



Introducing
AgriBubble

Innovation for the Agricultural Industry

by  **Bubble**
Nanobubble Innovations

A man with a short beard and a plaid shirt is smiling while holding a wooden crate filled with fresh strawberries. He is wearing yellow gloves. The background shows a greenhouse with rows of strawberry plants and another person working in the distance.

“Improving plant
life & increasing
plant yield”

AgriBubble

Innovation for the Agricultural Industry



Your Partner in Sustainable Growing

- *Knowledge and expertise in oxygen and nanobubble technologies*
- *Helping you to grow “green”*
- *Delivering chemical-free growth medium*
- *Scientifically proven methodology to produce strong and healthy plants*



Oxygen Content is a **Critical** Factor

- *Every plant needs oxygen in their root zone to grow healthy*
- *Excess oxygen boosts plant immunity; the plants won't get infected so easily*
- *Extra oxygen can be stabilised into water only by storing it to nanobubbles*
- **Water oxygen content (DO):**
 - *< 4 mg/l depleted (<35%)*
 - *5-8 mg/l normal (45-70%)*
 - *> 8 mg/l good (>70%)*
 - *18-20 mg/l enhanced with AgriBubble Technology*

Role of Oxygen in Irrigation Water

**“Fixing the cause
instead of trying
to eliminate
the symptoms.”**

Water based oxygen
is consumed by;

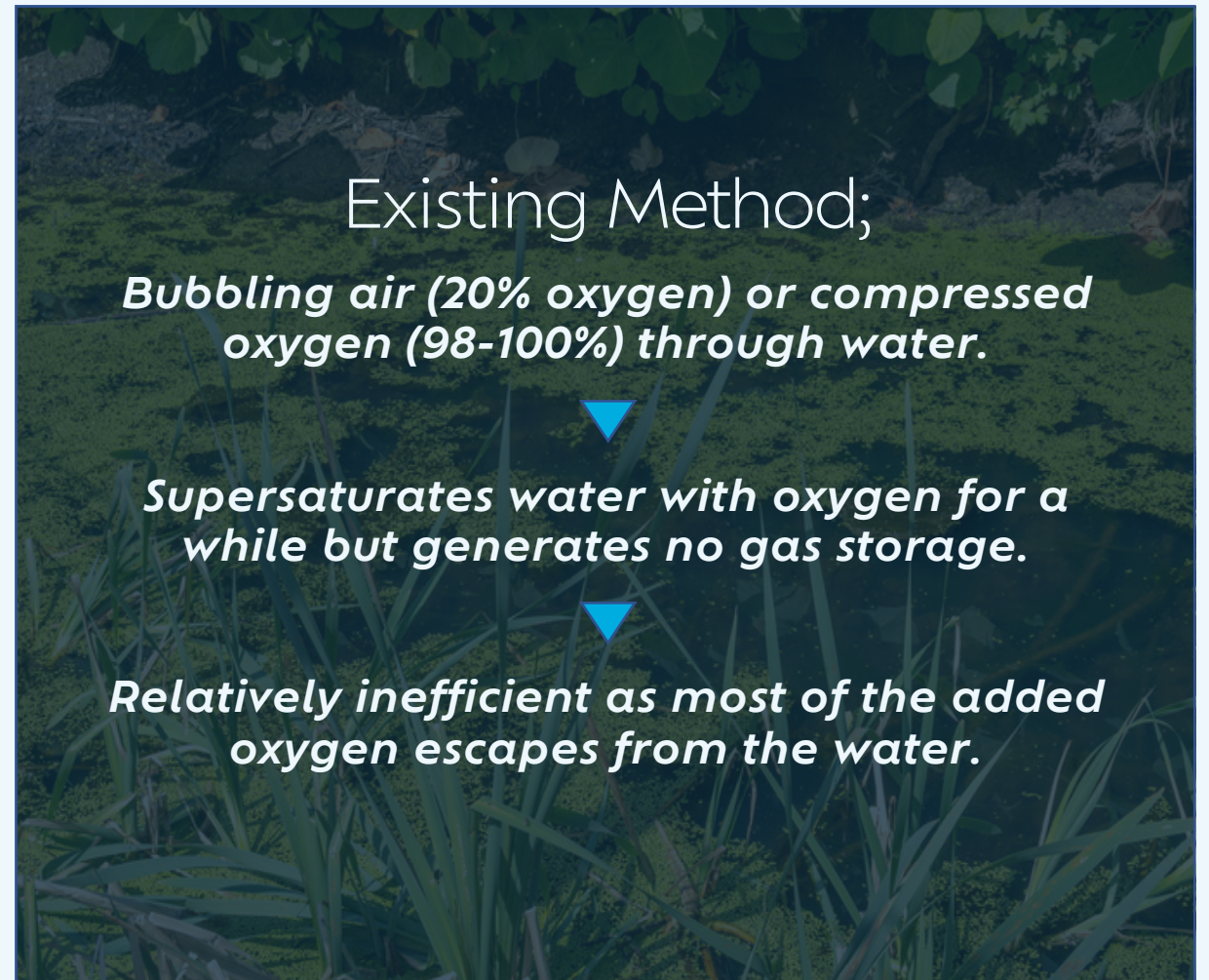
- *Vital functions of plants*
- *Healthy microbiome*
- *Organisms in water*

