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Liming Acid Soils

Fall is a great time for soil testing – providing we get some moisture to allow us to get a soil probe in the ground. While much of our focus centers on nitrogen, phosphorous, and potassium, don't overlook the soil pH number that's a part of most soil test analyses.

A soil test pH value is only going to tell part of the story, with measurement for buffer pH critical to determining the needed lime application level. Soils with higher clay contents and organic matter levels will have greater acidity at a given pH, and will require more lime/ECC (effective calcium carbonate) to reach a target pH than a sandy soil. This is why two soils may have the same soil pH but have different lime requirements.

Lime rates are given in pounds of effective calcium carbonate (ECC) per acre, so knowing the ECC value of your liming material (they vary widely) is key to applying an appropriate rate. All lime materials sold in Kansas must guarantee their ECC content, with measurements such as the chemical neutralizing value of the lime material relative to pure calcium carbonate, and the fineness of crushing, or particle size, of the product factoring in to the product's ability to correct soil pH. The combination of ECC level needed to correct pH as well as a product's ECC analysis helps to determine how much of one product you might need versus another, as well as the rate that needs applied.

Some products may be marketed as pH correction products but are not. Research has clearly shown that a pound of ECC from agricultural lime, pelletized lime, water treatment plant sludge, fluid lime, or other source is equal in neutralizing soil acidity. Thus, the cost per pound of ECC applied to your field is a primary factor in source selection. Products *without* an ECC value – even if they include calcium – won't be effective at pH correction. Gypsum or liquid calcium products (calcium chloride or calcium nitrate, for example) fall in to this category.

Soil pH is an important facet of a balanced nutrient management program. For best results, always start with a good soil test and then correct with an appropriate product to make that nutrient management program work effectively, efficiently, *and* economically.

Quality Grass Seed

As fall grass seeding/overseeding approaches, be cautious about what you are purchasing. Many high-quality mixes cost a little more, but also may include higher quality varieties as well as less potential for weed or other crop seeds.

Other crop seed may seem harmless and sound like it shouldn't be a problem. Grasses like some of the bluegrass species or even a pasture grass like orchardgrass fall in to this category. Unfortunately, they can become weedy species in a lawn, growing at a different rate, or being a different color than desired. Weed seed percentage should be considered as well, with the noxious weed seed percentage at zero. Its highly likely you'll pay a little more to get 'pure' seed, but you'll likely see a better end product as a result.

Trying to determine what bluegrass or fescue varieties to plant? A listing of various Kentucky Bluegrass cultivars can be found at <https://tinyurl.com/zh456xvv> . The recommended for Kansas Tall Fescue cultivars can be found at: <https://tinyurl.com/zh456xvv> . Both lists are also available upon request from any District Extension Office.