

# STRUCTURED WATER

## RESEARCH DOCUMENT



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**PLEASE NOTE:**

*This booklet contains links to websites and PDF document containing more information.*

*Please click on the links to read the additional information.*

## What is Structured Water and why is it important?

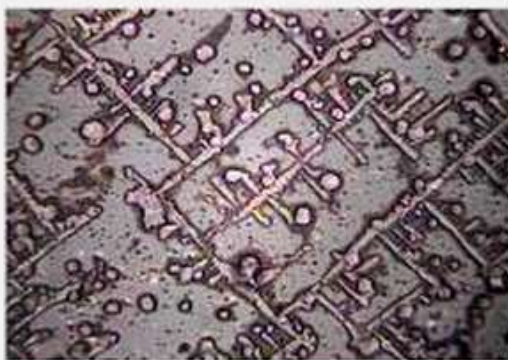
Water molecule, as we know it, contains two hydrogen and one oxygen atom. This is better known as  $H_2O$ . In real life though it seems to be a little more complex, as these molecules are gregarious. They will easily cluster in groups between 5 and 600 molecules. The water molecules switch from one group to the next as these hydrogen bonds are made and broken several times every nanosecond. This makes water a dynamic energy environment that never stops to interact. <sup>[1]</sup>

“In 1991 Physicist Dr. Wolfgang Ludwig documented that water has memory and can store frequencies and transfer coherent information to living organisms (Environmental Medicine, Edited by Trevin & Taalkenhammer, 1991).” <sup>[2]</sup>

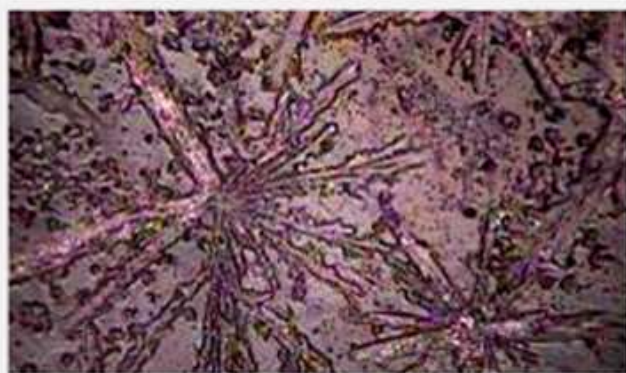
According to Rustum Roy (International Academy of Sciences, Professor at Pennsylvania State University) "modern instruments have made it possible to record the fact that within each of water's memory cells there are 440,000 information panels, each of which is responsible for its own type of interaction with the environment." Just imagine all the information water is carrying in a polluted environment... <sup>[2]</sup>

At school we learnt that water has three phases: solid, liquid and vapor. Dr. Gerald Pollack (University of Washington professor of bioengineering) discovered that water has a fourth phase! Bulk or 'general' water is known as  $H_2O$ , but this fourth phase of water, which can be referred to as the exclusion zone (EZ) or structured water is known as  $H_3O_2$ . The fourth phase is called the exclusion zone, because it literally excludes particles and solutes like toxins.

Dr Pollack's research also indicated that structured water contains more oxygen. <sup>[2][3]</sup>

