

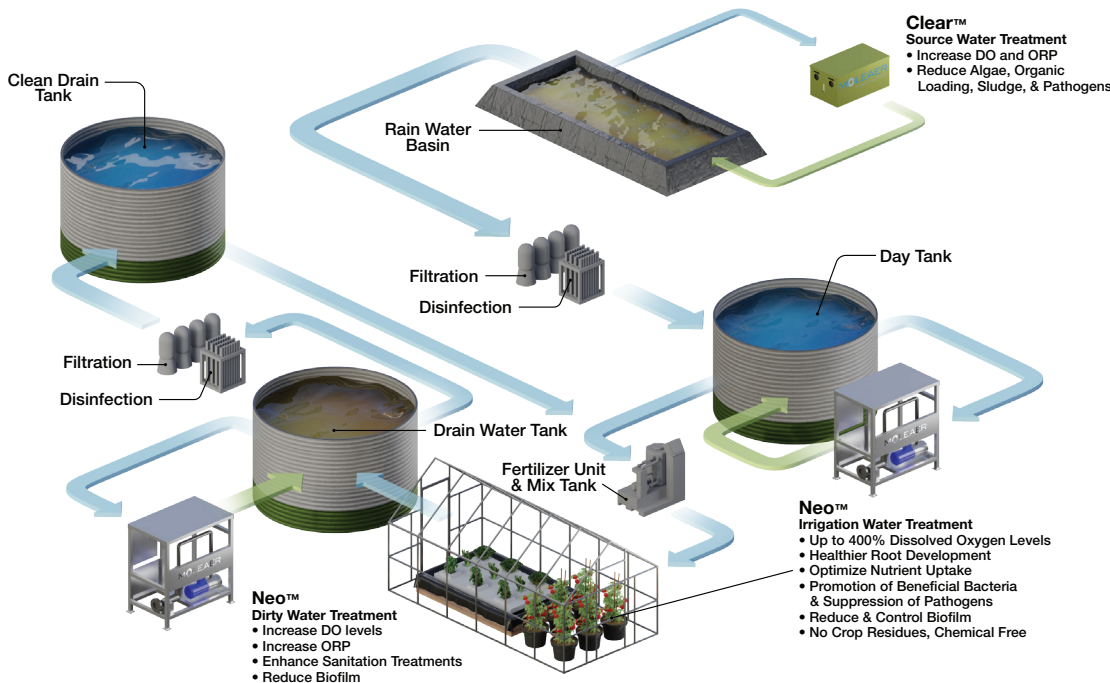


# HORTICULTURE

## About Moleaer

Moleaer produces cost-effective and proven solutions that increase productivity, reduce reliance on chemicals, and help restore balance to the environment through nanobubble technology. We partner with experienced engineering and innovation teams at world-renowned universities, including UCLA, Arizona State University, Clemson University, University of Pittsburgh, Wageningen University, and Virginia Tech University, to validate new applications of our nanobubble technology. Through these partnerships as well as over 450 installations across 32 countries on 6 continents, we have proven that nanobubbles can solve a wide array of challenges in the horticulture industry across the irrigation water cycle to improve crop health.

## Irrigation Water Cycle in Greenhouses



## Proven Horticulture Benefits

Moleaer nanobubbles efficiently enhance water in multiple stages of the growth cycle. Nanobubble enriched water has been proven to improve water quality and soil, root, and plant health while lowering treatment and oxygen costs. Many growers have also experienced increases in yield.

### Improved Water Quality

- Algae reduction in source water
- Reduced Pythium levels
- Metal oxidation
- Reduced reliance on chemical treatments
- Reduction of biofilm in irrigation pipes
- Increased dissolved oxygen in water with nearly perfect gas transfer to reduce oxygen costs

### Root, Soil & Plant Health

- Healthier root development
- Increased nutrient uptake
- Improved water retention in soil
- Improved vegetative growth
- Larger fruit size and yield



# Case Studies

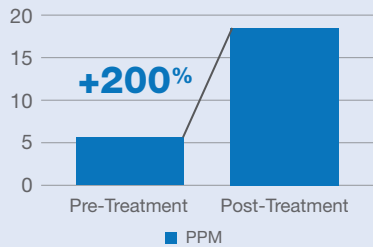
## Improve Water Quality

Increase DO, and reduce algae and biofilm

- Improve water quality and plant health in warm climates through effectively elevating dissolved oxygen with highest oxygen transfer, regardless of water depth.



