



## Irrigation Water Choosing the Right Water Treatment Solution

Irrigation water is the lifeline of your crops. Keeping it clean, safe, and free from pathogens and biofilm is essential for healthy plant growth and optimal yields. Various oxidation methods are available, each with different strengths and limitations.

### Key factors in water treatment

#### Full-system reach

Does the treatment remain effective throughout the entire irrigation system?

#### Safety for plants and people

Can it be used without risking crop damage or worker safety?

#### Byproducts

Does it leave harmful residues in the water, soil, or equipment?

	UV	Ozone	Chlorine	Industrial Peroxide	Onsite Peroxide UltraPure™ Generation
Downstream effect	⊗	⊗	☑	☑	☑
No byproducts after use	☑	⊗	⊗	⊗	☑
Increased oxygenation	⊗	☑	⊗	☑	☑

**UV** is highly effective at treating water and controlling organic matter, but its effect is entirely local and cannot remove stubborn biofilm from irrigation lines or emitters. It is generally safe, though direct exposure can be dangerous to humans and plants. UV leaves no byproducts.

**Ozone** is highly reactive and unstable, making it effective at water treatment but only at the point of contact, not system-wide. As a toxic gas, it is safe when applied correctly, but dosing is difficult and influenced by factors such as water temperature. It leaves chemical residues that can harm the root zone.

**Chlorine** treats all irrigation water, not just locally, but is less effective than other methods and can be dangerous to humans and plants if misused. Like ozone, it leaves chemical byproducts that damage roots and require extra treatment to remove.

**Stabilized peroxide** treats all irrigation water effectively and is generally safe, but contains additives for transport and shelf life that remain as harmful byproducts.

**Onsite-generated hydrogen peroxide (Peroxide UltraPure™)** offers a clean and sustainable alternative. Produced directly from water, air, and electricity, it effectively controls biofilm throughout the entire irrigation line and decomposes into water and oxygen after use—leaving no residues or byproducts behind.