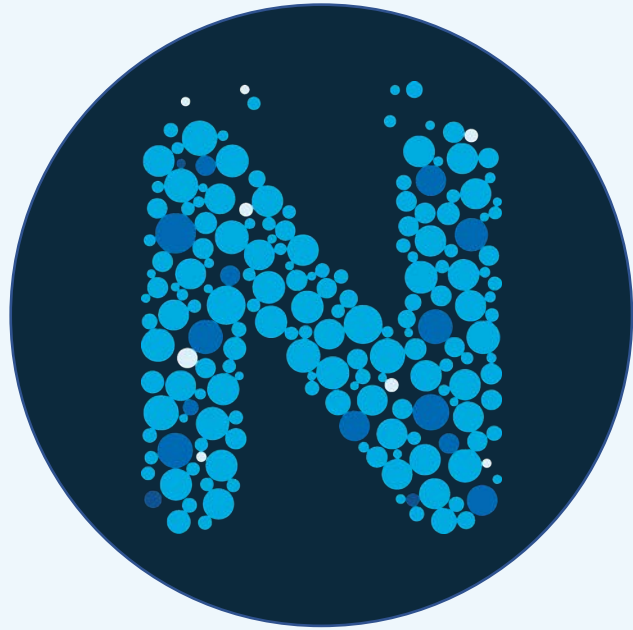
If not enough water based
oxygen is available for plants;

- *Decreased immune defence*
- *Growth of harmful microbes*
- *Disturbed nutrient absorption*
- *Plants are stunted and can die*

Dissolved Oxygen (DO)

- *Easily available for living organisms*
- *Relatively short in supply*
- *The higher the water temperature, the lower the DO content*
- *Oxygen is consumed by all living organisms growing in the water e.g. in irrigation water ponds*





Oxygen Gas Nanobubbles

- *Nanobubbles act like oxygen gas stores in water*
- *They provide a long-term oxygen supply*
- *As the dissolved oxygen is being consumed, more is released from the nanobubbles*

Nanobubbles as such have useful physical properties;

Improving nutrient absorption to plants



Decreasing biofilm growth in water systems



Limiting growth of harmful anaerobic bacteria

Improving plant life & increasing plant yield.



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Oxygen Nanobubble Generator

- *Harvests oxygen from the surrounding air and injects it into water*
- *Part of the harvested oxygen is dissolved (30%) and the rest is packed into nanobubbles*
- *Increases water-based oxygen storage at least by up to 350%*
- *Plug and play integration into automated irrigation and feeding systems*



Improving plant life & increasing plant yield.

