

Winter 2009-2010, No. 3

## DO YOUR NUTRIENTS BALANCE?

**Now that the 2009 crop has been harvested, it's time to take a look forward and prepare for an even better season next year.** Many decisions will have to be made before the growing season begins again, including an assessment of the specific nutrient requirement of each field that will be needed to support high yields again next year.

**You may hear plenty of talk about nutrient planning and budgeting.** This may include developing a comprehensive nutrient management plan that accounts for all of the nutrients brought onto the farm with fertilizer, animal feed or manure, and other off-farm resources. Nutrients primarily leave the farm in harvested crops and animals. Other inputs and outputs, such as N fixation, erosion, and leaching also need to be considered.

**Soil analysis can help monitor the nutritional status of your fields.** If fertilizer application rates are calculated to only replace the harvested nutrients, you may not be adding the correct amount of fertilizer. If the soil nutrient concentrations are in the low or medium range, merely adding sufficient fertilizer to replace the quantity of nutrients removed in the harvested crop may result in depressed yields. If soil analysis reveals nutrient concentrations in the high and very high range, it may be possible to trim your application rate.

**Use all the available tools for your nutrient planning.** In addition to soil testing, use estimates of nutrient removal, yield goal projections, and an assessment of available nutrient resources. Soil testing is the cornerstone to all other nutrient management decisions. When used consistently, soil testing is especially valuable to monitor trends and to guide decisions for long-term profitability and productivity. If the soil nutrient concentration is declining over time, it may be necessary to boost the application rate. If the nutrient concentration remains in the sufficient range, then perhaps only a small starter application will suffice this year.

**Farming practices with a nutrient deficit are successful only where you already have a large nutrient reserve in the soil.** Many nutrient plans call for maintenance applications, where annual additions of replacement nutrients are recommended. However, this decision should only be made after knowing the facts. Ignorance of your soil conditions is not the way to make the best decisions.

**Consult with your crop adviser for help in gathering all the data and to draw on the best field-tested recommendations for your area.** Remember that many tools exist to make nutrient management planning a science-based activity for all your fields. Dividends of profitability and environmental stewardship come from keeping your nutrients in balance.

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For more information, contact Dr. Robert Mikkelsen, Western North America Director, IPNI, 4125 Sattui Court, Merced, CA 95348. Phone: (209) 725-0382. E-mail: [rmikkelsen@ipni.net](mailto:rmikkelsen@ipni.net).

Abbreviations: N = nitrogen.