TIME TO RETHINK
SOIL SAMPLING

Advice trumps tradition, and farmers may want to consider more frequent soil tests and even a seasonal switch to sampling soils in the spring versus fall.

> BY JOANIE STIERS

Roy Wendt, Altamont, Ill., checks the seed depth in his double-crop soybeans. As with the common practice of checking seed depth, farmers should establish a soil sampling pattern with consistency in the time of year and soil moisture level to determine trends over time.
"The soil moisture level has been a bigger factor in consistent results than was earlier thought to be 15 to 20 years ago," says Scott Bowen, client representative for SGS North America’s laboratory in Toulon, Ill. "Historically, there have been people that have always done it in the fall, and we recognize that as important."

Bowen, who has more than 20 years of laboratory experience, consults with farmers throughout northern Illinois on soil test results and fertility strategies. He prefers spring sampling when soils usually contain more moisture. It also provides more time for fall fertilizer decisions.

"Part of my feeling about spring sampling is it allows you more time to analyze your results and fertility strategies without the pressure of harvest being over you," Bowen says.

West central Illinois farmer David C. Erickson switched from fall to spring sampling in 1993. He farms in a strictly corn-soybean rotation, and samples ahead of planting soybeans because the farm applies the initial variable rate application of dry fertilizer in the fall ahead of corn.

"It really gives you a chance to study the soil fertility and your nutrient needs," says Erickson, former president of the Illinois and American soybean associations. "We're spreading this out over a four- to five-month period instead of doing it in two to four weeks."

To an extent, Erickson does take into account the soybean crop harvested between the spring sampling and fall fertilizer application. However, his farm’s pattern of routine grid testing at the same time each year provides the most valuable information he needs.

**CONSIDER NARROWING SAMPLING WINDOW**

Time and finances play a factor in sampling timing. But based on soil fertility alone, soil tests at least every two years will provide the best direction for fertility management decisions, says Rachel Cook, assistant professor of soil fertility at Southern Illinois University Carbondale.

While every four years represents common practice, testing every two years will help maintain optimum fertility levels, she says. "However, if you are below optimum levels and trying to build up to recommended levels, I would soil sample every year."

Bowen also sees a trend and need to test more frequently than every four years. He favors a three-year program and notices a small percentage of farmers who have even made commitments to every other year.

"It was pointed out to me quite a few years ago that as yields started progressing, we were getting more change in the pH readings than we had been seeing in the 15 years previous to that," Bowen says. "As people started looking at their results, there was more change over a four-year period than they liked to see, so they narrowed up that window."

Cook encourages farmers to establish a soil sampling pattern with consistency in the time of year as well as soil moisture level to determine trends over time.

"Soil testing is by far one of the best investments you can make on your farm," she says. "If you don't know where you are starting from, then you can't possibly know where to go."

**Checkoff FACT:**

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If you have questions about soil sampling, the soybean checkoff-funded ILSoyAdvisor.com website offers opportunities to ask experts specific questions, as well as browse through the various soil fertility management tips posted on the site.