



*Profitable for You.
Right for the Environment.*

The Aglime Council of Indiana

"Your Resource for Aglime Information"

Precision Soil pH Management with Variable Rate Aglime

**Precision soil sampling and variable rate
aglime application maximizes both yield
potentials and return on investments!**

Precision Management

Precision soil testing provides an inventory of several factors that affect yield. Potential yield limiting factors are identified and management practices that focus on raising these limits can then be implemented.

Soil pH is a very important part of crop production. The soil pH determines how efficiently many of the necessary inputs can be utilized by the crop. Herbicide performance and nutrient availability can be dramatically affected by the soil pH. Efficiency is reduced when the pH is either too low or too high.

Aglime is a very cost effective input when needed; however, the consequences of over application may take years to correct. Variable Rate Application applies Aglime at the recommended rate for each area of the field thereby avoiding additional Aglime on high pH areas.

Site Specific Sampling and Variable Rate Application are effective and economical tools for identifying and correcting problems that limit crop yield potential and your farm's profitability.

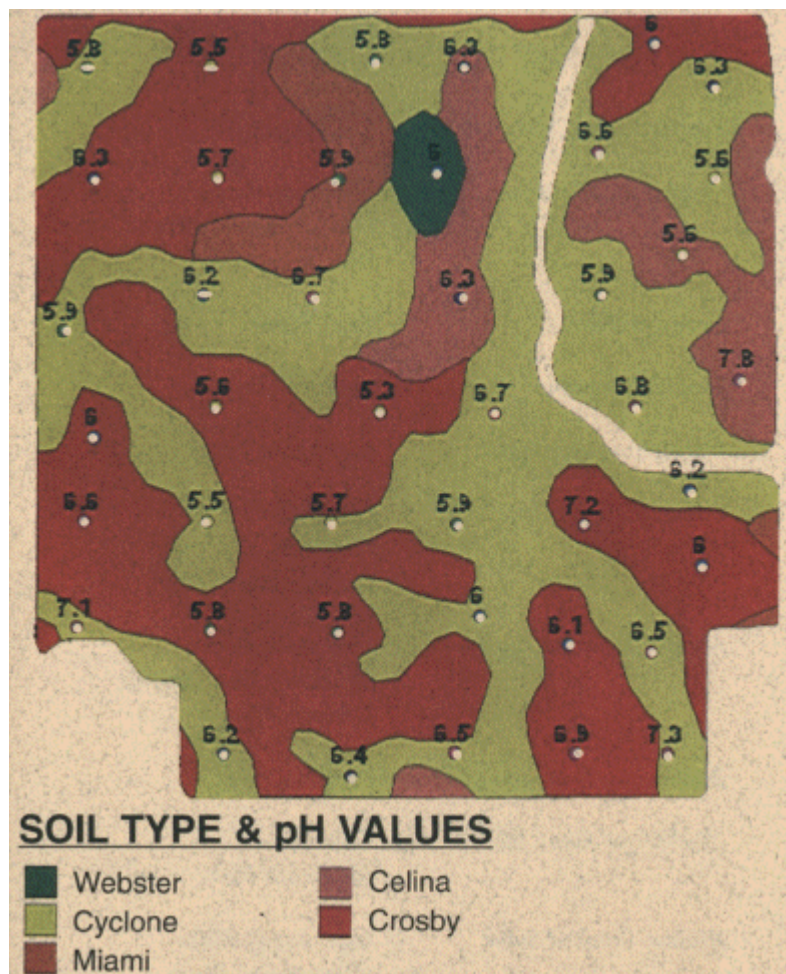


Soil pH by Site & Soil Type

Precision soil sampling is the foundational layer for variable rate applications of Fertilizer and Aglime. Composite Soil Type sampling leaves a lot of variability undetected.

As an example, suppose you have a 97 1/2 acre field that contains five different soil types: Webster, Cyclone, Miami, Celina and Crosby, with Crosby soil being the predominant soil type.

Site Specific sample testing shows that the Crosby soil ranges in pH from 5.5 to 7.2 and that half of the Crosby soil in our example field has a soil pH under 6.0, indicating Aglime is needed. If, however, a Composite Soil Type test recommendation was used, no Aglime would be recommended.



