Engage Crop Solutions

The future of water – Aqualatus®?

A water-saving technology that can cut irrigation volumes by 50% while protecting yields

Interested in conducting a FREE trial?

Click Here

For more information on Aqualatus or to explore potential partnerships, visit www.engagecropsolutions.com or contact Peter Blezard, Founder.

Engage Crop Solutions, a UK-based agri-tech innovator, has developed a unique water-saving technology, Aqualatus™ that enables growers to reduce irrigated water use by 50%, while maintaining crop yields. This means more crops can be grown with less water, offering a vital solution to the global problem of water scarcity and an increasing demand for food production.

The technology is a highly cost effective, sustainable low-dose liquid formulation that can be added to any existing irrigation systems, including pivot irrigation. It represents a revolutionary breakthrough in sustainable irrigation, actively targeting roots to maximise water, fertiliser and nutrient uptake. The innovative formula reduces water wastage by minimising evaporation, leaching and runoff and is completely harmless to the environment. While saving water, the technology also helps to reduce fertilizer and agri-input usage, with the technology creating a stronger holding capacity around the root zone, as well as saving electricity consumption.

Aqualatus is already being used in key crop producing markets, such as Spain, Mexico and Morocco, and across North African and the Middle East. Market development in UAE and Saudi Arabia (KSA) is underway for 2026. Also in the USA registration has begun and achieved for market development in 2026. In the Middle East some growers have been able to cut water use by as much as 60% while still maintaining or even improving crop health and yields with uncertainty removed several large international food groups are now in trials as part of their water sustainability projects. .

Less—really is—more

Aqualatus has undergone over ten years of global trials, including the Middle East, Africa, Europe, USA, UAE (especially landscape developers), and South and Central America. It has been successfully adopted across water-stressed regions worldwide, delivering tangible benefits to commercial growers and governmental agricultural initiatives.

Engage Crop Solutions is inviting collaboration with growers, policymakers, and industry leaders to accelerate the adoption of this water-saving technology that will increase the margins for growers in water restricted areas.

One of the most frequent reports Engage see and hear from growers is that once they have used Aqualatus for more than six weeks and they have measured how much water they save in their reduced irrigation practice, they also save fertiliser and energy as both are linked directly to the lower volume of irrigation applied. Considering the dramatically rising cost of fertiliser and energy, the saving on these two important costs is now a considerable saving. The return on investment is proven for the grower.

For more information on Aqualatus or to explore potential partnerships,

visit www.engagecropsolutions.com or contact Peter Blezard, Founder and Director, at Engage Crop Solutions on +44 7764 654416 or at peter.blezard@engagecropsolutions.

How it works

Aqualatus delivers 50% water savings by dramatically reducing 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 unique in-house technology is the world-leader in initial wetting and long-term rewetting of all agricultural soil and substrates.

Aqualatus is a unique liquid blend of technologies, developed in UK by Engage Crop Solutions and sold internationally.

The base materials of Aqualatus are four ecologically sound liquids. Three are carbon-based unique micellular technology and the fourth is an organic glucose-based surfactant used to deliver the micelles into the soil profile. The organic glucose surfactant is made to be very short term in its life within soils. This, depending upon soil type is from 7 to 21 days as it quickly becomes food for soil microflora and plant roots use it as an energy source to absorb essential nutrients.

The micellular technology are slightly longer term in their longevity in the soil. Soil type, organic matter, soil temperature and soil microbial levels all play a part in how long they take to breakdown. In independent testing and in extensive field studies this is proven to be 8 to 12 weeks. The micelles breakdown into soil CO_2 (60%) and food for soil microflora.

As such Aqualatus is regarded as 100% biodegradable and having zero environmental fate and no residues, or any harm to the soil.

With Aqualatus surface runoff and evaporation are almost completely eradicated, gravitational movement is dramatically slowed and lateral movement of water, promoted. Reducing this natural water loss allows for irrigation volumes to be much lower and timings to be shorter as the soil is more retentive. There is no residual technology left in the soil.

Key uses:

- To actively manage the movement and retention of soil moisture.
- Creates 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. ●

Aqualatus is a registered mark of Engage Crop Solutions.

Why not conduct a trial with FREE product?

Click HERE for more information

Engage Crop Solutions can support its claims with more than 300 field trials across 17 countries and has built a successful trial portfolio by building a network of partners who conduct trials.

