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Condition Your Water With Hydrosmart

Sydney Water began selling its treated effluent as an irrigation product to Liverpool Golf Course in Sydney last year. Faced with this water as the only option, supervisor, Barry Guest wanted to protect the course's turf and soil from increased salinity, bicarbonates, chemicals and nutrient loads which can come in varying levels over the seasons.

Having looked at several treatment options for the reuse water, Barry elected to use Hydrosmart. The different processes and products examined before choosing were:

* Reverse Osmosis ($ 300,000 start up cost)
* Gypsum injection
* Acid injection systems
* Hydrosmart water conditioning ($17,000 start up cost)

While it is still early days at Liverpool, soil pH has shown improvement within 4 months of irrigating using Hydrosmart's water conditioning approach; from its previous historic levels of pH at 6.2, it recently tested at pH 6.4 showing an upward trend.

Showing consistent ability at solving previously unsolvable water problems without filters, membranes or the need of chemicals, Hydrosmart has gained significant industry respect. Previously the only options were water intensive (R.O) or highly over engineered expensive consumable additive type injection solutions in an attempt to overcome problems.

Liverpool Golf Club in Sydney, Adelaide Oval, Hindmarsh Island Marina, Clare and Willunga Golf Course's in SA, Mosman Park and Palm Grove golf courses in W.A, Rockhampton Showgrounds in Qld are using Hydrosmart's resonance frequency approach on water to irrigate their turf.

Some irrigators particularly vineyards in SA have used the approach for up to seven irrigation seasons now and they report being able to produce amongst other things, genuine irrigation breakthroughs using saline water, with visible signs of salt stress vanishing from crops and plants within weeks of irrigation.

The dam at Liverpool golf course before it was treated

As verified in scientific trials, calcium bicarbonate problems moved from being detrimental to advantageous, as large blocking crystals were broken down into smaller, more elemental form, thereby becoming a nutrient source. The modified form boosts growth and vigour naturally and reduces the need to add calcium into the irrigation regime for high bicarbonate hardness bore water users. In the case of Liverpool golf club a Hydromaster 150 (6") was installed within one day beside the course's storage dam onto existing pipework.

Commissioning the Hydrosmart the required powering up the computerised water conditioners with a simple flick of a switch. All water passing down the pipe then has the highly specific bond breaking frequencies transmitted into it, prior to use as it passes through the field of resonance generated by the processor. For an equivalent volume of water to be treated using the Hydrosmart approach to that of a large R.O plant outputting water through a 6 inch diameter pipe, it required installation of two specifically tuned, compact, lightweight, computerised conditioning modules which were fastened via antenna to the outside of the existing irrigation pipe - total price $17,000 with approximately $20 annual operating cost.

The Hydrosmart system installed on pipework at Liverpool.

Hydrosmart technology was originally developed to solve severe corrosion problems in highly mineralised water supplies at high temperatures. It takes a particle physics approach to what is fundamentally a chemical problem and utilises a specific series of computer generated frequencies to confuse the electron polarity of a targeted group of minerals and chemicals. The introduction of these specific frequencies to a body of water impacts directly on the bonding ability of the targeted elements or compounds and results in a significant reduction in chemical inter-activity within the treated water.

As long as the Hydrosmart frequencies are present in water, the ability of the minerals and compounds contained in the flow is severely restricted. This unique combination of a sub 4 mu. particle size, along with a lack of chemical reactivity, has given the technology the ability to resolve a wide range of water related issues including some that are considered to be unsolvable.

In the case of algae control it is necessary to take a return line back to the dam or pond after the pump so that there is a build-up of resonance frequencies in the body of water in the dam.

It has been established that with sufficient resonance introduced into large bodies of water there is an attendant improvement in water clarity, including drops in turbidity, increases in measured dissolved oxygen and drops in algae and blue green algae counts. The benefit is the ability to irrigate with water that would previously damage gardens, turf and plants without any negative growth benefit.