



Welcome to Ground Work

Building Soil Fertility – Naturally

12/14/12

After your crops are harvested, what can be done to renew and build your soils? Certain crops have high nutrient demands and may decrease soil fertility over time unless you incorporate practices which restore health and energy back to your soils.

The key to soil restoration is biology.

- If you have good biological activity and diversity, your soils will be able to sustainably handle wise agricultural practices.
- Soil biology, along with balanced fertility, good crop residue management, cover crops, crop rotations, and amendments that build carbon and soil organic matter are factors which affect soil health and productivity.

Planting cover crops can be very beneficial to your soils.

- The longer you have plants growing in your soil each year, the better it is for both the soil and its microbial inhabitants.
- There are many different types of cover crops (e.g., legumes, grasses, small grains, non-legume broadleaves, winter cereals, etc.). Some commonly

used varieties include: annual ryegrass, barley, forage radish, rye, wheat, sudangrass, red clover, hairy vetch, field peas, triticale, and buckwheat.

- Some of these cover crops capture nitrogen and other nutrients in the soil and prevent them from leaching. These nutrients are stored in the cover crops and then released once the plants are decomposed by soil microbes.
- Besides nutrient conservation, cover crops inhibit weed growth, decrease soil erosion, add organic matter and carbon to the soil, improve soil structure/soil tilth, and stimulate soil biology.

Inoculating your soil with beneficial microbes and stimulating existing microbes with food sources are surefire ways to encourage soil restoration.

- Soils with abundant microbes and lots of diversity are often resilient and receptive to soil restoration methods and sustainable farming practices.
- Microbes cycle nutrients, decompose crop residues, use soil organic matter to build soil structure, break down chemicals in the soil, and compete with organisms that cause disease in some plants. Beneficial microbes perform numerous services and functions that are essential for healthy soils and crop production.
- The goal is to have robust and diverse populations of microbes in your fields, cycling nutrients and building your soil.