Review the Aqualatus Trials data pack. Fill out the form for access to results for:

- Lettuce 2018 in Valley Kraymeh in Jordan
- Cantaloupe in Almeria Spain
- Wine grapes Rutigilano, Bari, Italy
- Tomato in Almeria, Spain
- Citrus 2016 Molina de Seguara, Spain
- Peaches in Veria, Greece

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Engage Crop Solutions - FIELD TRIALS

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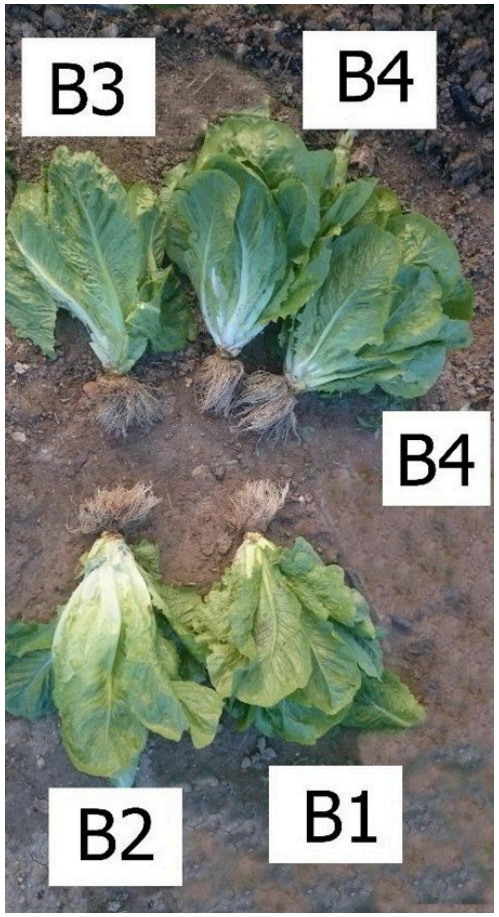
Lettuce 2018

Area | **Valley Kraymeh , Irbid City , Jordan** Co-operator | **Zadcon Agri** Plot size | **5Ha**



Aim of study

To evaluate to best rate of Aqualatus for the region based on a water reduction of 40%-50%.

Application data

Due to the length of crop (6 weeks) only one application of Aqualatus was given at planting.

Applications as follows:

B1 -1.5 litres per ha -40% irrigation.
B2 - 2.0 litres per ha -40% irrigation.
B3 - 2.5 litres per ha -40% irrigation.
B4 – 2.0 litres per Ha -50% irrigation

Soil type. Terrain and Irrigation Clay loam flat terrain. Lay flat tube irrigation. All other parameters of spraying and field preparations remained as normal. Fertiliser reduced in line with reduced irrigation.

Conclusion from study

Of the trials areas it was thought that 2.0 litres at -50% irrigation gave the best results in terms of establishment, root growth, size and quality.

In this trial Aqualatus the best rate of Aqualatus was 2.0L with an irrigation reduction of **-50%**

NEW AG INTERNATI

Piel de Sapo Cantaloupe

Area | **Almeria, Spain** Co-operator | **CASI** Plot size | **3Ha**

Aim of study
To assess if Aqualatus soil water saving technology could reduce the level of water required to produce a high quality crop over total crop period (3 months) and effect marketable yield.

Application data
1st application –
2 litres per hectare after planting
2nd application –
2 litres per hectare 2 weeks later
Subsequent applications given at 1 litre per hectare at monthly intervals (total 6 litres).

Soil type & terrain
Sand loam in levelled greenhouse.

Irrigation type
Mains water mixed with fertiliser and injected through layflat irrigation.

Results and Findings
Aqualatus-treated plots required significantly less irrigation time, reducing watering from 1 hour 30 minutes to just 20 minutes per day.

This resulted in a 65% reduction in water and nutrient requirements without compromising crop quality.

Yield was taken from 4 x 5m2 plots and these plots showed that the use of Aqualatus increased yield from 4.55 kg/m² in control plots to 5.64 kg/m² in treated plots, which commercially would generate an additional €5450 per hectare.

Conclusion from study
Aqualatus increased marketable yield of the cantaloupes by 1.5kg per square metre of production even with a water reduction of 65%.

Business Case Summary
Water savings from Aqualatus usage amounted to **€1,404 to €2106** per hectare, while fertilizer savings ranged from **€203.12 to €243.75.**

Overall, total savings per hectare could reach between **€1,607.12 and €2,481.00**, highlighting the economic benefits of Aqualatus in melon cultivation.

