

halcyan
water conditioners

Agricultural Water Solutions

Water is the life blood of any farm so finding the best water solution available is vital. Do you have hard water problems with salt affected soils or iron in well water? Without a soil test how would you even know that you had such problems? Well the results become obvious over time - growing plants in soils that are irrigated with hard water means the salt in soil stops crops from growing as well as they could!

It may have seemed cost prohibitive in the past to remove salt from water on a large scale but when you install a Halcyan Water Conditioner it will allow you to irrigate with substandard water and actually grow crops that will thrive not just survive - and all cost effectively. How? The subtle changes made to the molecular structure of the salts and iron in the

water changes the characteristics of the minerals and keeps them in solution which means that rather than building a crusty layer of salt or iron on the ground these minerals are absorbed back into the ground.

The softer wetter water is then more easily absorbed into the ground and the plants, which gives both a healthier environment to grow crops and increases the yield.



Iron in water is typical in bores & wells

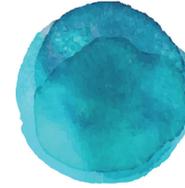
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Benefits of Halcyan Water

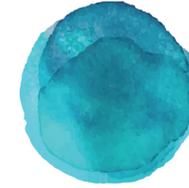
- Calcium, Salt, Iron and other minerals will be kept in solution so they don't crust and damage plants and equipment.
- Irrigate with softer wetter water.
 - Water is absorbed into the ground more easily.
 - Water is more easily taken up by plants...
 - ...Leading to greater feeder root development
 - Less water is lost to evaporation as it is absorbed in the ground.
 - Pipe and sprinkler nozzles will be protected from lime scale deposits.
 - Halcyan is a fantastic static mixer, so you get a great water fertilizer mix.
- You won't need to buy in water which will save you money.
- Animals love to drink the softer treated water so they will be better hydrated and healthier.

Halcyan conditioned water encourages root growth (on left)



Some Agricultural and Farming Applications

- Plant nurseries / Orchards / Arable / Vineyards
- Dairies / Piggeries / Fish farms
- Ponds, lagoons, wells and bores
- ...anywhere you store or run water



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Read the agricultural testimonial below...

Irrigation Water Quality Problems in a Plant Nursery

The Business

The Canopy Wholesale Nursery is a small, well-established 10 acre nursery situated south of Brisbane, Queensland in Australia. The wholesale nursery is a family operated business and it specialises in selling sun-grown quality plants to the demanding landscape market.

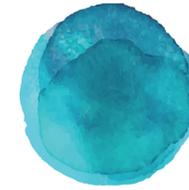
The Hard Water Problem

When Ryan Eaton purchased the nursery the region and state were at the beginning of one of the worst droughts seen in recent times. Irrigation water for the nursery was kept in large dams on the property but without rain to naturally fill the dams water would need to be pumped up from the bore (well).



The irrigation water quality problem with the nursery's bore (well) water was that it had a high salt and iron content. The combined salt levels are 3600 ppm and the iron levels were around 6mg, which is extreme.

- One effect of using the bore water with such high iron levels to irrigate the large cross section of plants was to turn them bright orange within 3 hours of contact. This made the plants far less saleable.
- The other effect was that the growth of the plants was stunted and very slow.



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The NGIQ (Nursery & Garden Industry) representative warned Ryan not to use the bore water for irrigation as it would badly damage his plant stock.

The Common Solution

Droughts are times of high expense when nurserymen commonly outlay thousands of dollars to truck in water. As Ryan looked around for water quality solutions to his dilemma he never imagined there would be any return on his investment.

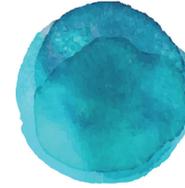
1. One common way to control iron in water is to pump the water into a holding tank or dam (pond) and aerate it. This allows the iron to precipitate out and quickly sink to the bottom. The water is then drawn out using a floating suction.
2. In the case of unusable bore water (as the NGIQ told Ryan his water was) water for irrigation is regularly trucked in and stored in tanks.
3. With no budget for purchasing water Ryan risked losing his plant stock completely unless he found a way to use the bore water. So he looked at buying a unit to aerate his irrigation pond.



Cattle now drinking the bore water filled dam after being conditioned by Halcyan

The Best Hard Water Solution

The bore water was pumped through a small Halcyan Water Conditioner unit that suited the flow rate of the bore, it was pointed skyward for aeration and a small dam was filled.



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The dam settled over a couple of days and soon became so absolutely crystal clear that horses and cows were falling into the water because they could not comprehend that the water got deeper as they moved in!

With the main irrigation dam almost empty the dam with the Halcyan treated bore water was used to irrigate plant stock. A second Halcyan Water Conditioner was installed on the water tank so then the bore water ran through a unit into a holding dam, pumped from the holding dam through a unit into a storage tank which then irrigated the plants around the Nursery.

The Results

According to Ryan Eaton, “...the results were better than I’d hoped for!”

“The stock did not show signs of iron staining, or calcium build up. It did show signs of some minor salt damage but more like damage from water with a 1500 ppm rate. I was told that I could not grow plants in this water, and although I did experience a reduction in plant growth (nothing beats rainwater) I was able to slowly grow most lines. The reps of the Nursery and Garden Industry were amazed at the quality I could produce with the quality of water I had.”

But the most amazing thing for Ryan was the amount of money he saved by using the Halcyan Water Conditioner. “I would have had to buy water by the truck load if I was unable to use my bore. Now I can buy 5,000 litres for \$50.00 per load, I used my bore solely for 8 months and I go through an average of 40,000 litres per day. This unit has roughly saved me in my first year of business \$48,000 !”

Just one example, of a range of ways, in which treating agricultural water with an [Halcyan Water Conditioner](#) can save you money and improve your returns.