

SOIL TESTING

When soil testing was introduced during the first half of last century, it brought with it considerable controversy. Certain university administrators looked upon it with a jaundiced eye. A few even referred to it as black magic and wouldn't allow it to damage the reputation of the local Cooperative Extension Service by banning it from campus, so to speak. There have been and probably always will be detractors.

Serious rifts between public and private soil testers have surfaced from time to time. Most disagreements grew out of conflicting philosophies which influenced the way results were interpreted (or manipulated). I suspect a few differences of opinion still exist. People seldom look at the same information and come up with like answers. Some have misused soil testing. Others never appreciated its true value. The concept caught on, however, and continues to be a valuable tool in nutrient management.

Back in 1967, the soil testing laboratory I helped to design, build and then manage was going full force. It was automated and computerized, with the capability to accurately analyze up to 4,000 samples per day. New-age printers spat out recommendations for fertilizer, lime, pesticides, and corn hybrids. Big Blue offered one or more of nearly 70 additional observations and bits of advice pertinent to the information submitted with each soil sample. It was all cutting-edge stuff. Current technology is eons ahead of those days.

The problem back in the 1960s was that we didn't always get good samples. Even though I am no longer actively involved in soil testing, people tell me that sampling is still the weak link, whether an acre grid or a sample per 40-acre field is used to interpret laboratory results. I can't refute that claim, but believe, and always have, that the real weaknesses in soil testing are improper use of test results and apathy.

The Institute has just completed a survey of about 2.5 million soil samples taken for the 2001 growing season in North America. Nearly half of them tested medium or lower in phosphorus (P) and potassium (K). That means that a majority of the farmers involved in the survey could be losing yields and profits from too little fertilizer and/or inadequate soil fertility. At the same time, I'm sure some are over fertilizing, either because they don't bother to test their soils or fail to correctly adjust recommendations when they do. Too little or too much fertilizer can be a negative for the environment and cut nutrient use efficiency.



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