

# NEWS FROM VERDE-CAL®

Second Quarter  
2008

Products of **AQUA-AID, INC.**



## Miller's Miscellaneous

Newsletter time again. My how time flies! In this issue you will find articles of interest to you and your customers. Please pass this along to any customers who may see a benefit from reading this issue. With summer here, many parts of the country are realizing very different weather patterns. In the South, we are again experiencing semi or full drought conditions. The Midwest is getting the rain fall and too

much of it. In the northeast things seem pretty typical, you have finally warmed up and it is business as usual. The big story is still nutrients, and how to afford to fertilize the golf course and landscapes. In most regions, it seems as though phosphorous and potassium are the nutrients being utilized less and less due to the cost. We shall see how this works out in the coming months and years. The one

thing that usually stays the same is amending the soil. With more and more choices of products to use, we see an ever increasing appreciation towards VERDE-CAL products. Turf Managers of all types continue to see the real value in applying and utilizing available nutrients vs. wasting time and budget over other less effective products.



## Nutrient Needs: Newsflash from Mosaic

One of the worlds leading Potash suppliers – Mosaic recently released a press release stating: Over the next 12 years, Mosaic will expand their potash production by 15.5 million tons. This will keep Mosaic as one of the world's largest and leading potash suppliers. The first expansion won't happen until 2009 at the

Plant in Saskatchewan, Canada. Of course, this news follows similar stories we have heard from numerous other sources in the industry. VERDE-CAL products utilize sulfate of potash in two products we make: VERDE-CAL K and VERDE-CAL K Plus. We have seen continued cost increase with these

products due to the situation with potash supply and demand. Please be understanding as pricing continues to play out over the next several months. Please click the following link to read more about Mosaic's situation.

[http://www.croplife.com/e-news/20080408\\_mosaic.html](http://www.croplife.com/e-news/20080408_mosaic.html)

### Special Interest Articles:

- Miller's Miscellaneous.
- Nutrient Needs: News from Mosaic
- Truths about lime and gypsum
- Salt Aid update
- How to sell VERDE-CAL with Seed Sales this fall
- Granular Wetting Agents

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## Lime: Truths and Uses

Being an age old soil amendment, lime has undergone major scrutiny over the years. With regards to solubility and availability, lime must undergo major requirements to become justifiable as a so-so soil amendment. These requirements are: Soil moisture, oxygen, soil and air temperature. Microbial activity helps as well. All the conditions that lead to oxidation. How well has the lime been refined and processed. Many think pulverized lime is the best. This type is very inexpensive, but is it the best form? Can you incorporate it into the profile of the root zone? Aeration is not an incorporation. In fact in nearly all cases, pulverized lime is the worst thing you could apply to existing turf. Pelletized lime is no better. Incorporation must be implemented as well as optimal conditions to release. Still today, we see this amendment being used at the wrong rates and wrong times. For pH increase, lime has much more data to support its use and corresponding rates to abide by vs that of gypsum. A buffer index helps greatly to understand the proper rates to use. The rule of thumb for lime: To raise pH effectively, there needs to be at least 150 lbs. per acre of available calcium in a carbonate form to even begin the conditioning of the soil. Why is this? Such a high rate is needed because the calcium in lime must first oxidize in the soil to release. This could take years. It must also feed the plant that is growing there. The turf or ornamental plant may need

4 – 5 lbs. of calcium per 1000 sq.ft. per year for a healthy diet. Lose any of this to insolubility and the plants calcium benefits: stronger more rigid cells, better water uptake and translocation, movement of nutrients, etc... suffer. And pH will not effectively increase as expected. Rates for lime, regardless of whether it is dolomite or hi cal, start at 25 lbs. per 1000 sq.ft. for maintenance purposes. This should be done once or twice per growing season. For raising pH, 48 lbs. per 1000 sq.ft. Regardless of the pH, adding soil applied calcium (along with foliar) is very important for the best plant/soil growth and health. Still we see lime either not being used at all, or being used at such low rates that there is no chance to do any benefit to the turf or soil. VERDE-CAL being 100% soluble and 100% totally available to the plant and soil makes the task of amending the soil easier and much more effective. We do this by reducing rates and providing the needed availability of the correct calcium source to modify or maintain proper calcium levels. 5 lbs. per 1000 sq.ft. for maintenance. Do this two to three times per growing season. 12 lbs. per 1000 sq.ft. to raise calcium levels and thus effecting pH. Do this once and test again to justify another application. Remember, it is not the total pounds of product applied that count, it is the total pounds of available and soluble nutrient that gets the results.

