

Testing *Provides* Best Directions

Soil Test Recommendations Can Save Time, Work And Money

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A comparison of soil testing recommendations from two university labs and three private labs was studied recently by David Dunn, supervisor of the Delta Center Soil Testing Lab at Portageville, Mo. He reported on the findings at a recent meeting.

"Basically we went to the field and selected a



research area, one each in three different soil types, a sandy, a silt loam and a clay soil," Dunn said. "We collected a composite sample, dried it, ground it, split it into five parts and supplied that sample to five different soil testing labs and asked them for recommendations for two bale cotton."

When the recommendations came back, Dunn's group followed those recommendations each year for three years. They used the recommended fertilizer amount, recorded the amount of cotton harvested in each plot, applied an economic value to that, figured out the cost of the fertilizer applied, and then calculated how much the return net was from each plot.

"It was hard to determine the cost of the fertilizer because the cost varied each year, so we took the cost structure that was in place in any given year and calculated it from there," he continued. "It turned out there were minor variations in yields, but each of the programs yielded; however there were significant differences in cost."

The main difference was two of the private labs recommended phosphorus fertilizer. As it turned out all three of the areas selected tested high in phosphorus. The university labs did not recommend phosphorus fertilizer.

"I could make a good case for either recommendation system," Dunn said. "In our recom-

mendation system we say 'if you have enough there you don't need to apply any more.' In the private lab recommendation system they would say, 'you've removed some, you should replace some.' So that was one of the main differences in the phosphorus fertilizer program on that.

Dunn recommends that when the soil test recommendation are received, whether from a private lab or a university lab, that farmers dig a little deeper.

"Most farmers look at the recommendation, how much fertilizer they say to apply," he said. "The thing to look at next is the levels of various nutrients found. Ask about the structure, how those recommendations are developed."

He also urged farmers to pick a soil lab and stick with it. That way you know what the people do and the labs that produce good results. Nearly every lab in the country participates in a comparative testing program, and most of the labs give results that are very, very much the same.

"It's just how those recommendations are applied," he said. "What I recommend is pick a lab and stick with it, get to know the people."

Dunn said in the three year test, it turned out that at two of the three sites, the total returns from doing that test was maximized by the lab that requested the lowest level of input.

"Once again when you get the recommendations, sit down with the people you buy the fer-

tilizer from and discuss it."

David Dunn, Supervisor of the Delta Center Soil Testing Lab at Portageville, Mo. reported on the findings of a comparison of soil testing recommendations.

Photo by John LaRose, Jr.

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Dunn mentioned the case of a farmer in Iowa who used the "m o r o n method" of applying fertilizer, using the same amount that his father used.

"You just put more on every year," he explained. "Finally three years ago when fertilizer prices went sky high, I got him to collect some soil samples because he was concerned with carrying forward with what he did before. He learned he had generally been over-applying phosphorus and under-applying potash. He was able to take that and make an intelligent decision about how much, what kind and where he applied fertilizer in the future."

As a cattle and hog producers he had quite a bit of manure and was able to make a decision about where to put the manure.

"It seemed like every time he got ready to move manure he didn't have time to move it any farther than the next field," Dunn continued. "The long and the short of that was his close fields were being over fertilized, while some of his more remote fields were being under fertilized. His manure is an economic resource that he can sell to his neighbors."

In the end, Dunn was able to save him time, labor and money.

"I don't have a good handle on what his time and labor were, but the money was significant," he said. "The main thing is, he was able to maintain a consistent fertilizer program." Δ

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