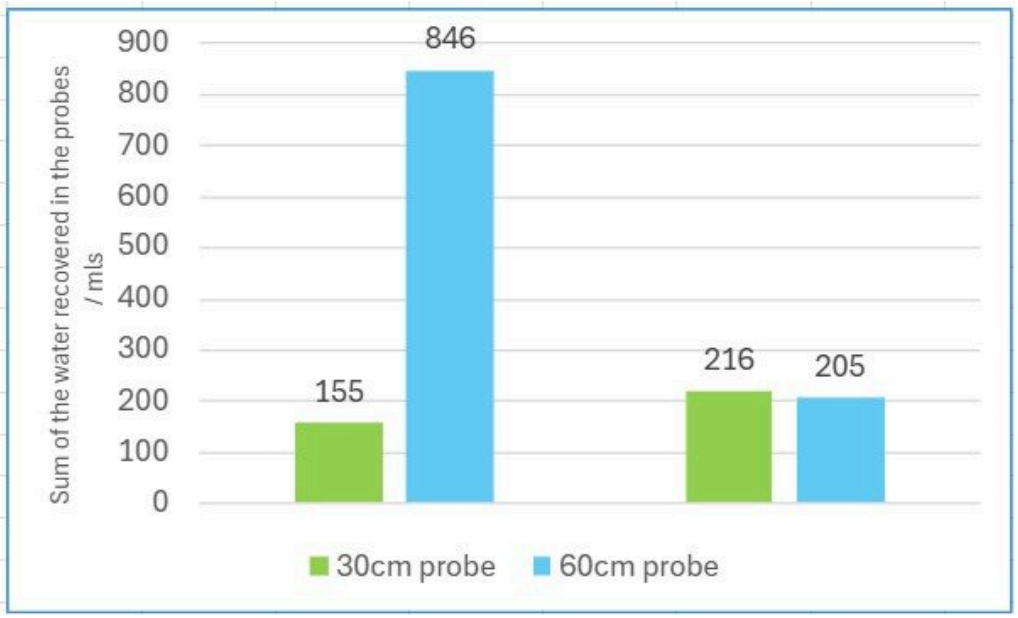
Thomas Perez, grower at CASI

Aqualatus increased marketable yield of the cantaloupes by 1.5kg per square metre of production even with a water reduction of

65%

Wine Grapes

Area | **Rutigilano, Bari, Italy** Co-operator | Agri project Plot size | **2Ha**



The area of Rutigliano is in southern Italy and is renown for the growing of wine grape. The area has good levels of rainfall but still requires irrigation when

Aim of study

To improve the absorption of nutritional solutions to the grapevines by reducing gravitational loss of water using probes at 30cms and 60cms. 60cms is below the root line meaning it is lost to the crop.

Application data

2 plots were chosen 1 Ha each. One received 2.0 litres per Ha of Aqualatus on the 27th of August in a water volume equal to 48lts.

Irrigation

27 Aug 48 litres of water per plant across the day
01 Sept 12mm rain
02 Sept 56 litres of water per plant across the day
09 Sept 40mm of rain
18 Sept 5mm of rain
29 Sept 48 litres of water per plant across the day
18 Oct 20mm of rain
30 Oct soil moisture reading taken.

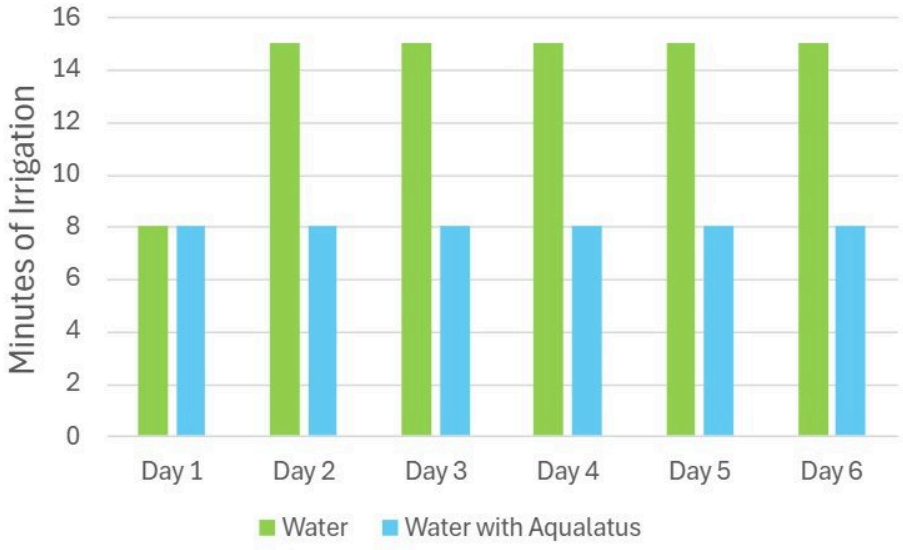
Conclusion from study

From the moisture recorded from the probes it was concluded that as the level of water in the control was far higher than the Aqualatus area that Aqualatus reduced leaching by 400% compared to the control.

