



AquaSplit Data Summary

The following is a Brief overview of Data & Research collected for Magnetised water and its effect on splitting water molecules for Soil, Plant, Animal and Water health.

Magnetised Water is often referred to as "structured" or "micro-clustered" water as this indicates that magnetic fields can alter the physical properties of water by breaking hydrogen bonds, increasing bioavailability and hydration.

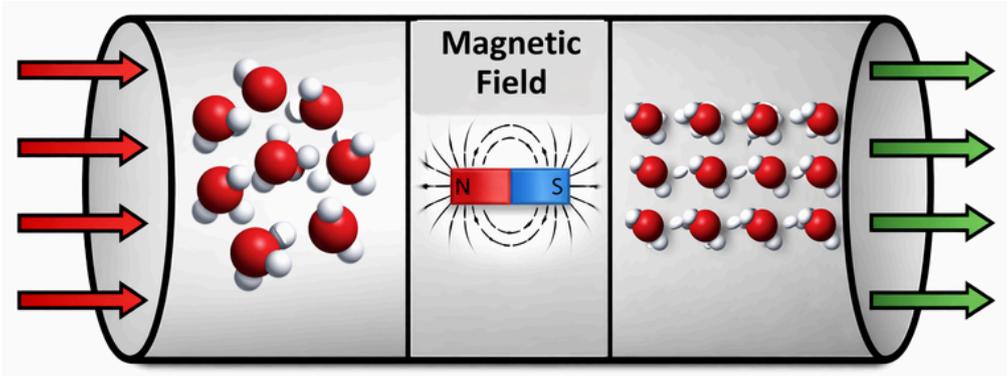
Magnetic treatment (typically 0.1 to 0.8 Tesla) weakens hydrogen bonds between water molecules.

For Aquatic Management of Algae and Single Cell Bacterium, magnetized water treatment is an emerging, non-chemical technology used to control microbial growth, specifically by reducing bacteria and algae in water systems through physical, rather than chemical, means. The technique involves passing water through a magnetic field, which alters the physical and chemical properties of the water, such as surface tension, pH, and oxygen content, making it less favourable for microorganisms.

Studies on *Pseudomonas fluorescens* demonstrated a 2.46 log₁₀ CFU/cm² reduction. Other studies indicate that magnetic fields can inhibit *E. coli* growth by up to 99% in some scenarios.

When used in combination with magnetic particles or as a direct treatment on water, magnetic methods can remove up to 99% of algae cells within 5–10 minutes, reducing chlorophyll-a, turbidity, and chemical oxygen demand (COD).

Algae and most forms of Single Cell Bacterium Plants require a large cell Molecule to absorb and provide the needed level Oxygen and Nutrient to reproductive and thrive. Magnetically treated water is restructured to form smaller cell clusters and hence do not provide the level required for Single cell growth.





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Magnetised water has been found to have increased pH, increased conductivity, increased dissolved oxygen, and reduced surface tension and viscosity. Smaller clusters are more "bio-available," facilitating quicker absorption by the body.

Studies have shown that livestock and animals (rabbits, sheep, hens) consuming magnetized water show increased weight gain, improved milk production, and better metabolic profiles.

Numerous studies have demonstrated the positive effects of irrigating crops with water that has been passed through a magnetic field. For instance, the utilization of magnetically treated brackish water for wheat irrigation resulted in substantial enhancements, specifically a 27% increase in biological yield, a 34% increase in straw yield, and a 19% increase in grain yield, relative to irrigation with untreated water. In addition, MW has also been found to significantly improve the growth and yield of various other crops, including lentils, durum wheat, barley, rice, mustard, bean, lettuce, and cotton, among others. Notably, plants irrigated with Magnetised Water consistently exhibit increased plant height, leaf area, root length, and overall biomass production compared to those irrigated with non-magnetized water.



Credits – Source material drawn from personal online and physical research
From Agriculture to Clinics: Unlocking the Potential of Magnetized Water for Planetary and Human Health - [Piercarlo Minoretti](#) 1, [Enzo Emanuele](#) 2,
Effects of magnetically treated water on the survival of bacteria in biofilms - [Aidan R Foster](#)^{1,2},
[Erika R Stark](#)^{1,2}, [Luisa A Ikner](#)^{1,2}, [Ian L Pepper](#)

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