

Specific Tips for Improving Soil and Environmental Health

Last time we looked at general principles and general techniques about soil and environmental healing and soil rejuvenation.

This time I would like to give you a specific suggestion for getting land ready for growing food crops, herbs and flowers, fruit trees and soft fruit in a communal garden environment.

Traditional Cover Crops and Green Manures

When small scale farmers, homesteaders and medieval farmers realised that vetch field beans and grains sown together would improve the soil structure and fertility and would also double or treble the yields of their grain crops they started replacing the fields they left fallow with weeds and kept ploughing in the old crop residues and weed plants and sowed the above with great success.

As they also had farm animals of a great variety they were able to graze the cover crop they had sown, animals adding the special qualities of their different manures.

Once the field was grazed fully they would then plough in the residues and grow phenomenal crops while improving the soils every year from then onwards.

Special Green Manure Mix

If you have a smaller space and can afford the expense of buying a great variety of green manure seeds you can heal your soils while enhancing the biodiversity in insects and birds through your special green manuring mix.

This week on Wednesday 22. and Thursday 23. April were ideal dates for sowing all bare soil in your garden with a green manure mix that doesn't just heal the soil but also nourishes a great diversity of insects and birds and will delight your soul and aesthetics in the garden. Though, it's never too late to sow even now, except you will have to irrigate your sowing as we have entered already into drought conditions again.

Improve your fertility, structure, drainage and water-holding capacity of your soil, while feeding a multitude of micro- and macro-organisms in your soil.

Fertility

This is greatly enhanced by legume green manure plants like Bird's Foot Trefoil, Crimson Clover, Sweet Clover, Vetch and Serradella, which are all sown for short term benefits. Work into topsoil when first flowers are showing up. That means they have accumulated the most nitrogen in the topsoil.

If you have a field which could be set aside for 2-3 years it is worthwhile investing in sowing Alfalfa (Lucerne) and Red Clover as they are most effective fixing nitrogen in their 2nd and 3rd Year. This approach would 5x your nitrogen accumulation in the soils.



Structure

To deepen your soils and improve the structure and humus formation in your topsoil

Use Agricultural chicory, Crimson Clover, Sweet Clover and grains like oats, rye or Hungarian/Italian rye together. If they are worked in when flowering starts you improve at the same time also fertility.

If you leave them longer, they will feed your insects and birds with nectar, pollen and seeds.

Retrieving Phosphorous and Potassium from deeper layers

Buckwheat, Phacelia, Serradella and Agricultural Chicory retrieve washed out (leached) nutrients from the subsoil and provide better drainage and water absorption and water holding capacity.

At the same time, they are providing flowers all summer and autumn for bees, wild bees, predator wasps, hoverflies, butterflies and seeds for birds.

Weed seed germination

Oh, and the best part is that shading the soil stops weeds from growing this year and using certain plants like Sunflower and Sweet Clover inhibits weed seed germination in the following year.

So, your weed seed load of the soil gets reduced drastically.

In Summary Use:

Agricultural Chicory, Bird's Foot Trefoil, Buckwheat, Crimson Clover, Phacelia, Sunflower, Sweet Clover, Vetch, Mustard, Italian Ryegrass and Black Oats and Serradella.

For sowing rates and other details see the excel doc attached in the post.

Enjoy your feast for the soil and for the creepy crawlies and not the least the feast for your eyes.

Application of Valerian Preparation

As you have seen with the extreme of weather I highly recommend these next few days to do some preventative frost spraying with the valerian preparation and help plants to resist the extreme light and heat impulse with high U.V. Index.

To protect plants from those extremes, stir 5-10 drops of valerian preparation for 10-15 minutes in vortex fashion into 5 litres of rain water and spray the next few evenings, particularly Friday 23. April onwards in a fine mist over your plants outdoors and in protected environments, and in particularly your flowering soft fruit and top fruit.

Happy green manuring,

Hans-Gunther

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