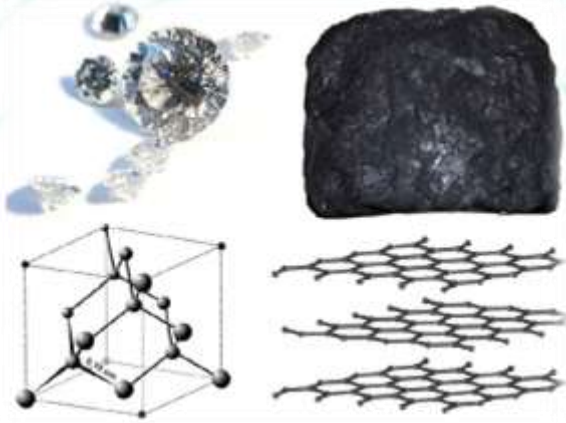


**Sample of Neutral Tap Water, Bottighofen, Switzerland. The 90 degree angular structures represent toxic substances.**



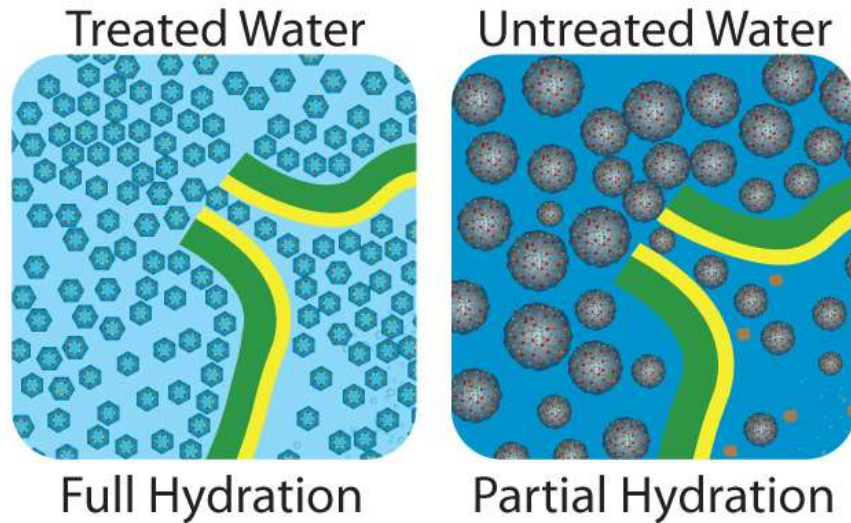
**Structured sample of Bottighofen tap water processed with a Natural Action Water structuring device. Note the absence of 90 degree structures, indicating the structured sample is free of toxic substances.**





The Wellness Enterprise has an effective explanation in terms of how we need to think about this fourth phase of water. We know that both diamonds and coal are made of carbon, yet they are very different. The differences in the bonding angles of the carbon are what cause the two physical substances to be completely different. Unfortunately we cannot see the differences between structured and unstructured water with the naked eye and that makes it difficult to comprehend. <sup>[3]</sup>

According to researchers cells absorb structured water better than unstructured water. When you drink unstructured water you might still be dehydrated as the unstructured



molecules are too big for cell absorption. Structured water breaks down the clusters to single molecules, allowing for better hydration for humans, animals and plants. <sup>[3]</sup> The above diagram, obtained from <https://www.omnienviro.com/magnetized-water/> assists with a visual explanation.

It is well known that the health of plants and animals depend on proper hydration. “Peter C. Agre, an American medical doctor, professor, and molecular biologist won the 2003 Nobel Prize in Chemistry for his ‘serendipitous’ discovery of aquaporins, the water-channel proteins that move water molecules through cell membranes.”<sup>[8]</sup> The cellular aquaporins in plants are “the micro channels that transport water and nutrients through cell walls, letting (H-) good water in and keep (H+) bad water out. When the molecule is positively charged and clumped, the aquaporin rejects it, and stops it from passing through the cellular membrane. This results in water molecules competing for remaining electrons and clumping together.” <sup>[8]</sup> Only one water molecule can pass through the aquaporine channel at a time to hydrate at cellular level. There is no space for that

molecule to carry anything physical or electrical, all it carries is energy and vibration, therefore better hydration takes place.

Dehydration is the main cause of aging and most diseases, therefore it is vital that we get in enough pure, good quality water. Surface Tension is measured in Dynes per cubic centimeter.

Distilled water is around 72-78 Dynes/cubic centimeters, whereas water necessary to penetrate the cell wall needs to be less than 46 Dynes. <sup>[2]</sup>

Structured water has the ability to attract and encapsulate elements that is bad for human life within the water molecule. When this water is consumed it attracts more of these elements as it passes through to the elimination system. Elements good for human life ride on the exterior of the water molecule and are released into the body's function. <sup>[2]</sup>

“To truly understand the science of water, it is important to understand that water is energy and this energy is measurable.

“GDV” or Gas Discharge Visualization is a collection of photographic processes used to capture images of electrical discharges. Through this process we’re able to measure variances of everyday substances, such as water. GDV is a pathway to measuring how much “E” is found in a given type of water.”

The below image indicates the energy through an increase in brightness. It is clear that the filtered and natural spring water have significantly less energy than the structured water.

