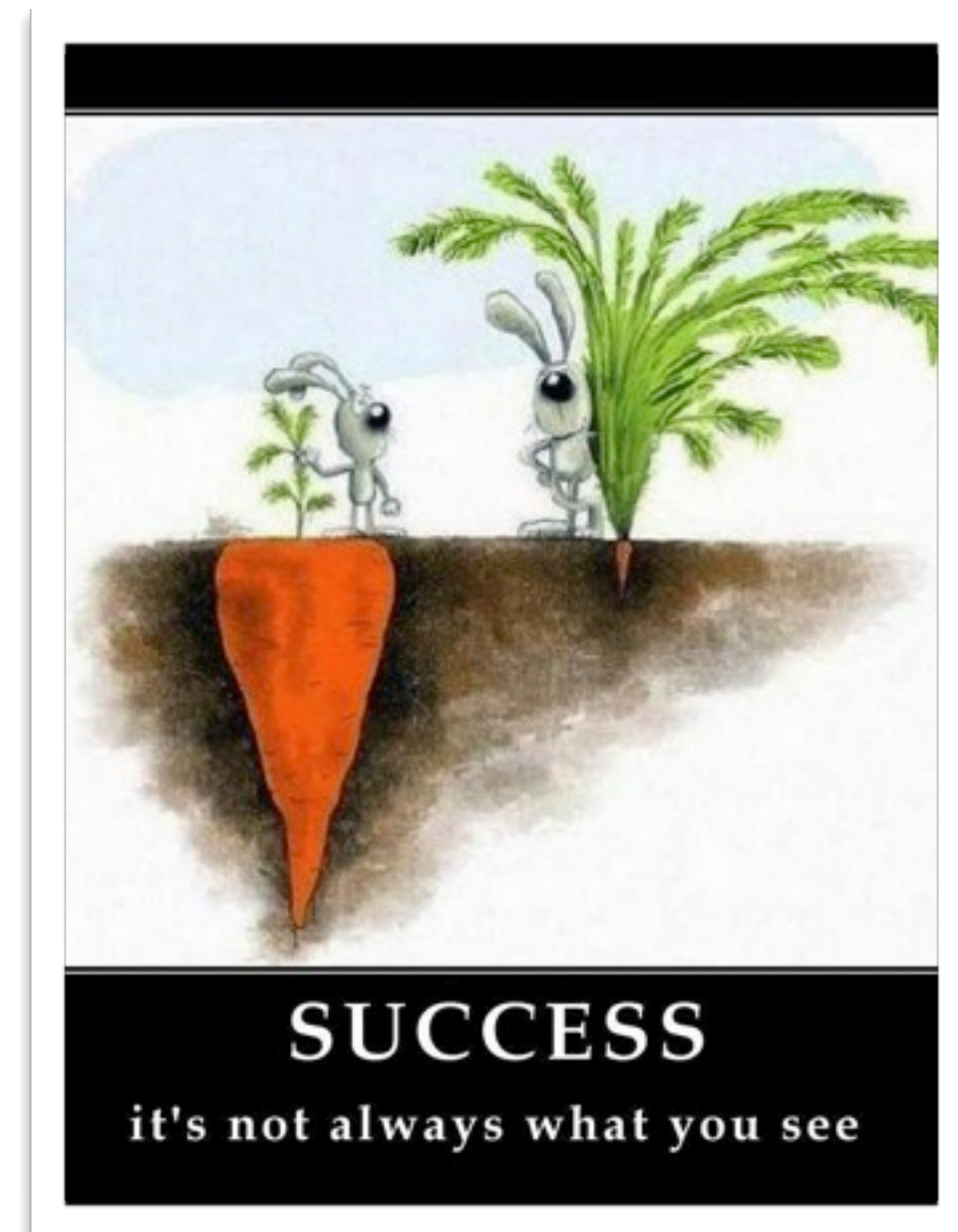
- 5 lb of IMO#4
- 2~5 lb bio-char
- 15 gal oxygenated water
- 4 gal natural water
- 2 oz Fermented Plant Juice
- 1 oz Oriental Herbal Nutrient
- 1 oz Fish Amino Acid
- 1 oz Brown Rice Vinegar
- 1 oz Lactic Acid Bacteria
- 20 oz sea water

Natural Farming Method

- Week 1
 - Spread IMO#4 mixed with biochar
 - Water 4 gal mixture “to cover” IMO
 - Water 15 gal of oxygenated water
- Week 2
 - Repeat 4 gal and 15 gal mixtures
- Week 3
 - Repeat 4 gal and 15 gal mixtures
- Week 4
 - Repeat 4 gal and 15 gal mixtures
- End of Week 4
 - Sow seeds or transplants
 - Water with remaining soak solution
 - Do not irrigate for first 11 days

