

Q: What is SuperCal 98-G?

A: SuperCal 98-G is the highest quality pelletized limestone in the Midwest. SuperCal 98-G is made from finely ground calcitic limestone 98% calcium carbonate (CaCO_3), mixed with a binder to produce a pellet. Because the CaCO_3 is so pure, and so fine, you can use 300-400 lbs./a in place of one ton of ag-lime.

Q: How can 400 lbs. of SuperCal 98-G equate to one ton of Ag-Lime?

A: Table 1: The average particle size of SuperCal 98-G is smaller than 100 mesh. Therefore, 20% of 199,000 is 39,800 sq. ft., which equates to 91.4% of an acre. The average particle size of ag-lime is 20 mesh. Therefore, one ton of Ag-Lime will cover 36,000 sq ft., which equates to 82.6% of an acre.

On table 2, notice the fine particle size (SuperCal 98-G) increased the pH in two weeks (100 mesh curve), whereas that Ag-Lime curve (20-30 mesh) does not do much for 18 months.

Table 1

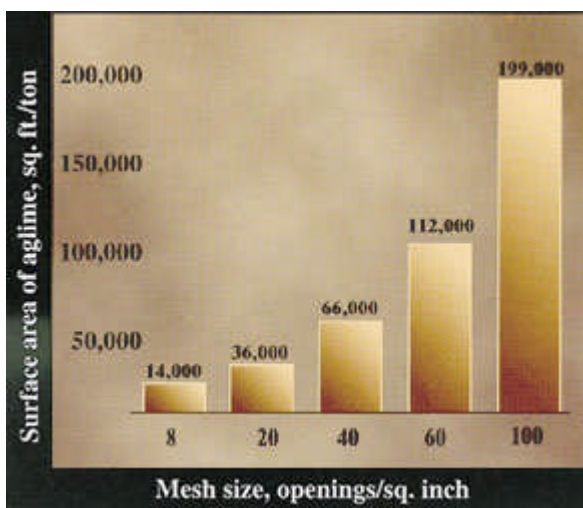
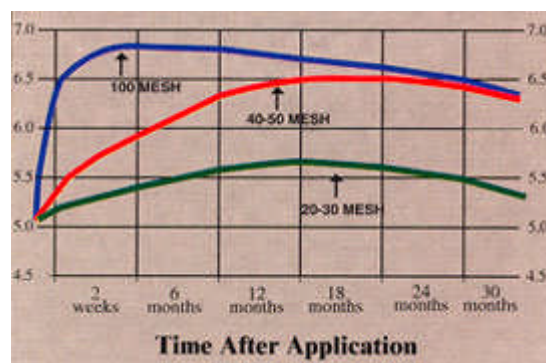


Table 2



Q: What is limestone?

A: There are two types of limestone. (A) Calcitic, which is CaCO_3 (B) Dolomitic, which is $\text{Ca Mg} (\text{CO}_3)$.

The addition of magnesium makes the difference in the two types. Using dolomite as an ag-lime creates a buildup of magnesium in the soil as plants do not use much magnesium, and the buildup of Mg will create "tight soil". Plants will have a more difficult time growing. Many growers look at a Ca to Mg ratio of 4 to 1. To insure they do not have too much magnesium you can use calcitic lime SuperCal 98-G or gypsum SO_4 to reduce the Mg. Or, better yet, use SuperCal 98-G all the time.

Q: Is calcium the same as lime?

A: Calcium is only part of the formula for calcium carbonate (limestone) and the carbonate is the active part in the reaction to neutralize the acid (low pH) found in soils.

Calcium will seek out and attach to sites on organic and clay particulate in the soil, thereby releasing nutrients that may be tied up there.

Q: How does buffer pH figure in?

A: The buffer pH is an indication of just how much lime will affect the soil pH. A high buffer reading usually indicates not as much correction will be needed if the buffer is low.

Q: How does SuperCal 98-G work?

A: Calcium carbonate will react in the soil to "bind" to hydrogen molecules and form compounds that will disperse in the air or soil and render them unable to affect the pH of that soil. The byproducts of this reaction include carbon dioxide and water.

Q: Can I use more than 400# of SuperCal 98-G if my tests indicate I need more than 1 ton of ag-lime?

A: We don't advise using more than 500# per application, as calcium carbonate is not very soluble and will move only a very few inches into the soil. If you are using minimum tillage or no-till, that distance can be further reduced. Rather than over correct that shallow depth, we recommend applying more frequently, rather than applying more than 500# in any given application.

Q: What type of cultivation should I use to incorporate SuperCal 98-G?

A: We recommend using the type of tillage that you are finding fits your operation. No variation in tillage is needed.

Q: Can SuperCal 98-G be applied in furrow?

A: Yes. SuperCal is flexible in application methods. We have seen the best response to in furrow or banding when the product is applied in a "T" band. Rates are figured using the normal banding formula.

Q: Can I use SuperCal 98-G in my deep banding or strip-till operation?

A: Yes. We have seen satisfactory response to SuperCal 98-G being deep placed. This can be done with or without accompanying fertilizer (dry only).

Q: Should I use SuperCal 98-G before corn or soybeans?

A: Using SuperCal 98-G before either crop will produce satisfactory results. Most will determine by which crop receives fertilizer application and then applying at the same time or in the same application with the fertilizer. It can be impregnated at that time also. In some extreme situations, we have recommended putting on 400# prior to corn and an additional 200# prior to soybeans to hasten the relief from very low pH's.

Q: Can I apply SuperCal 98-G myself?

A: SuperCal 98-G can be applied by any normal fertilizer equipment, it is possible for you to apply this product by yourself. It is, however, recommended you follow your dealer's recommendations, and often they are better equipped to apply this material along with your fertilizer, especially if you are considering the use of variable rate technology.

Q: What should I expect to pay for SuperCal 98-G?

A: Around the plant (Gilmore City, Iowa), \$6.00 per 100 lbs. is a ballpark figure. As you get further away, the increased freight will increase the price.

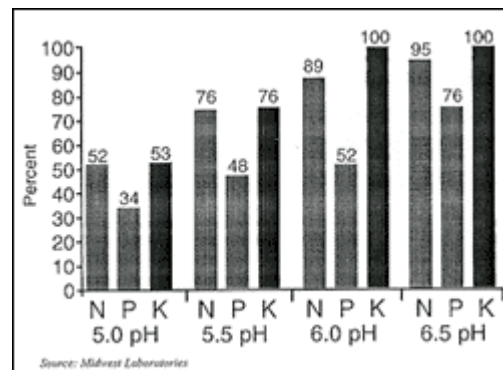
Q: At what pH should I consider liming?

A: Low pH creates 2 issues. First, is reduction of yield. Second, your fertilizer inputs are limited by pH

Crop	pH 4.7	pH 5	pH 5.7	pH 6.8	pH 7.5
Corn	34%	73%	83%	100%	85%
Soybeans	65%	79%	80%	100%	93%
Alfalfa	2%	9%	42%	100%	100%

At a pH of 5.7 you will lose 17% of your anticipated yield, 20% on beans and 58% of an alfalfa crop.

We recommend that you develop a program to keep your pH in a range of 6.5 to 6.8 for most Midwest row crops.



The bar graph represents the % of nutrients available to the plant at various pH's