In this trial Aqualatus reduced leaching in wine grape by **400%**

Tomato - business case study

Area | **Almeria, Spain** Co-operator | CASI Plot size | **3Ha**



Aim of study

To assess if Aqualatus soil water saving technology could reduce the level of water required to produce a high-quality crop over total crop period (8 months) and effect marketable yield.

Application data

1st application –
2 litres per hectare after planting
2nd application –
2 litres per hectare 4 weeks later

Subsequent applications given at 2 litres per hectare at monthly intervals (total 14 litres).

Soil type & terrain

Sand loam in levelled greenhouse.

Irrigation type

Mains water mixed with fertiliser and injected through layflat irrigation.

Conclusion from study

Aqualatus reduced the water requirement of the tomato crop by 40% in this crop which used 12000M3 of water per season per ha is a saving for Mr Perez of 14400M^3

Aqualatus reduced the water requirement of the tomato crop by

40%

Tomato

Area | **Almeria, Spain** Co-operator | CASI Plot size | **3Ha**

Without Aqualatus

With Aqualatus

Data courtesy of CASI food company , Murcia, Spain.

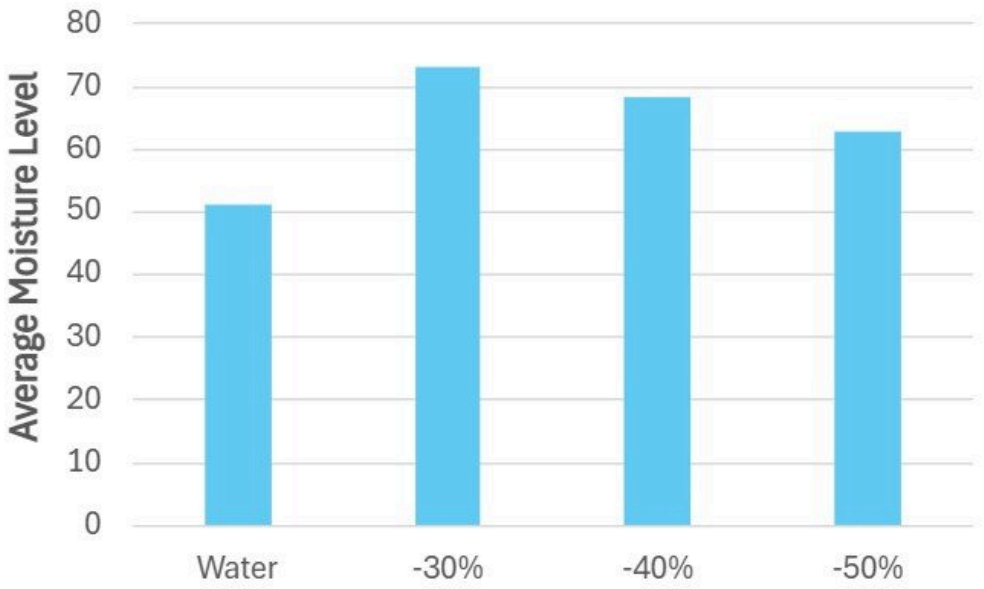
50% SAVING

Plus 50%

reduction in energy and crop nutrients.

Citrus 2016

Area | **Molina de Seguara, Spain** Co-operator | Guillamon Consulting Plot size | **1 Ha**



Aim of study

Using 8 growers, trial is to assess which would be the best % reduction of irrigation to optimise water saving against yield increase.

Application data

1st application – 2 litres per hectare pre flowering
2nd application – 1 litre per hectare 4 weeks later

Subsequent applications given at 1 litre per hectare at monthly intervals (total 7 litres)

Soil type & terrain

Sand loam flat terrain.

Irrigation

River water mixed with fertiliser and injected through permanent irrigation.