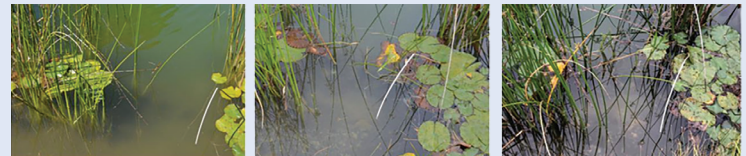
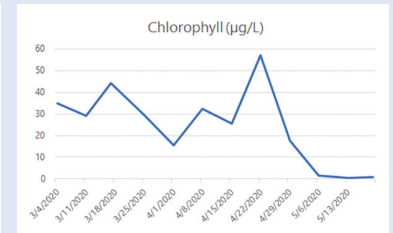
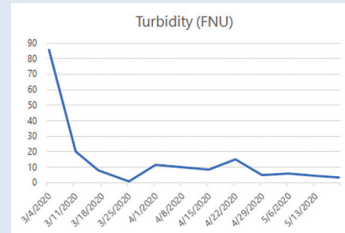
Impact on DO from nanobubbles on 35,000 gallon deep water culture ponds



- Eliminate or reduce algae and pathogens in source water through increased oxidation-reduction potential (ORP). Prevent and treat biofilm buildup in piping.

### 5M gallon irrigation pond

- Turbidity: Decreased by 50%
- Algae: Decreased by 99%
- Iron: Decreased by 50%
- Total Dissolved Solids: Decreased by ~20%

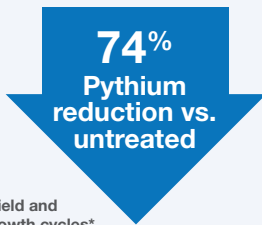


## Root, Soil & Plant Health

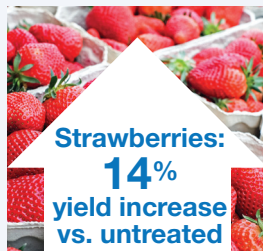
Better root health and nutrient absorption, suppression of plant diseases.



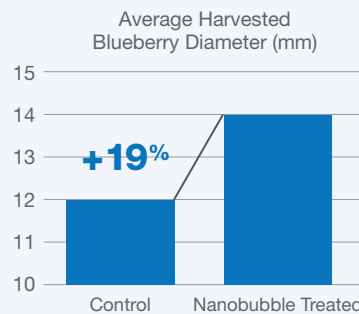
- Pythium counts: 74% lower in samples treated with oxygen nanobubbles (ONB) vs untreated control



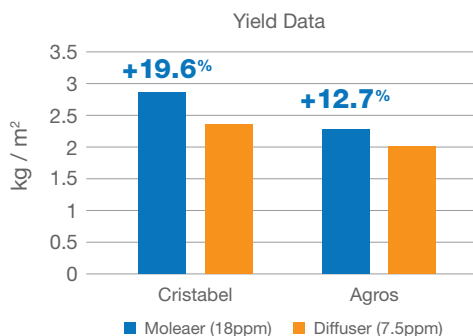
Increase yield and shorten growth cycles\*



- Blueberry plants irrigated with oxygen nanobubbles had healthier root mass and lower instances of disease



- Plants treated with ONB water showed significantly better vegetative growth
- Fruit size and quality was improved with ONB treatment



Crop	Seed to Harvest (Days)	Avg Weights (oz) Venturi 7.5 ppm Do	Avg Weights (oz) XT8 Nano 29 ppm Do	Yield Increase (29 ppm vs. 7 ppm)
Red Rubin Basil	31	0.5	0.69	38%
Italian Basil	44	1.5	2.25	50%
Arugula	49	2.18	3.4	56%
Red Butterhead	38	3.31	4.66	41%

\*Organic, bio-based nutrients may impact biofilm accumulation rates. The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. Moleaer assumes no liability for results obtained or damages incurred through the application of the information contained herein. Customer is responsible for determining whether the products and information presented herein are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice.

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