



BEFORE
A soil sample taken from Dunmurry Golf Club before Verde-Cal G was applied...



AFTER
... and the results of the trial after with the black layer removed

Aqua-Aid penetrates European Market

As Charmian Robson writes, a range of new soil enhancing products from Aqua-Aid are assisting greenkeepers and superintendents maintain their courses in first-rate condition.

Over the past two-years Aqua-Aid has had phenomenal success in breaking into the European Golf and sports turf market, thanks to the unrivalled performance of soil enhancing products such as Verde-Cal G, the new 3Dimensional OARS PS and OARS HS range, and Worm Power.

A major factor in this achievement is the combination of new scientific developments resulting in highly sophisticated products to improve soil conditions for healthy plant growth, and a renewed understanding of the importance of plant available calcium in the soil.

Alongside this is the expertise that accompanies these products and a strategy to inform turf professionals through seminars of the exciting changes to greens care in Europe and the US.

With over 30 years' experience in lawn care, landscape, golf, manufacturing and the sales industry between them, Jim Miller of Aqua-Aid USA and Hans De Kort from Aqua-Aid Europe presented the latest facts to 250 greenkeepers in four days across Spain, Belgium and The Netherlands at seminars such as the one held at the Millennium Club, in Antwerp in March of this year.

Hosted jointly by the Belgium and Dutch Greenkeepers Associations it was attended by over 120 top greenkeepers

from golf clubs across Belgium and The Netherlands. Other similar seminars have since been held in Sweden and the United Kingdom, explaining how Aqua-Aid tackles drainage, compaction and aeration issues through precisely targeted soil management.

A number of high profile European golf courses that use products in the Aqua-Aid range include The Kennemer and The Dutch – both host to the KLM Dutch open – La Fregate in Marseille, France; St. Leon-Rot & Gut Kaden in Germany; Portmarnock, Dunmurry, Portlaoise and Waterville in Ireland, and many more in Spain and other EU countries.

Many have already seen the vast benefits to their courses, including improved drainage/reduced black layer, firmer playing surfaces, and over all healthier soil plus a reduced maintenance cost.

Each product in the range plays a specific part in delivering the perfect soil environment to encourage grass to grow to its optimum state.

Niall Richardson, Irish greenkeeper and golf course superintendent at Netherlands based The Dutch Golf Club, (which this year hosts the KLM Dutch Open), has been using both 3D Oars PS – penetrating surfactant – and 3D Oars HS – hydrating surfactant – on the course, with outstanding results.



PGA CATALUNYA SEMINAR
Instruction on application of Aqua-Aid and effects on moisture at PGA Catalunya

As demand in Europe has grown, Jim Miller, who has been involved with the Verde-Cal range since its inception, is now a regular visitor presenting and explaining the technology that has changed the approach to soil management so radically, and in particular, the application of thCaTM – a unique and specialised type of chemistry that helps create soluble calcium as well as other nutrients in the soil.

The importance of calcium cannot be under-estimated when it comes to producing a healthy plant. Just some of the aspects which calcium effects within the soil and plant are; plant stress, colour,

root system, water movement or transpiration, recovery period and effect on the grass when cut and photosynthesis.

The unparalleled effectiveness of Verde-Cal and Verde-Cal G has been seen by every greenkeeper who has used it, and one case that epitomises just how well it can work is that from Dunmurry Springs Golf Club in Kildare, Ireland.

Verde-Cal G was recently trialed at Dunmurry, producing excellent results in removing black layer from the club's second green.

The trial was carried out by golf course superintendent Gerard McEvoy, who had

been looking for a product that included gypsum in the correct formation of calcium sulfate dihydrate to break down the black layer.

McEvoy has been at the course since it's construction in 2005 and was aware of the black layer problem on the greens, and had been treating with hollow coring whilst looking for a gypsum based product. The aim was to see how effective Verde-Cal G was against black layer, and he explains how the trial was conducted, why gypsum is so important and the outcome of using the product.

"I found the Verde-Cal G to be very easy to apply; the solubility is very good



SHARED KNOWLEDGE

(L-R) Jim Miller of Aqua-Aid USA and Hans De Kort of Aqua-Aid Europe at a recent seminar

and it breaks down very rapidly," said McEvoy. "We put down four applications on the second green and one application on all the others, so we treated our worst green quite heavily to see if we could break down any layers that we might have in them.

"You can see by looking at the pictures, there is a massive difference in the two samples and it clearly shows the Verde-Cal G did a great job in dispersing the back layer."

Verde-Cal G is a Calcium Sulfate in a very fine granular form combined with thCaTM – an organic complexing agent – the calcium in gypsum becomes more readily applicable for soil or plant use without effecting or raising pH.

The amalgamation of these chemicals leads to a quicker response at lower rates; loosening compacted heavy clay soils, and improving aeration and water percolation being the most common benefits.

VerdeCal G will be visible in CEC readings within 1-2 weeks after initial application; Normal calcium or gypsum products take up to four years to become available for the plant uptake. The product releases locked-up ions from the soil profile and make these nutrients available for the plant to use. Also leaches excessive Sodium (Na) and Magnesium (Mg) from soil profile.

There are two forms of gypsum; dihydrate and anhydrite. The dihydrate form is the most freely available, and is just what McEvoy was looking for when he was considering Verde-Cal G. VerdeCal G also has a very high Ca content, over 22 per cent – over four times compared

to normal Gypsum, which is one of the reasons why this product is so effective.

"We wanted to use gypsum because it is a flocculent, so it aggregates the soil particles together and opens up the soil profile without raising the pH," he began.

"This helps to increase the percolation rate of water through the soil profile.

"The main reason for using it was because the upper layers of the greens were retaining too much moisture despite a very aggressive aeration and topdressing program applying over 200 hundred tonnes of sand to the greens per year."

In February 2015 the greens underwent their first of two hollow corings using coarser sand than normal. Verde-Cal G was incorporated after the second hollow coring, with the first application going on in August followed by repeat applications at four weekly intervals.

"We normally see the black layer forming in the wetter months of the year, so we began our Verde-Cal program in August to try and prevent it from re-occurring. This coupled with the use of a coarser sand when hollow coring seems to have worked."

One application of Verde-Cal G was put on at 50 grams per meter square to the second green on the second week of August. This was repeated again in September, October and November until the soil profile was analysed again at the beginning of December.

The sample showed a vast reduction of black layer in the second green with a healthy and open soil profile that is able to cope with heavy amounts of rain fall going into the winter months. **GMÉ**