“Opportunity is missed by most people because it is dressed in overalls and looks like work.”

Thomas A. Edison

## Gypsum: Truths and Uses

Gypsum, otherwise known as calcium sulfate, is an ever growing used amendment for today's tough soil/water and environmental conditions. Last year gypsum use grew by an estimated 65% vs. that of the two prior years. This according to most of the large gypsum producers. Much of this growth is due to more manufacturing of recycled “dry wall” products, and the need to find a home for these products. Agriculture has seen large increases and turf and ornamental is undergoing an increase in demand as well due to the benefits of calcium sulfate.

A great amount of the increased growth is due to further education of calcium and what calcium sulfate can do for the soil and turf plants. Much like lime (calcium carbonate and oxide), gypsum has a very hard time breaking down and becoming soluble and available to the plant and soil. Lime needs oxidation, gypsum needs hydrolysis. So a large amount of water along with optimal soil conditions and temperature and incorporation into the soil help greatly to break down calcium sulfate. There is not nearly as much data related to proper rates for calcium

sulfate as there is for lime. Therefore we see an even greater neglect to the proper use of gypsum than that of lime. Most turf managers use gypsum to flush greens of excess salts and sodium. Gypsum use goes far beyond that. Available calcium in a sulfate form can provide:

- Better conditioning of available nutrients
- Effective control of sodium and poor soil solution quality
- Release of high magnesium
- Loosen tight soils
- Stimulate photosynthesis
- Improve foliar applications

**Remember:** Soil amending requires pounds per acre, not oz. per 1000 sq.ft. Volume of available calcium is key to getting great results that will last and provide great results.

## Gypsum: Truths and uses (cont.)

Gypsum rates should start at no less than 25 lbs. per 1000 sq.ft. To many of us, this rate seems very high. But to get any reaction at all from the calcium sulfate, at least this much is needed. 25 lbs. per 1000 sq.ft. equates to a maintenance rate. This should be done three to four times per season or more if conditions require more conditioning. Curative rates for gypsum start at 48 lbs. per

1000 sq.ft. This equates to 1 ton per acre. This may seem high to many of us. To effectively condition the soil and get any long lasting results from the application, you must have about 85 - 90 lbs. per acre of available, soluble calcium sulfate. Otherwise the treatment is very short lived and the effect to high sodium and salts is minimal at best. VERDE-CAL G, again, makes this application simple.

Maintenance rates of 5 lbs. per 1000 sq.ft. should be applied three to four times per year to keep adequate soil calcium in the profile and keep nutrients in most available form. Curative rates for VERDE-CAL G are 12 lbs. per 1000 sq.ft. Do this and follow up with a soil test. VERDE-CAL G is 100% soluble and available as soon as it is watered in.

The combination of PHCA and our wetting agent makes VERDE-CAL calcium available and completely soluble. There must be this combination or the products simply won't work properly

## Salt Aid: Providing a great solution for treating poor irrigation quality.

Salt-Aid is making its appearance all over the country where poor soils and poor irrigation water quality is a concern. Treating the soil solution is key to effectively making a better soil environment. Things to think about when choosing a product to improve the soil solution:

- Is the product compatible with other products?
- Is it safe for the soil microbes?
- Will it burn?
- Does it need to be sprayed alone, or can it be tank mixed?
- Is it affordable?
- Is it safe for your equipment

Salt-Aid can satisfy every one of these considerations. Salt-Aid can be tank mixed (check for compatibility), it is safe to the soil, and will

actually feed the soil's living organisms. Salt-Aid will not burn, it is affordable and very safe on the equipment and applicator.

