

### High pH Soils –Can They Be Lowered?

**Most of the time here in northeast Kansas, we're more worried about raising pH than lowering it. There are times, however, when multiple liming applications have raised pH significantly or a specific crop (blueberries come to mind...) needs a lower pH. The pH lowering process becomes very important at that point. Start with a soil test. It's the only way you'll know where you are starting so you can figure out how to get to where you need to. Samples should be pulled to a six to eight-inch depth to get a good cross section of the pH in the root zone. When sampling, mix 15-20 cores together for most accurate results. An understanding of your soil type is important as well. Sulfur is the product we apply to lower pH. Sandier soils require less sulfur to lower pH levels than loamy soils do. How does sulfur work? Without getting too complicated, the application of elemental sulfur goes through a chemical process that acidifies the soil and lowers pH. This oxidation process relies on microbial activity, the speed of which depends on a number of factors. A temperature of 75-104 degrees is optimum, meaning cooler winter temperatures will slow the process. Soils too wet or too dry will also slow it. Even the size of the sulfur particles (smaller is better) makes a difference. With that in mind, it typically takes at least two years for most the sulfur to react and form sulfuric acid. What's all that mean? In short, plan ahead to correct high pH soils. In some cases, that may mean delaying planting of crops like blueberries, or finding different ways to correct issues like iron chlorosis (high pH's can make iron unavailable resulting in iron chlorosis as evidenced by light green leaves with darker green veins. Iron chlorosis reduces the health of plants by reducing photosynthesis.) while pH is dropping. For more information on soil testing, contact a District Office for details.**