



## The economics of soil testing

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Soil testing is the only tool we have to evaluate the pH, phosphorus (P), and potassium (K) status of the soil. Knowing this information allows growers to make economically optimum applications of lime and phosphorus and potash fertilizer. In these times of economic uncertainty, managing input costs is an important component of farm sustainability. Many growers have opted to cut costs by eliminating soil testing as part of their management program. This is not a recommended strategy. There are two main misconceptions about soil testing:

**MISCONCEPTION #1:** Soil testing is expensive.

**FACT:** Routine soil testing costs about \$0.35 cents per acre. University of Wisconsin soil testing recommendations are to collect one composite sample per five acres and to soil test at least once every four years. Using a standard rate of \$7.00 per analysis, this averages out to \$0.35 per acre per year. All Wisconsin Department of Agriculture, Trade and Consumer Protection Certified Laboratories are required to provide fertilizer recommendations based on University of Wisconsin guidelines along with the soil test values. This only considers the cost of the laboratory analysis and not the costs of labor required to collect the sample.

**MISCONCEPTION #2:** Maintenance applications of P and K are appropriate in all situations.

**FACT:** Soils testing in the “Very Low” to “Low” range for P and K require additional inputs beyond removal rates to optimize yield.

**FACT:** Soils testing in the “High” to “Excessive” range require less than removal rates to optimize yield.

In either case, money is lost from either reduced yields or over application of P and K. When soils tests indicate the soil is in the very low to low category, this suggests that there is a very high likelihood that yields will increase due to application of fertilizer. However, it also indicates that the subsequent crops would benefit from building the “fertility” of the soil through additional P and K inputs over time.

For more information on soil testing, please visit our website [www.soils.wisc.edu/extension/soilsampling.php](http://www.soils.wisc.edu/extension/soilsampling.php) . Additional soil fertility information can be found at: [www.soils.wisc.edu/extension](http://www.soils.wisc.edu/extension)

