

Combat Acidic Crop Soils With Lime This Fall

LEXINGTON, KY.

Fall is the perfect time for farmers and homeowners to check their soils to determine acidity. A simple pH test can help determine if the soil needs a lime application to counteract acidity. Although soil testing may sound too complicated and scientific, it's one of the easiest things a farmer can do to keep their soils in optimum shape.

"Fall is a great time to apply lime if the pH of your soil is too low," said Frank Sikora with the University of Kentucky College of Agriculture's Division of Regulatory Services. "Applying lime in the fall provides plenty of time to neutralize the soil acidity so the field or lawn is ready for planting in the spring."

It takes about three to six months for lime to react with soil, so a fall application will give the soil all winter to effect the desired change.

The relationship between soil pH and the health of cropland or lawns is important. Over time, soil gradually becomes more acidic. Heavy use of nitrogen fertilizers, crop residues and other organic debris can contribute to the acidity. Once the soil becomes acid, bacteria and other organisms in the soil start to diminish, and that keeps the plants from using all the nutrients the soil has to offer. The roots are no longer able to absorb all the nutrients in the soil. Correcting soil pH can effect positive change in how the plant absorbs and uses nutrients. Farmers and lawn managers may find they no longer need as much fertilizer once the

soil pH is optimal.

For agricultural purposes, the University of Kentucky provides lime recommendations in tons per acre of 100 percent effective lime.

"Because agricultural lime is less than 100 percent effective in neutralizing soil acidity, lime quality needs to be taken into account when determining application rates," Sikora said.

The Kentucky Department of Agriculture administers the state lime law and provides analysis of agricultural lime sold in Kentucky with a report in spring and fall each year. The lime quality is reported for each lime source as percent RNV, which stands for relative neutralizing value.

"A lime with 50 percent RNV means the lime is 50 percent as effective as pure lime," Sikora explained. "If a two-ton per acre recommendation was made for 100 percent effective lime, the farmer would need to apply four tons per acre of 50 percent effective lime."

The UK soil test lab makes calculating agricultural lime applications rates easier based on the quality of lime from specific quarries available to producers in their local county. Cooperative Extension offices in each county have this option available for their soil test reports.

Farmers should contact the UK agriculture and natural resources Cooperative Extension agent in their county with lime calculation and application questions. The agent will help get a soil test and also help the farmer determine if a field needs lime. Δ



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