Conclusion from study

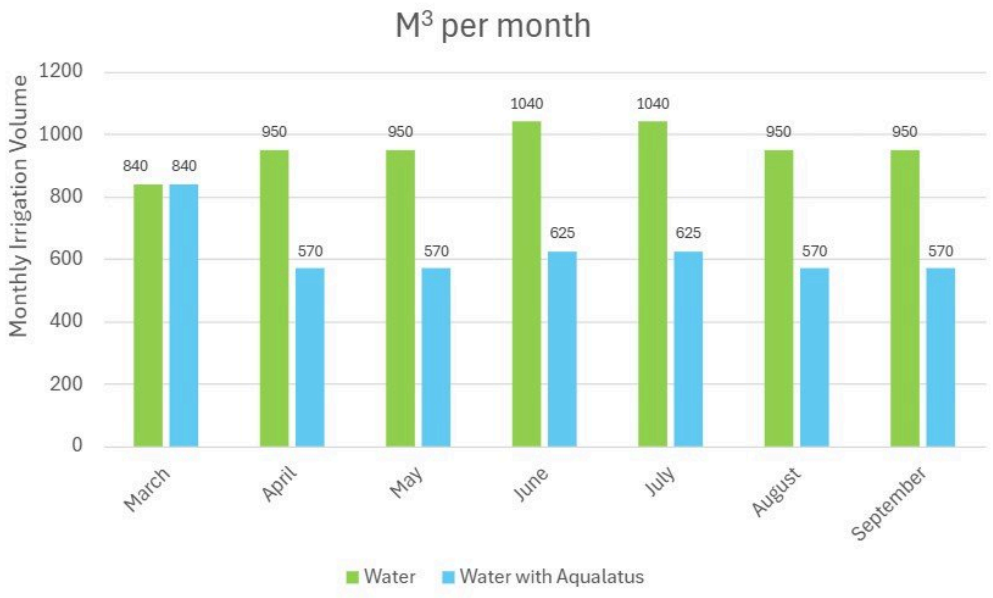
Aqualatus increased moisture levels across all groups even though irrigation levels were reduced. Overall, it was decided by Guillamon consulting that -40% irrigation offered the best balance increased moisture level with the saving in irrigation and fertiliser which was also reduced by 40%.

In this trial Aqualatus increased the average moisture level in the -40% irrigation by

33.5%

Peaches

Area | **Veria, Greece** Co-operator | Anthesis Plot size | **1 Ha**



Aim of study

To assess if Aqualatus soil water saving technology could reduce the level of water required to produce a high-quality crop over total crop period (7 months).

Application data

1st application –
2 litres per hectare after planting
2nd application –
2 litres per hectare 4 weeks later
Subsequent applications given at 1 litre per hectare at monthly intervals (total 8 litres).

Soil type & terrain

Sand loam flat terrain.

Irrigation

Main's water mixed with fertiliser and injected through plastic irrigation.

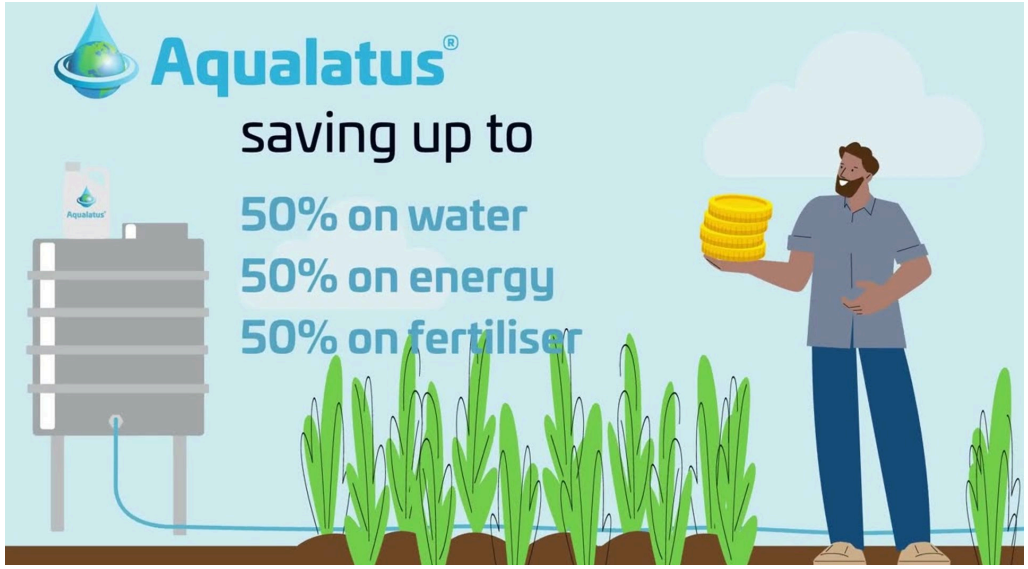
Conclusion from study

Aqualatus allowed a reduction in water application of 40%. This reduction allowed grower greater flexibility with their overall water allowance and saved the grower 40% in the cost of his water, fertiliser and energy with no loss in growth, yield or quality.

Aqualatus allowed a reduction in water application of

40%

anthesis
Blooming together



Watch video to learn more about Aqualatus

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Look out for New AG International November/ December 2025 issue for further Aqualatus Trial results.