

NICO AGNIROOT NANOBUBBLE SYSTEM PRECISION OXYGENATION FOR MODERN HORTICULTURE

NICO AGNIROOT Nanobubble System enhances irrigation water with ultra-fine nanobubbles, significantly improving dissolved oxygen levels to create an optimal root-zone environment. This leads to stronger root systems, better nutrient uptake, and improved overall plant health and productivity.

By improving water quality and disrupting biofilm formation, Agniroot helps suppress harmful pathogens such as Pythium and Phytophthora, reducing dependency on chemical treatments while supporting sustainable horticultural practices.

Challenges In Horticulture

Modern horticulture faces several irrigation and root-zone challenges that directly impact plant growth, productivity, and crop quality.



Low Dissolved Oxygen in Root Zone

Leads to weak root development and reduced plant growth.



Soil-Borne Pathogens

Diseases like Pythium and Fusarium impact crop health and yield.



Poor Nutrient Uptake

Limits plant efficiency and affects overall productivity.



Biofilm & Algal Growth

Clogs irrigation systems and degrades water quality.



High Chemical Dependency

Increases cost and environmental impact.



Inconsistent Crop Yields

Due to unstable root-zone and irrigation conditions.

Why NICO AGNIROOT?

NICO AGNIROOT delivers advanced nanobubble-based oxygenation directly into irrigation systems, creating a highly oxygen-rich and stable root environment. Its ultra-fine bubbles enhance oxygen transfer efficiency, improve water structure, and ensure deeper root penetration and healthier plant development.

The system integrates seamlessly into existing irrigation infrastructure, offering a chemical-free, energy-efficient solution for improving crop performance. With high gas transfer efficiency and nano-scale bubble size, AGNIROOT ensures consistent, scalable, and sustainable horticultural productivity.

- ✓ Advanced nanobubble-based oxygenation
- ✓ Improves root-zone oxygen availability
- ✓ Enhances nutrient uptake and plant development
- ✓ Reduces biofilm formation and harmful pathogens
- ✓ Chemical-free and energy-efficient operation
- ✓ Easily integrates with existing irrigation systems

Key Application Areas



Greenhouses & Polyhouses

Enhances controlled environment cultivation with improved root oxygenation.



Hydroponics & Vertical Farming

Optimizes nutrient solution oxygen levels for faster growth cycles.



Nursery & Seedling Production

Supports strong early-stage root development and plant vigor.



Fruit & Vegetable Cultivation

Improves yield, quality, and resistance to stress conditions.



Floriculture Operations

Enhances flower quality, longevity, and consistency.



Controlled Environment Agriculture (CEA)

Ensures stable and efficient crop production in advanced farming systems.



ISO Certified Quality Standards



Global Presence



Customizable, Application-Specific Solution

Empowering Sustainable Horticulture Through Advanced Oxygenation Technology.

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