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HIGH FERTILIZER PRICES...WHAT TO DO?

Fertilizer prices are higher than in the past and supplies of some nutrients are tight. Yet most realize, and research continues to confirm, the critical role of fertilizer use in profitable crop production. Under the circumstances, there is an emphasis on efficient use of nutrients. Here are some general suggestions for keeping fertilizer bills as low as possible without compromising the yield that brings much needed profit.

Account for nutrient supplies already in the soil. Soil test results provide good guidance for fertilizer use. If soil test levels of phosphorus and potassium are high, there is reduced probability that an economic response (beyond a starter band) will occur in the year of application. Credit nitrogen from previous leguminous crops. **An often overlooked, but effective tool is the soil nitrate test.** This test helps producers account for the nitrate already present in their soils. If levels are high enough, freshly applied nitrogen rates can be reduced...in some cases substantially. This test is particularly useful where manure applications have been made or yields were poor. The test is especially appropriate after drought.

Account for nutrient supplies on the farm or nearby. If you have access to manure, use it as effectively as possible. The current economic conditions have increased the value of manure as a nutrient source. Be sure and check the nutrient content of the manure and the rate at which it is applied, so that you can calculate how much of each nutrient is being put on.

Time nutrient applications for highest efficiency. Spring applications provide nitrogen at a time closer to crop need, reducing the chances for nitrogen loss. In some areas, fall applications can be effective if they are made when soil temperatures drop below 50 degrees (F) and remain there. Nitrification inhibitors can also reduce nitrogen losses from fall to spring. Splitting the total nitrogen rate within the season can increase crop use efficiency.

Place nutrients for greatest efficiency. Generally, banded nutrient applications provide higher first-year recovery of applied phosphorus and potassium than do broadcast applications. Short-term economic decisions may dictate banding phosphorus and potassium at reduced rates, but be advised that this will ultimately result in draw-down of these nutrients in soils over the long-term. Hence, producers and advisers will want to build in a plan for replenishing soil nutrient supplies in the future, when economic conditions improve.

Allocate money to the right nutrients. Many emphasize that nitrogen needs must come first. Before jumping to this conclusion, soil test levels must be examined. It is usually best to apply at least some of each needed nutrient, rather than focus on one nutrient. This balanced approach will maximize the effectiveness of all applied nutrients.

Examine yield goals. Since many nutrient recommendations are based on yield expectations, setting realistic yield goals is important. Averages of several years are often useful guideposts in establishing appropriate yield goals. **Re-examine the basis for nutrient recommendations.** Are your nutrient recommendations based on the best science available? If modifications or different approaches are being used, is there good information and justification behind them?

When funds are limited and supplies are tight, it is paramount that nutrients be used as efficiently as possible to accomplish grower goals. Efficient use is possible only when informed decisions are made. Keeping soil test information up-to-date, identifying profitable fields or field areas, using all nutrient sources available, and adopting nutrient management practices grounded in proven scientific principles assure the greatest chances for success.

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