

Soil & Moisture Holding.

Many of us hold soil in our hands and feel a solid substance, however, the fact is that 50% of the volume of soil is open space.

You can do this experiment to gain a better understanding of this space. Take a known volume of soil, fill up a container with it. Add water until it completely fills up. This soil is now saturated. The micro & macro pore spaces are now full.

Next drain the water from the soil. You will note the soil remains moist. We call this field capacity! This is the volume of soil that will hold moisture, also known as micro pore space.

Generally, soil is made up of 47% mineral, 3 % organic matter, 25% macro pore space, 25% micro pore space. Macro pore space is defined as that space where the hydraulic action of water will move through the soil profile. Micro pore space is defined as that portion of space where a thin film of water will remain. The physical characteristics of the macro pore space is very difficult to change, the dirt is the dirt so to speak. Micro pore space on the other hand can be amended very effectively with calcium & soluble carbon nutrition.

Micro pore space is important to plants due to the fact that feeder roots occupy the space along with beneficial plant growth promoting micro flora & fauna. Soluble nutrients & carbon are also found in the micro pore space

Identifying the opportunities to make these nutrient amendments is a challenge. You must understand the relationships with water/air, calcium, magnesium, sodium and so on. Once you have a comprehensive soil audit, we can solve some of these problems with effective management of the solution chemistry.

Utilizing PeneCal & H-85 we can improve the quantity & quality of your micro pore space to give the soil bacteria & plants roots a clear observable advantage.

Call me to find out more about this process.

Eric Massey,
Redox Ag
Agronomist
616-745-0821