Aqualatus®

Transformational water technology

ENGAGE
The Power of Nutrition

Saving water, providing security and delivering growth

Developed by Engage Crop Solutions, Aqualatus is an innovative water saving technology and is an essential, proven scientific breakthrough in reducing water requirements, cutting costs and growing profits in parts of the world facing critical water shortages.

50% less

Aqualatus will cut water usage for farmers and growers by half while still maintaining or improving crop health and yields

10 years

10 years of trials proves Aqualatus almost eradicates surface run-off and evaporation and halts leaching by holding water in the root zone of the plant

15-20x more

The amount Aqualatus will save in water, nutrients and energy costs compared to the cost of application

Aqualatus is transforming agriculture in the Middle East and across the world by helping farmers and growers to cut water usage by 50% while maintaining or even improving plant health and crop yields.

The growing crisis in the Middle East has led to water being dubbed the new "blue gold" and agriculture accounts for 70% of global water usage. In the Middle East, the figure is far higher, with agriculture accounting for up to 92% of all freshwater usage.

- ***Saves*** you water
- ***Secures*** future water supply
- ***Delivers*** you growth

Aqualatus delivers water security for growers

By using Aqualatus, growers can confidently cut their irrigation cycles by half and still see exceptional results without any loss of crop development, yield and quality. The technology also ensures that farmers and growers can make savings in water, fertiliser and energy costs too by helping to improve the soil quality.

Aqualatus is safe in any soil and over any crop. It has zero environmental impact and is completely broken down eight weeks after application.

It reduces water loss to crops by eradicating surface run off, dramatically reducing surface evaporation and slowing the natural gravitational movement of water – even in the most arid conditions.

Aqualatus is a critical part of a growers' toolkit for delivering water security, crop quality, cost savings and profit growth – can you afford not to use Aqualatus?

To discuss how Aqualatus can benefit your business, email our Founder Director Peter Blezard *peter.blezard@engagecropsolutions.com*

MADE IN

Aqualatus® how does it work?

Water savings by crop:

- Fruiting vegetables **50%**
- Field vegetables **65%**
- Tree fruit **40%**
- Other fruits **60%**
- Cereals **60%**
- Landscape and turf **60%**

Aqualatus delivers ***50% water savings*** by dramatically cutting the natural water loss you would normally see in soil and other growing media through surface run-off, evaporation and leaching through the soil due to gravity.

By applying Aqualatus, moisture is locked in the root zone of the plant. Our technology is the world-leader in initial wetting and long-term rewetting of all agricultural soil and substrates.

Aqualatus is a liquid polymer which contains billions of microscopic structures that adhere to soil particles and slow the gravitational movement of water, thereby increasing the moisture-holding capacity of the soil.

Surface runoff and evaporation are almost completely eradicated and gravitational movement is dramatically slowed. Reducing this natural water loss allows for irrigation volumes to be much lower and timings to be shorter as the soil is more retentive.

Key uses:

- To actively manage the movement and retention of soil moisture.
- Create an equilibrium of air to water in all soils.
- Reaggregate soils from fine silts and clays to maintain optimal conditions for crop development.
- To reduce overall water application.

Key benefits:

- Formulated to give excellent initial wetting of agricultural soils and growing media.
- Increases water retention in all soils and creates an equilibrium of air and water.
- Optimises the penetration, lateral movement and distribution of root applied nutrients.
- Maximises irrigation efficiency to reduce overall water requirement.
- Provides long term residual re-wetting of roots zones in any crop.
- In regular use will reaggregate soils to support optimum growing conditions .
- Can be applied to all soils and any growing substrate.

Trial data

Saving the Municipality of Dubai *$152m dollars (506m dirhams)*

The Municipality of Dubai can spend as much as $844,000 dollars (3.1m dirhams) a day on water during summer to maintain the parks and landscaped areas of the city. Engage Crop Solutions worked with the Municipality to establish if Aqualatus could reduce water usage and ease the strain on the highly water-stressed region.

When Aqualatus was applied in a year-long trial at the Al Warqa Park, it showed that the Municipality could reduce water usage by 50% while still maintaining the lush landscapes. It cut daily water usage from 87,000 litres a day to just 43,500 litres and moisture levels remained consistently high in the root zone throughout. When applied across the city, Aqualatus will save the Municipality of Dubai $152m dollars (506m dirhams) a year and, crucially, provide water security.

65% water saving for melon grower

Almeria in Spain is the most intensive protected production area in the world and, as a result, water costs are high and growers are banned from using more than 10,000m³ of water per hectare. Despite this, growers need up to 12,000m³ per hectare when the temperature soars.

The largest fruit cooperative in Almeira, CASI turned to Aqualatus to try and cut water usage while maintaining melon yields. In a trial of Aqualatus on a 90-day crop of Peil de Sapo Cantaloupe melons, Aqualatus cut water usage by 65% by reducing irrigation time from 1 hour 30 minutes a day to 20 minutes day.

