

# Can You Afford To Cut Back On Fertility?



**MIKE PLUMER**

**CARBONDALE, ILL.**

**C**ost of production for 2009 has been the main topic of discussion with farmers these days. After doing a wheat production meeting a few weeks ago, I can see why. Every scenario that I tried for production costs showed that 70-bushel-per-acre wheat would lose money. Adding double crop soybeans helped; but at the prices for next year, it was still close. So the question everyone is asking is this: "Can I cut back on fertility?"

For wheat, there is a good chance of a yield loss unless fertility levels are high – especially phosphorus, which should be a P1 test of 60 or better. But, what about corn and soybeans?

Looking at the basics of fertility, it takes 19.6 pounds of DAP to change the soil test for phosphorus 1 point. Then for 140-bushel corn, not fertilizing would remove about 130 pounds of DAP or would reduce your soil test by 6.7 points. Not fertilizing with potash for 140-bushel corn (takes 6.7 pounds of 0-0-60 per point) removes

65 pounds of 0-0-60 or would reduce your soil test by 9.7 points. Soybeans would be a little different; 40-bushel soybeans would reduce your soil test by 3.3 points for phosphorus and 13 points for potassium.

The big question is whether it would hurt yields. University of Illinois Extension recommendations for southern Illinois soils state that to get 95 percent of your yield, the soil test for phosphorus should be 28 to 35 pounds per acre and that potassium should be around 230 pounds per acre. But, this is assuming averages. Soil tests are not that accurate; fields are not that uniform; cation exchange capacity varies; and soils act differently with different tillage, organic matter levels and rotations. That is why we normally recommend higher soil tests.

So, do you have a reasonably current representative soil test? Can you afford to pull that soil test down? Extension has always said that good soil tests are like money in the bank; is it time for a withdrawal? Δ

*Mike Plumer is Extension Educator, Natural Resources Management, with the University of Illinois at the Carbondale Extension Center.*