

**PRACTICAL
AQUAPONICS**

...growing for life...



ENDORSED

RESEARCHED AND TESTED

BY

PRACTICAL AQUAPONICS SOUTH AFRICA



WELCOME TO THE WORLD OF MICRO AND ULTRA-FINE BUBBLES (MB/UFB)

ULTRA-OXYGEN

OPTIMIZING WATER QUALITY

"THE ULTIMATE SUSTAINABLE GLOBAL DISSOLVED OXYGEN SOLUTION FOR WATER"

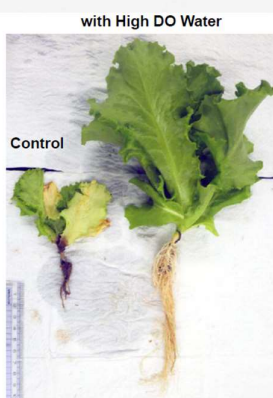
GREAT RESULTS WITH MB/UFB TECHNOLOGY CHEMICAL-FREE



Spinach



Basil



Lettuce

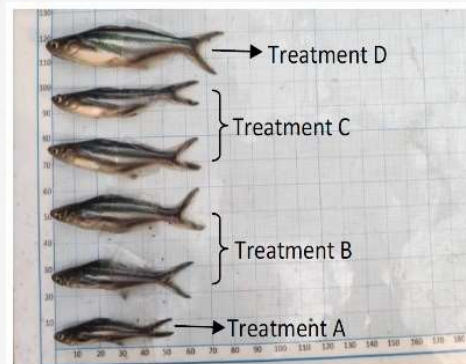


Fig. 1. Fish growth at the end of the study



BEFORE



AFTER

NEW CLASSIFICATION OF BUBBLES ISO/TC 281 – Fine bubble technology

- **EXTREMELY small gas bubbles** that have several unique physical properties that make them very different from normal bubbles.
- **MB/UFB generator creates bubble sizes of under 100 microns.**
- **The bubbles can shrink down by surface-tension** from 50microns to 300 nano mm.
- The Micro and Ultrafine bubbles are very high in density and will therefore **rise very slowly** with some not rising to the surface.
- The net effect is that UFB will **remain suspended in water for months until they dissolve**, traveling randomly throughout the body of water and efficiently aerating the entire water column.

SUPERIOR AERATION TECHNOLOGY

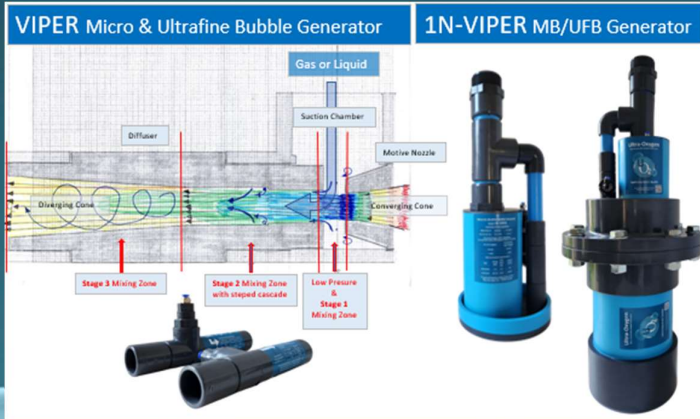
Ultra-Oxygen, the Water Solution division of Soldevco (Pty) Ltd, CR 2021/145973/07,

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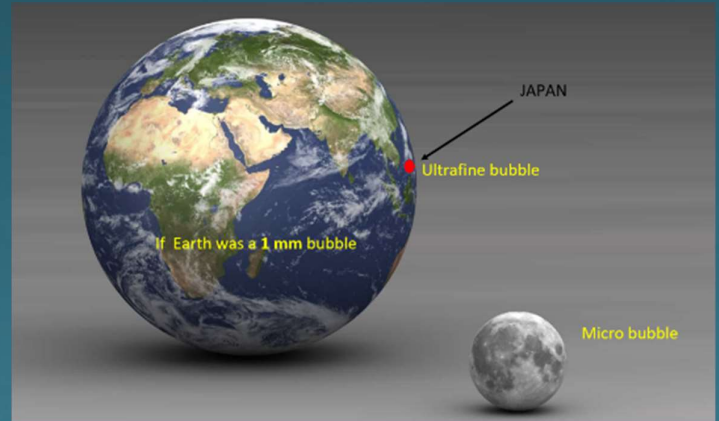
AQUAPONICS PARTNER – Practical Aquaponics (Pty) Ltd | Martin Fick | martin@practicalaquaponics.co.za | +27 83 278 4201 | 1 Kenton On Sea Rd, Salem, Makhanda, 6138

