

NANOBUBBLES IN AGRICULTURE



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 and research institutions to validate new applications of our nanobubble technology. Through these partnerships as well as over 1500 installations around the world, we have proven that nanobubbles can solve a wide array of challenges in the agriculture industry across the irrigation water cycle to improve crop health.

Benefits of Nanobubbles for Agriculture

Plant Health

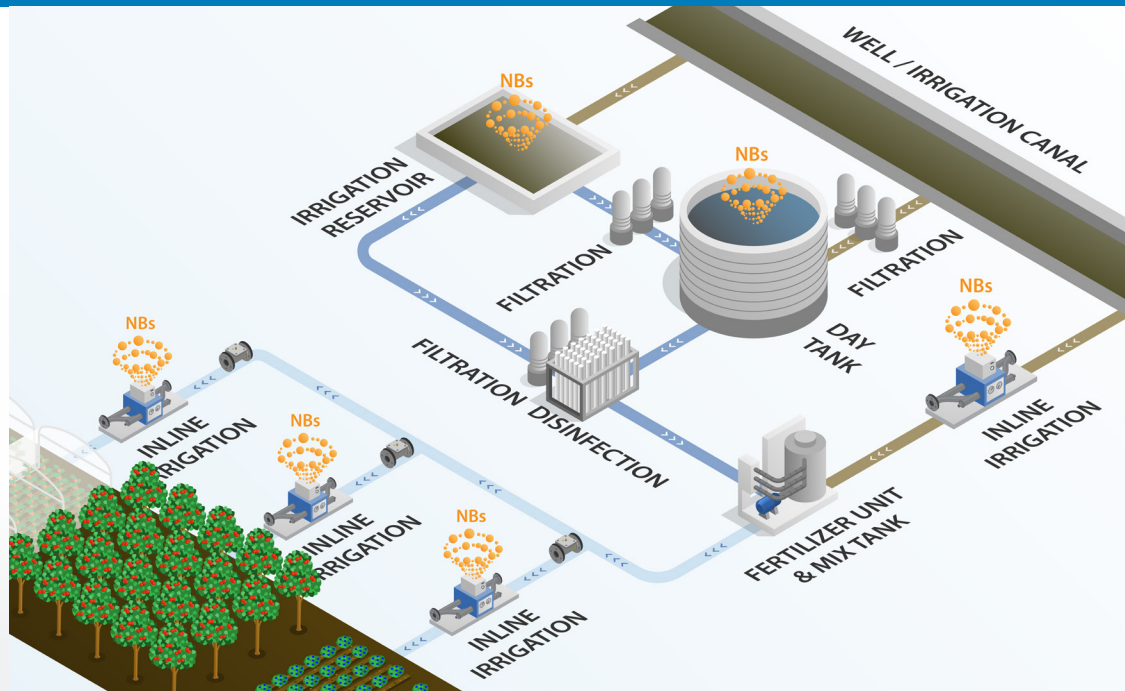
- Improve fruit size & quality
- Healthier root development
- Increase resilience to environmental stress

Soil Health

- Increase infiltration & salts leaching
- Reduce compaction
- Promote microbiome

Water Quality

- Reduce water surface tension
- Control pathogens & algae
- Prevent biofilm & blockages



Nanobubble Solutions

MODELS	CLEAR	NEO	NEXUS	TITAN
Applications	Reservoir	Reservoir, Water Tank Recirculation	Reservoir, Inline Irrigation	Reservoir, Inline Irrigation
Liquid Flow Rate (GPM and m ³ /hr)	50-150 GPM 11-34 m ³ /hr	50-250 GPM 11-57 m ³ /hr	200-1000 GPM 45-227 m ³ /hr	500-5000 GPM 114-1136 m ³ /hr
Total Energy Consumption (kW)	1 – 3.2	1.1 - 4	N/A	Based on Customer Specifications
Gas Options Air = 20% O ₂ Onboard Oxygen = 93% O ₂ External Oxygen = 100% O ₂	Compressed Air	Onboard Oxygen Ozone	Compressed Air External Gas Source	Compressed Air Optional Gas Skid

Root, Soil & Plant Health

Reduce surface water tension in order to improve water infiltration and uniformity

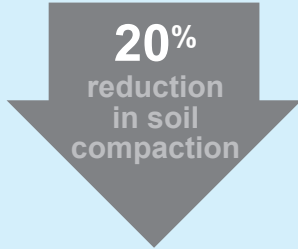


Blueberries

Neo 50 on day tank



- 17% improvement in fruit calibers
- 13% increase in new shoot growth



Cherries

NEO 250 O₂
53K-gallon (200 m³) reservoir



- Improve caliber distribution, only 10% of fruits in the medium-small size
- Enhance root development

“We strongly believe that nanobubbles, in combination with soil amendments and microbes, such as mycorrhiza, have improved the soil structure, which can be seen in improved and new root development, better water infiltration and water retention.”

– Juan Pino, Production Manager

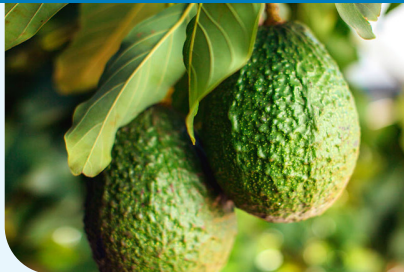
Boost Water Quality

Oxygen nanobubbles improve crop calibers and yields

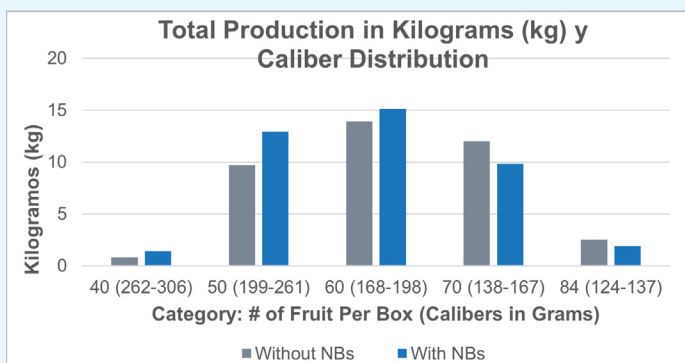


Avocados

Nexus 50 Inline

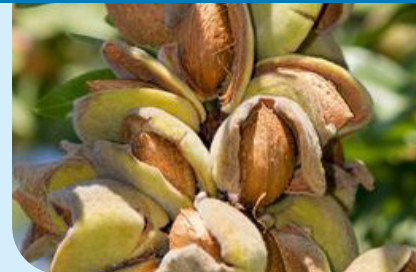


- 40% production increase in fruit caliber ≥ 50 (199+ grams)
- 6% total production increase
- Significant improvement in plant vigor



Almonds

Nexus 250
6.6-million-gallon (25,000 m³) reservoir



- 27% cumulative production increase of fruits over 25/27 (13 mm) caliber
- 61.3% production increase in the nonpareil variety
- Significant improvement in spur and shoot renewal

