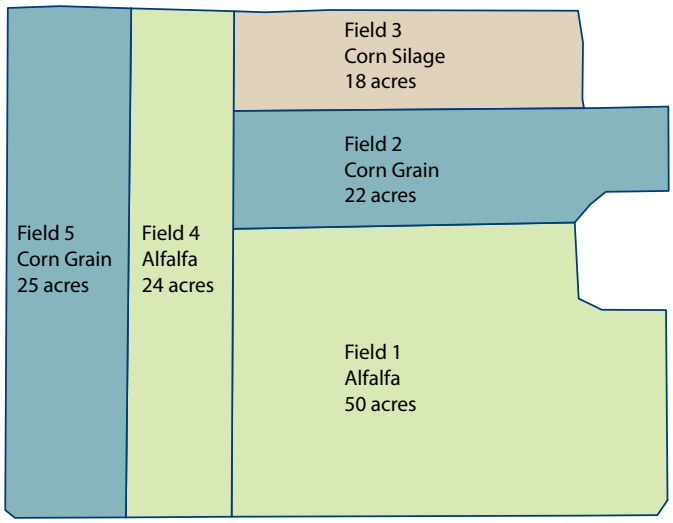
Why Soil Sample?

Accurate soil sampling on your farm can provide you with information that can be used when making important input decisions. Making an informed lime and fertilizer recommendation for fields based on the field's actual soil analysis might even **save you money!** In the examples below shows a direct comparison of fertilizer recommendations based on two application rate scenarios—one based on crop removal of nutrients and the other based on actual soil test results—which one would you rather use?

Application Rates According to:

(Crop Yield Goals: Corn Grain 200 bu/a, Corn Silage 28 tons/a, Alfalfa 6 tons/a)

Crop Removal of Nutrients



Fertilizer Applications

Corn grain fields
DAP @ 175 lb/a, Potash @ 100 lb/a on 47 acres, Urea @ 410 lb/a

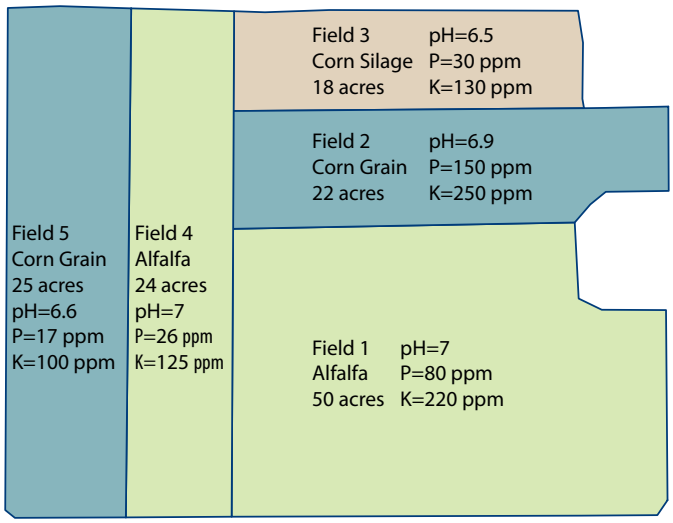
Corn silage field
DAP @ 225 lb/a, Potash @ 400 lb/a on 18 acres, Urea @ 410 lb/a

Alfalfa fields
DAP @ 175 lb/a, Potash @ 600 lb/a on 74 acres

Total Costs for Crop Removal Method

Soil tests		**$0**
Total DAP	12.6 tons @ $525/ton	**$6,615**
Total Potash	28.2 tons @ $440/ton	**$12,408**
Total Urea	13.3 tons @ $490/ton	**$6,517**
Total Cost		**$25,540**

Soil Test Results



Fertilizer Applications

Rates may vary depending on application method and number of fertilizer blends ordered.

Field 1 Potash @ 150 lb/a

Field 2 Urea @ 410 lb/a

Field 3 DAP @ 100 lb/a, Potash @ 100 lb/a, Urea @ 410 lb/a

Field 4 DAP @ 100 lb/a, Potash @ 600 lb/a

Field 5 DAP @ 250 lb/a, Potash @ 150 lb/a, Urea 410 lb/a

Total Costs for Soil Test Results Method

Soil tests	29 samples @ $8 analysis, labor to collect not included	**$232**
Total DAP	5.2 tons @ $525/ton	**$2,730**
Total Potash	13.7 tons @ $440/ton	**$6,028**
Total Urea	13.3 tons @ $490/ton	**$6,517**
Total Cost		**$15,507**

SEE OTHER SIDE FOR MORE INFORMATION

Not soil testing cost $10,033 in this situation! **How much is not testing costing you?**

For more information, go to visit our website

ipcm.wisc.edu

to view the video

Basic Soil Sampling for Wisconsin Agriculture

or the http://learningstore.uwex.edu/ to view or print the
University of Wisconsin Extension publication, A2100 *Sampling Soils for Testing*

Some real world examples:

Dan Holland and Brett Newman

Dan and his son-in-law Brett farm 310 acres and milk 85 cows, raise young stock, and feed out steers on their Green County farm. In 2009 they decided to write a nutrient management plan for their farm, which included taking updated soil samples for their farm. **Immediately, they experienced a savings in annual fertilizer expenses.** With their soil test analysis as the basis to their nutrient management plan, they discovered they were applying fertilizer on fields that didn't need it and were applying at rates too low on fields that did. By adjusting their manure and fertilizer applications to meet the crop needs, they saw an increase in yields on low fertility fields.

John and Jake Wedeberg

Brothers Jake and John Wedeberg run an organic dairy and cash grain operation in Crawford County. They have 50 milking cows, young stock, and approximately 425 acres of tillable land. Jake heard about a nutrient management workshop in Seneca and decided to attend. "Knowing what nutrients you have and what nutrients you need is the number one benefit of nutrient management." With soil test analysis as the basis of a nutrient management plan, Jake found the soil analysis most helpful. **Once they found out what fertility levels they were working with on their farm, they could better plan their manure applications and were able to reduce the amount of lime that they applied to their fields.**

NPM

This publication is available from the Nutrient and Pest Management Program, please contact us:
by phone (608) 265-2660, email: npm@hort.wisc.edu or visit our website at ipcm.wisc.edu

May 2014