Crucially, the Aqualatus-treated crop also used less fertiliser and saw melon yields increase by 1.09kg per square metre compared to the untreated crop. The total saving per hectare after the cost of the Aqualatus application, including water and fertiliser costs, was as much as $2,465 dollars (9,055 dirhams) per hectare.

Tomato business cuts water use by *50%*

Thomas Perez is a tomato growing business in Spain and is renowned for the quality of its vine tomatoes. The business was uniquely placed to run a trial on Aqualatus as it grows tomato crops in soil and has an irrigation system triggered by moisture sensors, providing accurate measurement of the benefits of Aqualatus.

Over the course of the 180-day crop, Aqualatus was added at the rate of 2 litres per 500 litres at the start and then injected at a rate of 1:100 once per month. As a result, irrigation time dropped from 34-50 minutes a day to 17-25 minutes day and water costs, fertiliser use and energy were also reduced. After factoring the cost of the Aqualatus application and the reductions in input costs, the total saving per hectare was $3,076 dollars (11,301 dirhams).

For the full trial data, access to the full range of global trials and information on how Aqualatus can save your business money, email our Founder Director Peter Blezard on *peter.blezard@engagecropsolutions.com*

MADE IN

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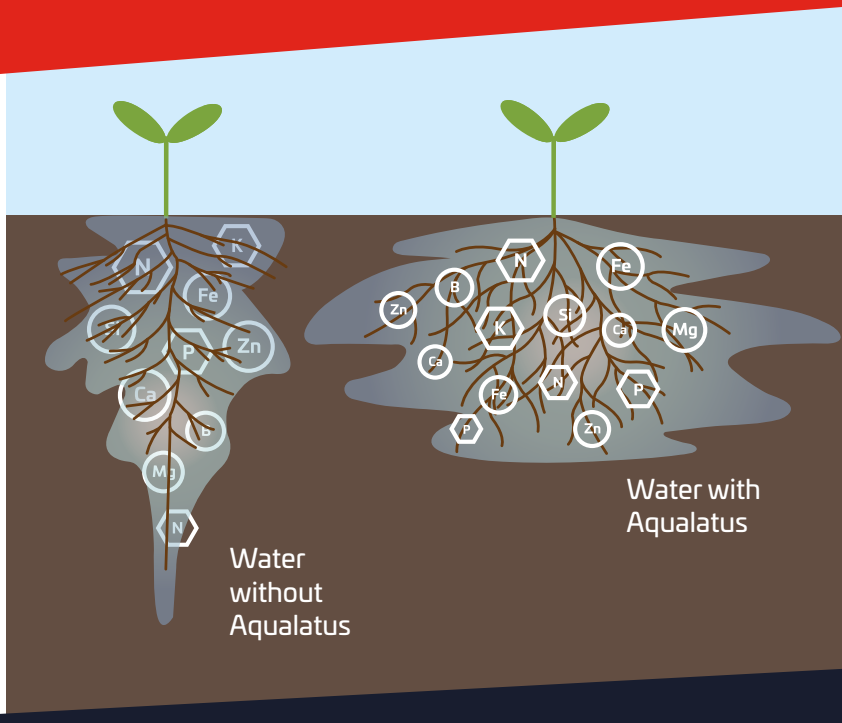
Aqualatus: How it works

- Aqualatus's organic penetrant wetter delivers billions of microscopic structures, called micelles, into the water of the rootzone.
- The micelle tails adhere to soil particles and surround the particle to hold a droplet of water around it with a tiny pocket of air inside.
- The micelles begin to join together in chains to create a lattice web of technology through the soil.
- Gravitational movement of water slows as the micelles hold moisture, lateral movement increases and an equilibrium of air and water if created.



Consumes 70%

Agriculture is the biggest consumer of water on earth, consuming 70% of all fresh water reserves

(www.worldbank.org)

Demand up by 40%

By 2050, global demand for fresh water will have grown by 40% with 25% of the world's population living in countries without access to sufficient clean water

(www.undispatch.com)

Act now

Partner with Engage to help preserve the world's most precious commodity **NOW!**

Partnering with Engage Crop Solutions

Engage Crop Solutions is seeking national/regional distribution partners to promote the benefits of Aqualatus to farmers and growers within your region as part of our ongoing international development.

We are seeking partners with the contacts, marketing awareness and commercial infrastructure within the entire agricultural and horticultural sphere, including the irrigation and water industries. Partners considering distribution should have access to circa 10,000 hectares via their distribution network.

For further discussions to see how we can work together for both of us to transform water usage in your area, please make initial contact with Peter Blezard – Founder Director on ***peter.blezard@engagecropsolutions.com***

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