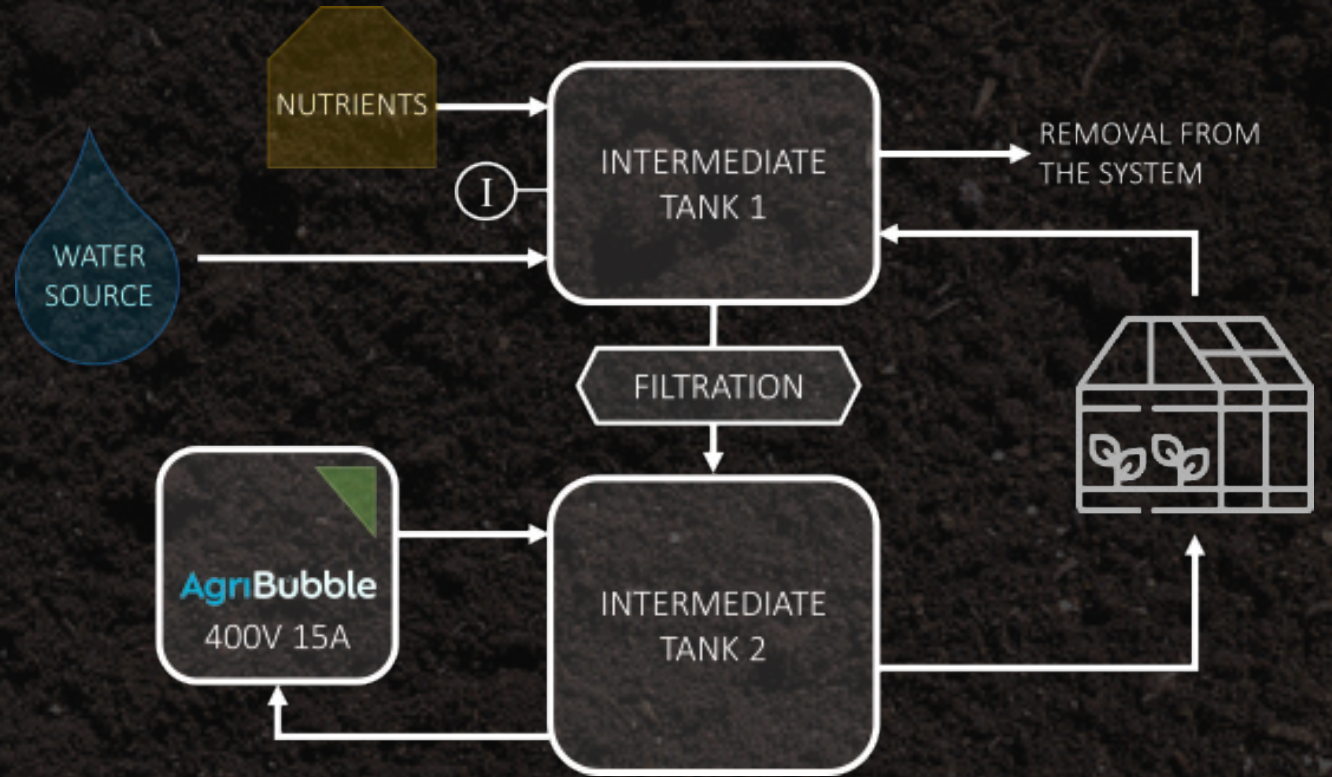


AgriBubble Installation

Circulating Irrigation Systems

Compatibility

- **Any water quality (special parts for brine)**
- **All crops**
- **All substrates and hydroponics**
- **All fertilizers**
- **Some chemicals might flotatae out**



Example of Energy Consumption

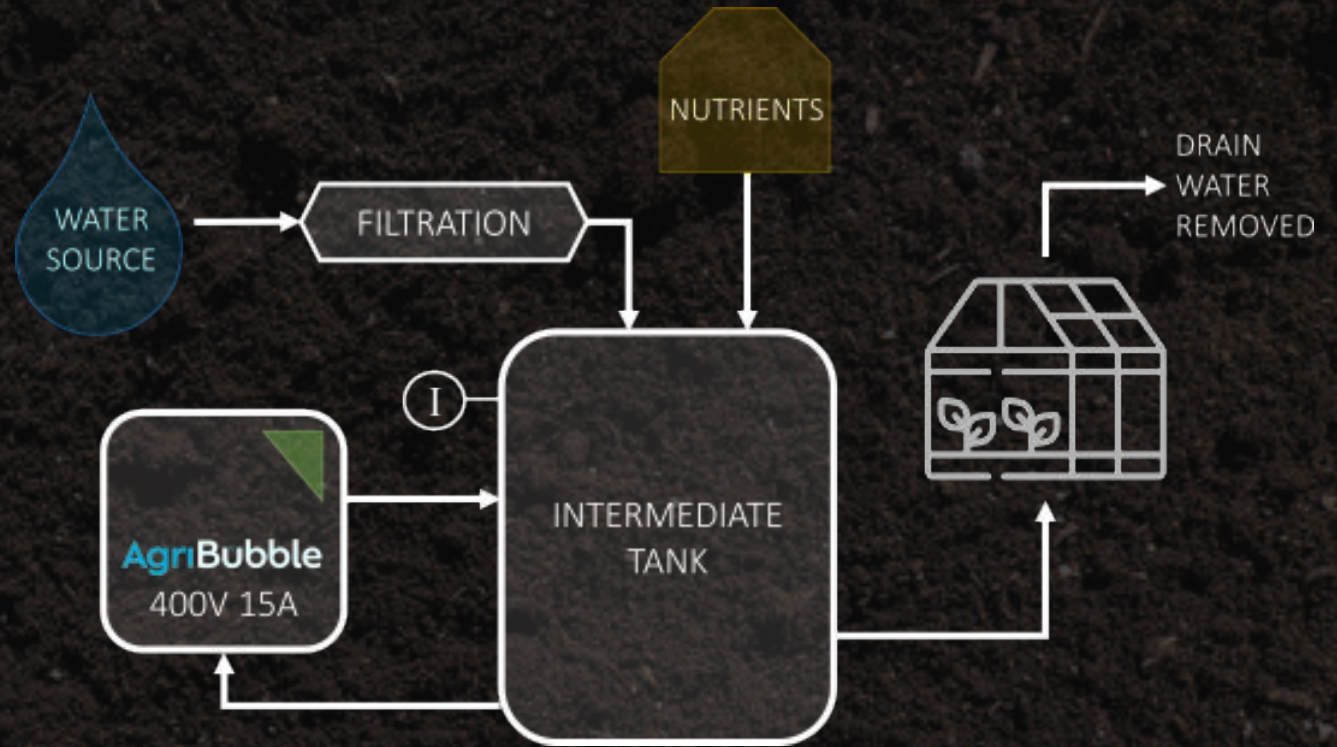
4m³ container of water, having initial oxygen content of 5 mg/l, is concentrated up to 20 mg/l oxygen content with 1 kW of energy.