Structuring water can increase the energy by up to 83%. <sup>[3]</sup>



Images can show us that structured water differs from unstructured water, but the scientists have to interpret these differences. The conclusions of the laboratory that performed this analysis, Hagalis AG, are that the structured water: <sup>[3]</sup>

- has different hydrogen bonding angles than unstructured water
- has increased life force energy

- increased bio-availability of trace minerals and elements
- neutralized all toxins

The full lab report can be viewed [here](#).

The structuring of water can be done through vortex, magnetic fields and using specific crystals (these give off vibrations). <sup>[6]</sup>

To summarize, the benefits of structuring is nature's way to remove excess minerals and suspended gases from the water, restructure and revitalize the water, hydrate the cells better, lower the surface tension for better cleaning and mixing, balances water, and remove the built up scale in plumbing and fixtures. This gives water a lower surface tension and therefore better cell hydrating properties. <sup>[3]</sup>

## Benefits of structured water

### Health

- General health improvement
- Higher energy levels
- Better memory
- Higher level of oxygen in the blood
- Effective hydration

### pH

- pH of the water moves toward neutral.

### Animals

- Improved health/vitality
- Higher energy levels
- Production related to milk and meat can increase with up to 12%
- Water savings up to 30%
- Better quality of meat with good fat distribution

### Taste

- Improves the taste and texture of the water
- Some say the taste of wine improve while others say the things like gas cold drinks like Coke lose their 'sharpness'

### Chickens

- Improved health
- Improved production of up to 12%
- Water savings of 30%

- Less moisture in the houses and therefore less diseases and deaths
- Better quality meat

### **Plants**

- Production increase of up to 35%
- Frost protection up to  $-6^{\circ}\text{C}$
- Water savings of 30%
- Better quality
- Better taste and improved shelf life of fruits and vegetables
- Increase the Brix value
- Better resistance against diseases

### **Lucern**

- Production increase of up to 35%
- Water savings of 30%
- Better quality
- Increase the Brix value
- Save up to 50% on drying time

### **Soil**

- Better absorption
- Stabilizes soil pH
- Leeches salts from soil
- Soil organisms are stimulated and therefore results in better yields

### **Building and cement**

- Water savings of up to 30%
- Improve strength up to 40%
- Use up to 10% less cement for the same strength
- Cement has better resistance to the elements of nature
- Shorter drying time

### **Soaps and detergents**

- Dissolves better
- Soaps and detergents work better due to more complete solutions

### **Pipes and kettles**

- Dissolve deposits in kettles and pipes
- Frost protection up to  $-6^{\circ}\text{C}$

