



Welcome to Ground Work

Healthy Soil, Healthy Plants, Healthy People

4/30/2012

Mike Wyatt ran across an interesting article in the March 2011 issue of Discover Magazine. It was written by Michael Tennesen and titled "***The Ecosystem Inside***". The article pointed out several similarities between human health and healthy soils and plants. We would like to share some excerpts from the article, along with some of our observations.

... neonatologist Susan LaTuga ... is one of several medical researchers ... working with microbial ecologists to study the development of the human microbiome – the enormous population of microbes, including bacteria, fungi and viruses, that live in the human body, predominantly in the gut. There are 20 times as many of these microbes as there are cells in the body, up to 200 trillion in an adult, and each of us hosts at least 1,000 different species. Seen thru the prism of the microbiome, a person is ... made up of diverse ecosystems ... essential to our well-being. "Our hope is that if we can understand the normal microbial communities of healthy babies, then we can manipulate unhealthy ones," LaTuga says.

The ... study is just one of many ... to explore how the diversity of the microbiome impacts our health. ... Although these groups have only just begun to publish their findings, it is already clear that the microbiome is much more complex and ... critical to human health than anyone suspected. Understanding and controlling the diversity of our germs, as opposed to assaulting them with antibiotics, could

be the key to ... future medical treatments.

Like a lush rain forest, a healthy microbiome in the human gut is a diverse ecosystem that thrives only when all the interdependent species are healthy too.

*-From "**The Ecosystem Inside**" by Michael Tennesen
Discover Magazine, March 2011, pp. 35-39*

This sounds like the information we heard from Dr. Jerzy Nowak at our 2007 Winter Seminar in regards to the microbial populations that should be present in healthy plants. Dr. Nowak said a healthy potato tuber should contain more cells from bacteria than actual potato cells. There is a microbial world within us and plants that can be managed.

It is our understanding that when we apply chemicals in our cropping systems that we destroy some of the interdependent species. Damage from these pesticide applications can be mitigated by inoculating the soil with products such as **SP-1™**, **Myco Seed Treat™** and **Residue™**. The inoculating process for the plant should start with seed treatments present at germination, followed by the seedling emerging through soil that contains a high population of beneficial organisms. Additional applications of microbiology should be made when applying crop nutrients during the growing season.

It is unfortunate that most people, even researchers, link disease with the presence of microbes. The conventional method is to use antibiotics and pesticides to kill the disease-causing organism. The problem is the interdependent species are killed as well. Our method is to measure the state of health by the diversity and quantity of interdependent beneficial organisms. As many have accepted the use of probiotics in livestock the shift is beginning, as demonstrated by more products surfacing in farm journals and magazines for plants and soils.

When I evaluate a specific practice in our farming operation, that practice must be profitable and it must be practical if it is to be implemented. I also know that practice must contribute to the integrity, the beauty, and the harmony of the bionic community. If it does not, it is wrong for me to implement.

*-David A. Larson, Founder
AgriEnergy Resources
1988*