Soil samples from various selected sites in our example field reveal a pH variability from 5.3 to 7.8, which is common throughout Indiana. If Aglime was applied using the average pH of the whole field, only 10% of the field would get the correct rate, 51% would get a higher rate than needed, and 39% would be under-limed.



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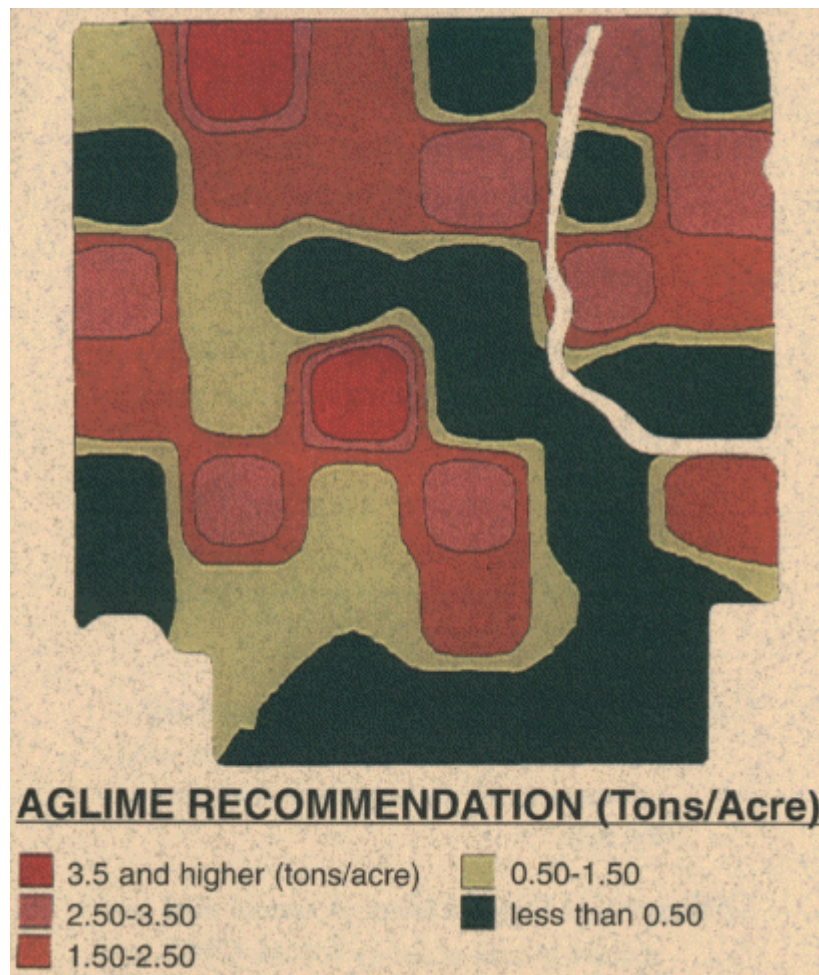
The Variable Rate Aglime Recommendation

In our example field, we selected 41 sites to be sampled and the location of each site recorded using DGPS (Differential Global Positioning System). An Aglime recommendation is then made for each site using the Soil pH and the Buffer pH.

Soil pH determines if Aglime is needed and the Buffer pH calculates the amount of Aglime to apply.

Our example field, Aglime Recommendation for Tons per Acre reveal that various areas in the field would require a range of:

- 3.5 and higher aglime tons/acre
 - 2.50 to 3.50 aglime tons/acre
 - 1.50 to 2.50 aglime tons/acre
 - 0.50 to 1.50 aglime tons/acre
 - less than 0.50 aglime tons/acre
- to correct the field's soil ph level.





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A Variable Rate Aglime machine determines its location by the DGPS, reads the recommendation map, and adjusts the Aglime application rate as it passes through the field according to the Site Specific soil test results.



Variable Rate DGPS Equipped Lime Truck

Precision Soil Sampling and Variable Rate Aglime Application maximizes both yield potentials and return on investments.



The Aglime Council
11711 North College Avenue, Suite 180
Carmel, Indiana 46032-5601
Tel: (317) 580-9100 Fax: (317) 580-9183
E-mail: staff@indmaa.org

For more information, including locations of aglime sources, see our Aglime Producers Map at www.aglime.org or contact your local county extension office.

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