### **Swimming pools**

- Reduces algae growth and less chemicals needed

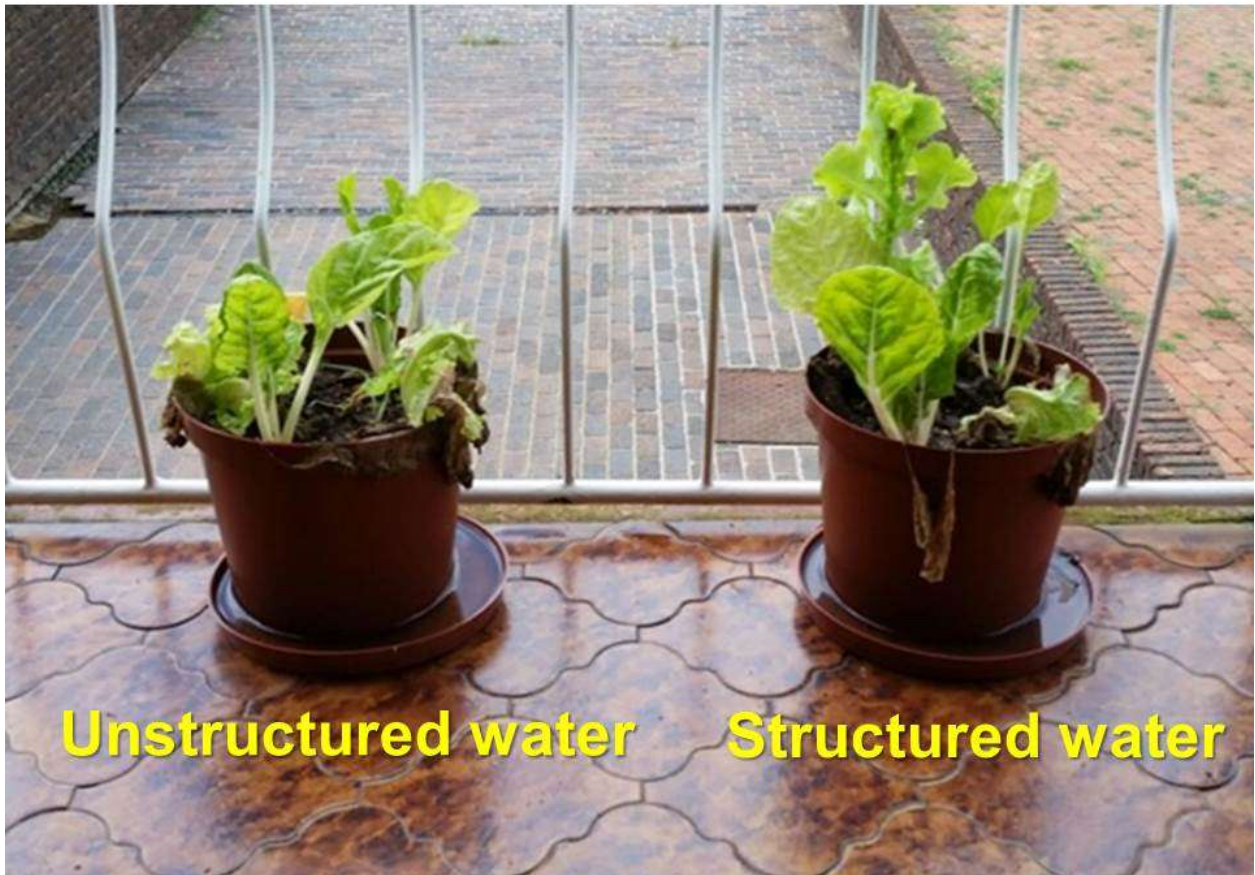
### **Water purification**



- Solids are normally suspended in the clusters, with the clusters gone the solids will sink to the bottom.

### Drying

- Drying time for crops etc. will decrease up to 50%





## The application of Structured Water

- ✓ A report for the Bio Chem Laboratory (a NELAP Accredited Laboratory) in November 2012, showed that “water that was poured through a structuring device that is not expected to have an impact on chemistry showed a **reduction of 25% of Ecoli in the water and 40.2% of TDS or Total Dissolved Solids.**” [3]

The report can be read [here](#).

- ✓ “Hannah Noel is an organic farmer and the Editor of Organic Life Magazine. Several years ago, the State of Vermont tested her well and told her she was going to have to use bleach to get rid of the Chloroform that was in the water. As a cancer survivor and an organic farmer, this was untenable for her. Rather than use a traditional physical filtration method, Hannah treated her well with an energetic process. **Nothing was physically added or removed from her well and the result was that the State came back and tested for the Chloroform again and found that it was gone.**” [3]

- ✓ The study on ‘**Magnetically induced water improves the photosynthetic efficiency of macadamias during propagation**’, by Nicole Boogaers and Dr J. Brener reached the below conclusion.

Magnetically induced water:

- Improved effect on propagation rates and success
- Growth rates improved
- Longer and stronger root systems
- More efficient photosynthetic activity
- More economical fertilizer usage
- 20% less water
- Better irrigation through pipelines
- Water structuring through magnets is environmentally friendly.

For the full report please request the report from Agri Frequencies via e-mail.

- ✓ Herewith a study ‘**Alternative Irrigation Methods: Structured Water in the context of a Growing Global Food Crisis due to Water Shortages** by Fabian Ptok from the University of Colorado Boulder’. The result summary of this study is summed up as...

“Our data suggests that structured water increases the growth of sprouts. The effect was more drastic when applying structured water to alfalfa sprouts (15.1% more growth than with tap water) compared to mung bean sprouts (6.25% more growth than with tap water).”

