

'Smart' water system boosts tree crop yields

Hydrosmart's physical water conditioning system is a simple, sustainable and effective approach to conditioning bore water and other water sources which would otherwise be unsuitable for agricultural use.

Hydrosmart CEO **Paul Pearce** said the company has been running a field trial on young seedless citrus trees in California over the past 12 months using water of 1200EC (electrical conductivity units – a measure of salinity).

The trial involves measuring tree girths and heights and applying regulated, measured amounts of fertiliser to trees grown on sandy desert soil.

According to Mr Pearce, the Hydrosmart-treated water has yielded a significant 30 per cent increase in tree size in the first year with the results clearly visible at a glance.

"Once installed, farmers can expect to pay about \$10 a year in electricity to power their Hydrosmart," he said. "It's a small price to pay for a nifty bit of gear that reduces bore salinity, protects plumbing equipment and has been proven to increase tree crop yields and even help fatten livestock faster."



The Hydrosmart treated citrus tree on the left had a larger trunk diameter and height than the untreated tree on the right.

Not surprisingly, Hydrosmart units have become a mainstay of sustainable water technology on many farms and outback homesteads that rely on bore water.

"Using the Hydrosmart system, farmers get the advantages of a water conditioning solution that requires no chemicals, no filters and no maintenance. From go to flow, the installation process doesn't take longer than a few hours," Mr Pearce said.

"All we ask that the Hydrosmart is protected, so it may take time to put a small shed or enclosure area around it so it's safe from the elements and animals. It will keep working for decades of use and there are no running costs, other than \$10 in power to run it yearly."

Reflecting back, Mr Pearce said the company started 23 years ago servicing vineyards in South Australia, as the business was surrounded by many great Australian wine grape growing districts.

"The technology took off, and since then Hydrosmarts have helped growers from a range of farming sectors including citrus, apples, olives and horticultural crops, as well as broadacre farms and livestock," Mr Pearce said.

He said Hydrosmart was a vast improvement on water conditioning systems relying on simple static magnets. The Hydrosmart process is controlled by a computer program that puts out powerful electromagnetic fields in combination with resonance frequencies.

"These electromagnet forces are applied to water via coils wrapped around a plastic pipe loop – providing over three metres of contact time and oscillating (activating) water molecules as they pass through the pipe," Mr Pearce said.

"This in turn helps to weaken their bonds and produce a wide range of beneficial outcomes, particularly with highly mineralised, salty, iron- or calcium-rich sources. In short, the device softens hard water to improve overall yields.

"Just like a good overnight fall of rain, which can only be gifted by the weather gods, farmers can notice a difference to their crop within a few days," he said.

"We have had vineyards report seeing vines perk up within a week of putting in a Hydrosmart unit, as the flushing away of sodium and chlorides at the root zone acts like a rainwater event, and plants pick up rapidly.

"The roots can absorb more water and nutrients allowing for the growth of longer, stronger canes, a better canopy and an increase in grape quality and yield."

The recent California trial showed similar benefits in citrus – demonstrating the potential for harnessing poor quality ground water in Australian orchards and other tree crops.

Growers interested in installing a Hydrosmart can claim the purchase back on COVID-19 business tax relief schemes or using various government drought relief offers.