



Bio-Farming Vocabulary – Soil Structure

5/31/2017

Last time we talked about how soil needs air to survive, much like us. This week we're going to discuss how soil is structured ...

Soil Structure: The combination of primary soil particles, sand, silt, and clay into naturally occurring secondary particles called peds. These peds are described by their shape, size, and their grade (how tightly they stick together). A soil's structure isn't fixed, therefore compaction or flooding can transform a blocky structure to a platy structure. Excess sodium and potassium can cause structures to deteriorate, seal over, and decrease water, air, and root movement.

Tilth: Tilth is the physical condition of soil as related to its ease of tillage, quality of seedbed, impedance to seedling emergence, and root penetration. Healthy, well managed soils nearly always have good tilth, due to an active microbiology.

Friable: Healthy soil is typically friable, or in other words, easily crumbled.

Aggregation: Refers to soil particles that have been bound together by organic carbon. As roots grow, they roll soil particles in their wake, and at the same time, exude polysaccharides and mucilage, feeding biology. This process glues together the rolled up particles. Good aggregation, which is sometimes called a coffee ground structure, is a sure sign of good fertility.

Flocculation: The process by which clay and humus particles chemically merge into larger particles. This keeps the clays from going into solution but doesn't prevent the nutrients adsorbed on the clays from entering the soil solution. The opposite of flocculated is dispersed, which is usually assumed by excess potassium and/or sodium.

Next week we'll discuss what happens to soil structure when there's no air! In the meantime, contact your **AgriEnergy rep** at **815-872-1190** to learn which of our products can help improve soil structure!