“While limited in scope, our study points to a promising future for structured water in agriculture. The proposed mechanism that hydration leads to better sprout growth has shown to be effective in the experiment on this scale. Compared to tap water which contains water clusters (Chaplin 2000), structured water is able to better hydrate sprouts

because of its crystalline structure (Swanson 2010). This increased hydration leads to better growth and thus yield. The data we collected for both mung beans and alfalfa seeds confirm this proposed mechanism on a small scale with statistical significance.”

The full article can be downloaded [here](#).

✓ **Providing the plants with structured water will increase the Brix readings of the plant.**

“Centuries of wine making and working with other fruits and vegetables have shown a direct relationship between higher Brix readings and higher quality produce (meaning increased nutritive value, longer shelf life, and superior taste).” [8] Sustainable, healthy soil can be obtained with Agri Frequencies soil stimulation and applying structured water to the soil. With better soil, plants are more resistant to pests, weeds, and disease. In this way crop growers are able to obtain the higher Brix readings. A crop with a Brix reading of 12 or higher will in many cases eliminate most, if not all, insect problems in the garden and on farms.[8]

“Degrees Brix (symbol °Bx) is a unit representative of the sugar content of an aqueous solution. One degree Brix corresponds to 1 gram of sucrose in 100 grams of solution and thus represents the strength of the solution as a percentage by weight/mass.

True Brix measures a combination of sugar, amino acids, oils, proteins, flavonoids, minerals and other goodies. Sugar is merely one of the components of Brix. A drop of the liquid from the plant juice is placed on the prism of a refractometer. Then the cover plate is closed so the liquid will spread out on the glass. As you look through the viewing end of the instrument, you see an etched scale calibrated in 0-30 or 0-32 degrees Brix.” “The light passing through the plant juice droplet is bent so that a clear line is shown against the scaled background of the refractometer. The amount of bending is directly related to the Brix is a measure of energy. A high-Brix plant emits a far superior energetic electromagnetic spectrum than a low-Brix specimen. Insects “see” in this range and they “attack” plants with the weakest emanations. If the grower were to understand that all that talk about how healthy plants “resist” insects is really another way of saying that the strongest plants don’t attract insects.”[8]

✓ Here are a few **results obtained with Structured Water Units:** [10]

- “...a dairy farm that had cows with e-coli. After the farm installed a Structured Water Unit and started hydrating their cows with the structured water the e-coli stopped showing up in the tests!”
- “In 2010 the efficacy of Structured Water for Turkeys has been clearly displayed as a valuable tool to increase profits to producers. Structured Units were set in place at Platte Colony in Central S.D. Flocks 76, 77, 78 and 79 were the historical flocks consisting of a total of 75,200 birds compared to flocks 80, 81, 82 and 83 on Structured Water consisting of a total of 75,200 birds.”
- “In talking about the nutrient quality measured by a refractometer, strawberry farmer Joe Johnson had this to say about a particular parcel where he farmed with structured water from a Structured Water Unit, “This is a plot that has been separated and only

watered with structured water once so the one time that it was watered by structured water, this field has jumped by 20%."

- "At the Volga Research Institute in Russia which irrigates using magnetized water that they call "structured" the institute reported these production increases:
  - 32% increase in Tomatoes
  - 17% increase in Corn
  - 28% increase in Winter Wheat
  - 37% increase in Cucumbers

That's just some of the increases when farming with structured water. They also reported larger onions, radishes, corn and other vegetables."

- "Speaking of cucumbers, Roger Dagget used a Structured Water Unit with his Green House and had this to say about his results: "So I continued to water on a daily basis with the structured water. We give it some compost tea and some other formulas once a week, the foliar feed with the structured water, and the cucumber got to a height of over 15 feet. From that cucumber plant I harvested in excess of 56 pounds of #1 cucumbers! This doesn't count the juicers that I took off of there that we just juiced because they didn't turn out perfect. So 56 pounds."
- Jan Hendrik from Centurion Golf Course indicated some 10 days after installing **Agri Frequencies's structured water unit on one of his greens** that, with 30% less water on that green the condition of the green has not deteriorated at all.
- **Agri Frequencies clients using the water structures' at their residence** has indicated the following:
  - No longer get heartburn.
  - Mineral deposits loosening from kettle elements.
  - Mineral deposits loosening inside pipes.
  - Better plant growth in garden.
  - Roses flowering after receiving structured water while before receiving the structured water they reached the end of their growth season.

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