AgriBubble Installation

Flow-through Irrigation Systems

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- **Any water quality (special parts for brine)**
- **All crops**
- **All substrates and hydroponics**
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Example of Energy Consumption

4m³ container of water, having initial oxygen content of 5 mg/l, is concentrated up to 20 mg/l oxygen content with 1 kW of energy.

AgriBubble

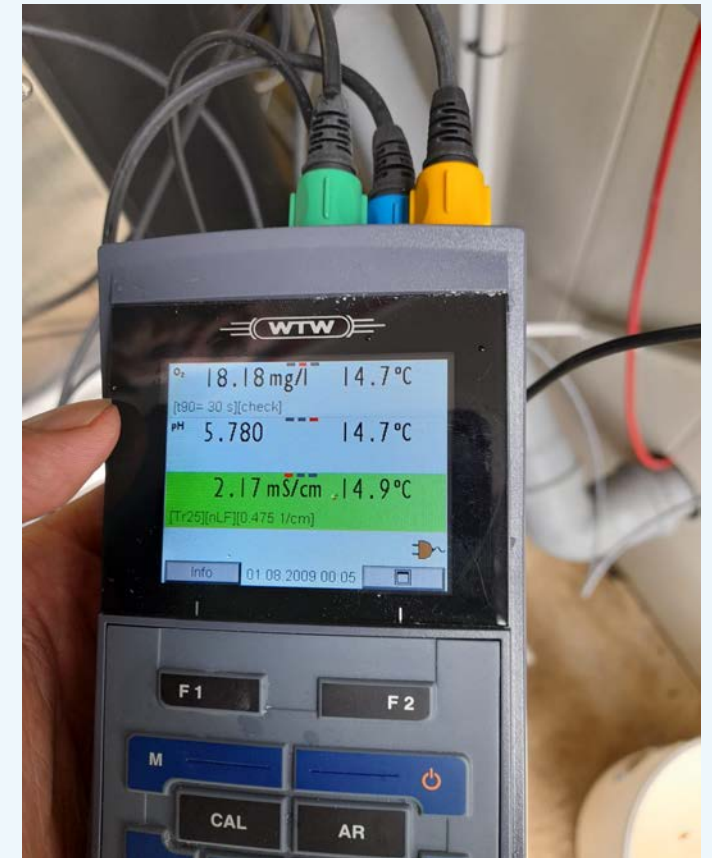
Innovation for the Agricultural Industry

AgriBubble™
Dissolved Oxygen
18,18 mg/l

Without AgriBubble



With AgriBubble



350% More Dissolved Oxygen

Improving plant life & increasing plant yield.





Improving plant life & increasing plant yield.





Improving plant life & increasing plant yield.





Improving plant life & increasing plant yield.



Clear Advantages

AgriBubble
Innovation for the Agricultural Industry

*Healthier
Plants &
Better Yield*

*Increased
Plant
Growth Rate*

*Decreased
Crop Loss*

*Invest
& Save*

*Less Stress
to Plants
& Farmers*

Improving plant life & increasing plant yield.



Thank You!



Bubble

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