Theory of Soil Foundation

- Promote root growth
- Roots grow on oxygen
- Support beneficial (aerobic) Microorganisms
- Release “fertilizer” on demand
- “Hard start” prepares plant for life
- More nutrition as plant seeks further



Theory of Soil Foundation

- Less weeding; more beneficial “weeds”
- Think of soil as an energy field
- Chemical, biological lenses may be myopic
- Energy is grand unifying principle of universe
- You are a knight; Microbes do farming



Rational for Components

- IMO #4 & BioChar
- Fermented Plant Juice
- Oriental Herbal Nutrient
- Fish Amino Acid
- Lactic Acid Bacteria
- Brown Rice Vinegar
- Ocean Water & Oxygenated Water



IMO#4

- Provides “advanced” workers to the soil to assemble present nutrients in plant assimilative form
- Positively energizes soil energy field
- Virtually stretches roots millions of miles
- Suppresses bad nematodes and ciliates
- Balance fungal and bacterial to prevent weeds
- Enhances soil immune system with micro-diversity



BioChar

- Housing and Storage for microbes
- Acts as a battery to the soil energy field
- Enables microbes to store toxins and prevent plant uptake
- Activates the natural moisture cycle to eliminate irrigation
- Lets plants grow to their full potential



Fermented Plant Juice

- Provides food to microbes
- Raises energy level of soil to enable higher plant forms to take root
- Hormones and enzymes activate microbes to optimize for growth
- Complete fertilizer mimics nature of fruit and plants rotting on the ground



Oriental Herbal Nutrient

- Provides medicine for the microbes
- Stimulates Aerobic microbial growth
- Suppresses Anaerobic microbial growth
- Helps maintain vigor in the system



Fish Amino Acid

- Provides replication and building material
- Amino acids are the building blocks of life
- Nitrogenous forms very close to nature
- Very potent activator of life



Lactic Acid Bacteria

- Provides emergency workers and welcoming crew
- Aerobic and Anaerobic behavior enables depth penetrating ability to prepare soil for more sensitive microbes
- Help to balance soil energy field and restore homeostasis
- Friendly with other microbes; can dominate if over applied



Brown Rice Vinegar

- Provides the key to unlocking “stuck” nutrients
- Flips energy field from acidic (negative) to alkaline (positive) upon metabolization
- Frees up environment for change
 - Old can be used properly
 - New is given a space to accumulate



Ocean Water

- Provides trace nutrients to land environment
- Heals with ying yan energy balance
- Restores damaged land over-saturated with chemicals



Oxygenated Water

- Provides oxygen to roots and transmits nutrients to plant
- Higher state of energy than normal water
- Can carry nutrients in colloid suspension
- Breaks down rock nutrients
- Ground water 0%; rain 8%; BMW 16%



General Insight

- The soil foundation is the most important part of natural farming, so take your time and **do it right**
- Wood makes a great soil substrate/additive; encourages fungal activity
- Only 4% of the plant's composition comes from the soil
- 99% of the plant's immune system is determined by the soil



Insights from Gil Carandang

- Where there is food, there will be life;
Where there is low stress, there will be good life;
When stress rises the good life becomes the food
- There are many ways to get the “same” end result; The path seems to determine the quality of the journey, not necessarily the destination
- Farmers must feel knowingly confident in using the materials abundant in a given situation to get to at least one acceptable destination



Insights from Leon Ridzon

- Understanding carbon is fundamental to farming
- Carbon's ability to filter the soil is a necessary component of clean nutritious **full potential food** that gives rise to advanced life forms
- Toxin is defined as anything present in the environment in greater quantities than necessary to facilitate the production of life
- Processing toxins burns up the good carbon in the soil; lowers the overall carbon "battery" life runs on

Insights from “Bread from Stones”

- Rock minerals build healthy strong farmers; Manure builds lazy sickly plants and the farmers and animals that eat them are weak
- Chemical fertilizer and manure acts as toxins if added directly to soil
- Never see heaps of manure in nature. Always small events. Grazers will move on to mitigate exposure to pathogens, worms and disease.
- Process with worms or compost before introducing to the soil

Insights from Elaine Ingham

- Beneficial microorganisms tend to be aerobic
- Bacteria to Fungus ratio is very important in determining which plants naturally want to grow in soil
- Plants feed microbes something very similar to bread in exchange for nutrients, making mill run ideal for propagating beneficial microbes
- Anaerobes produce alcohol which attracts bad guys like ciliates
- Just-in-time solubilization of minerals for plant uptake near root zone



6 Month Soil Recovery



Korean Natural Farming Setting



Korean Natural Farming Setting

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More Information

- Soil Foundation Workshop with Let's Grow Hilo on February 15th 2012
4:30pm in front of Kress building
- NaturalFarmingHawaii.net
- Spend fifteen minutes with nature
- Questions?

