GOLD NUGGET

Unlock The Secrets In The Soil

There is an extraordinary soil health revolution taking place in North America. This farmer-led movement is receiving increasing attention and support from the United States Department of Agriculture (USDA), particularly the Natural Resource Conservation Service (NRCS). NRCS publish an annual Soil Planner, with the running title 'Unlock the Secrets in the Soil'.

Multi-species covers and companion crops are taking the U.S by storm. Innovative farmers are experimenting with up to 70 plant species to see which combinations work best. Some U.S. farmers are setting aside up to 25% of their cash crop area for cover crops. They believe the benefits far outweigh the costs. It has been reported that two full seasons of a multi-species cover can perform 'miracles' in terms of soil health. **'The Benefits of Promoting Soil Health in Agriculture and Rural America'** was the topic of recent hearing of the United States House of Representatives Subcommittee on Conservation, Energy and Forestry (Committee on Agriculture).

A farmer's perspective Pennsylvania farmer:

Jim Harbach has been using multi-species cover crops with highly beneficial results. Jim's testimony to the Subcommittee *'…I am very fortunate to have been part of agriculture for more than 40 years. I have witnessed the transition from conventionally plowed ground to no-till. Some of our fields have not been plowed for 40 years. We have seen first-hand the transformation of our soils, and the positive results when you farm in Nature's image. In the last decade, with the addition of cover crops, and the belief that plants feed the soil, instead of soil feeding the plants, we have seen incredible results. Some examples include organic matter increases of one percent in 3 years, and steady state infiltration rates that average 4 inches per hour [11.5 cm/hr]. I am not an organic farmer, although we no longer use insecticide or fungicides, and only a fraction of the herbicides and fertilizers that we once applied. I used to be part of the group of traditional thinking farmers.*

Agriculture today is farming a degraded resource, and has accepted this as normal. Despite our best efforts, our soils have lost the ability to effectively absorb rainwater, are void of biological life, and are depleted of nutrients. Our soils are so degraded that we must rely on industrial inputs to keep our farmlands productive. We now have a broken water cycle as a result of a broken carbon cycle. The loss of soil organic matter has contributed to carbon dioxide levels in the atmosphere because we have robbed the soil of its carbon. Soil organic matter has many functions, water infiltration, water-holding capacity, groundwater recharge, and its ability to cycle and store nitrogen, along with other nutrients.

…what we need is a mammoth soil health education campaign to teach farmers, Federal and State agencies, regulators, universities, children and the general public. Farmers need to understand how the soil functions before they will value it as a resource.'

You can read and listen to Jim's full testimony through references. 2,3,4

As well as diverse covers, it is becoming increasingly common to see cash crops grown with 'companions'. Peas with canola, sub-clover with wheat, soybean and/or vetch with corn, buckwheat and peas with potatoes.

On Menoken Farm, North Dakota, a mix of hairy vetch, berseem clover, dill, canola, phacelia, flax, buckwheat, sub-cover, turnip, radish, field pea, soybean and cowpeas grown as a flowering understorey with sunflowers attracts predatory insects, bypassing the need for insecticide.

Soil Lovers say: ***Regeneration Is Achieved By Growing A Biodiverse Range Of Plants***