OUR MICRO & ULTRAFINE BUBBLE GENERATORS



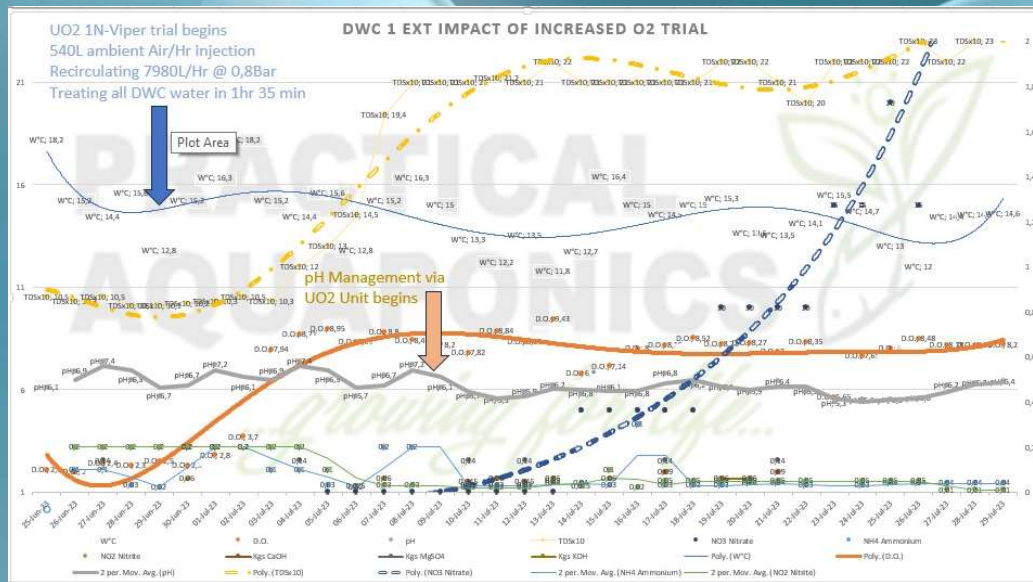
VIPER 30 & how it works

1N-VIPER & In-Line unit



How small is Micro and Ultrafine bubbles?

MB/UFB BENEFITS



Enhanced Water Quality

Up 315%
Dissolved Oxygen
Improvement.

Improved NO3 nitrogen

2 000%
Improvement.

Nutrient Availability

400%
Improvement

pH Fluctuation Risks

Little to None



Yield is affected by multiple variables that affect plant growth. One of the most important variables is water quality and dissolved oxygen levels. Ultra-Oxygen MB/UFB technology consistently increase yields across a variety of crops and cultivation methods.



Leverage one of the most cost-effective solutions to improve irrigation water quality and crop health. Reduce your reliance on chemical treatments or enhance their impact by supplementing with UO2-Micro and Ultrafine bubbles.



Reduce your risk of crop loss. Improve root health, suppress pathogens, increase nutrient uptake efficiency, and enable crops to better withstand environmental stresses with UO2 oxygen-rich water.

WHAT MAKES ULTRA-OXYGEN BUBBLES SO SPECIAL?

Micro and Ultrafine bubbles are not just any bubbles; they have a **charged surface that can perform electrochemistry and oxidative reactions**. It represents an **advanced aeration technology** that effectively oxygenates the entire water column, **offering** water treatment engineers and farmers the **unprecedented potential to attain remarkable outcomes**.

"IT IS ABSOLUTELY CRUCIAL FOR HUMANS TO **MANAGE OXYGEN IN WATER** TO ENSURE WE AS HUMANS CAN **LIVE IN HARMONY WITH NATURE**."

HEINDRÉ RADEMAN"



ULTRA-OXYGEN

OPTIMIZING WATER QUALITY FOR FARMERS

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