The Salt-Aid program is as follows:

Begin with a high rate of 8 – 16 oz per 1000 sq.ft. Follow this with maintenance rates of 3 – 8 oz. per 1000 sq.ft.

The key to success with Salt-Aid is that applications are done monthly while the pressure is on. The worse the water and soil situation, the higher the rate should be. If rainfall is experienced, Salt-Aid can be reduced slightly.

Rates may be changed due to environmental conditions. Combinations of Salt-Aid and VERDE-CAL products go a long way to improvement of the entire soil and water structure .

"The only place success comes before work is in the dictionary."

Vince Lombardi

Reverse every natural instinct and do the opposite of what your inclined to do, and you will probably come very close to having a perfect golf swing.

Ben Hogan

**Seed Season upon us: Perfect time for VERDE-CAL!!!**

The beginning of summer always brings the onset of new pricing and programs for fall seed sales. So much focus is put on seed sales in the fall that VERDE-CAL is often times overlooked. Remember the margins you made on seed last season? Why not incorporate VERDE-CAL into your seed program. This way you can enhance the germination of the seed and enhance your margin as well. VERDE-CAL products have always been key to good seed establishment. Yet we often times get forgotten in the fall. This year don't let the opportunity pass you by. What a great way to add a little "icing to the cake" and end the year with increased sales and margin.

The use of PHCA with wetting agent greatly sets up the soil structure for successful seed establishment. Fall is typically a time of year when rainfall can be at its lowest. So here is a way to improve soil conditions to benefit the seed. Often times, we tell a turf manager to put down a VERDE-CAL application to an area that has been seeded which is experiencing germination problems. And like magic, the seed responds instantly. Why not treat the whole area? The way to do this is to apply VERDE-CAL first about two weeks before the seed goes down. This gives the product time to get into the soil and improve conditions.

**Top Secret!!! Profit you may be passing up.**

When we think of wetting agents we typically think of use on greens, and maybe areas beyond the greens, such as fairways. There are fantastic products available to you (beyond the normal liquids) that broaden your wetting agent use and bring in a new profit center to your sales strategy. I am talking about granular wetting agents. These products are available in every type of chemistry, be it, water holder, penetrator, short term or very long term, or organic acid remover. Your customers most likely are experiencing problems that can be easily solved by

the introduction of one of these products. All of the AQUA-AID products are available on a porous ceramic carrier. Rates are typically very low, such as 3 - 4 lbs. per 1000 sq.ft. With rates like these, a little will go a long way. Regardless of part of the country you are in, there is a specific product that can help with the symptoms your customer may be experiencing. Recently I was at a golf course that was utilizing our Aquifer Granular on the turf areas around the club grounds. The superintendant stated that he couldn't afford the time to

keep these areas looking in top condition and irrigation is very poor or non existent. The use of the granular Aquifer really helps him keep these high focal areas looking their best. Now, as yourself, how many of your customers may have this same exact situation. Have you ever tried to sell this type of product for these areas? Most likely not. So now is a perfect time and perfect product to introduce to your clientele. Granular Wetting agents, they are for more than just greens.

**FEED THE SOIL AND THE SOIL  
WILL FEED THE PLANT.**

If you need more literature, please request some to be mailed to you by contacting the following:

[maryanne@aquaaid.com](mailto:maryanne@aquaaid.com)  
[scott@aquaaid.com](mailto:scott@aquaaid.com)

Specify how much you need and where to mail it to.

**AQUA-AID® Granular Products**  
Wetting Agents and Surfactants  
impregnated on Porous Ceramic Carrier.

**Aqua-Aid®**      **OARS**

**Aquifer®**      **Recover™**

**Conduit90®**      **PBS150**  
POLYFUNCTIONAL BRANCHED SURFACTANT

Rates vary from 2 - 5 lbs. per 1000 sq.ft.



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