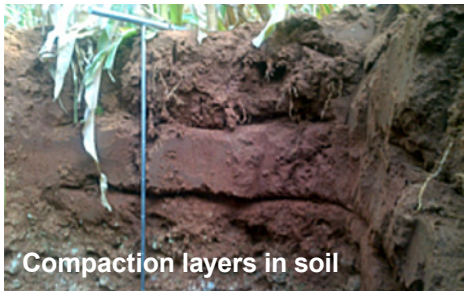
Is your irrigation water working against you?


Saline and contaminated water


Dirty irrigation systems


Compaction layers in soil

Did you know?

Puricare offers the global agricultural sector the most advanced irrigation water treatment solution to address the growing problem of deteriorating water quality. Irrigation water from rivers, dams and boreholes has become more contaminated with chemicals, bacteria, chlorides, salts and various heavy metals. Poor water quality has a direct impact on irrigation system efficiency, harms the soil, poses a major threat for food production and farmers struggle to find cost-effective solutions.

Puricare's innovative water treatment technology solves these problems without sterilizing the water. The specialised **Puricare Advanced Oxidation Process (P-AOP)** has no harmful effect on equipment, water, soil or crops. In fact, by optimizing the water, it benefits all and aligns perfectly with sustainable farming practices.

The **P-AOP** has not only been scientifically researched but has also been practically proven where it matters most: on operational farms. Puricare has consistently achieved the same results - satisfied clients with clean and efficient irrigation systems making the most of their available water.

Countries
Puricare technology has been proven in more than **10 countries**, on four continents

Farms
Over 300 operational farms have implemented Puricare technology

Area
Around **50,000 hectares** of land receive Puricare treated water

Water
More than **400 billion litres** of water is treated by Puricare technology yearly

The Puricare Unit has stood the test of time:

- **There is no limit to the volume of water that can be treated**
- **Affordable once off capital outlay per hectare**
- **Easy to install on existing irrigation systems**
- **Life expectancy of more than 10 years**
- **Low monthly running costs**
- **Effortless to manage**

Optimize water quality

Clean irrigation system

Reduce soil compaction

P-AOP
(Puricare Advanced Oxidation Process)

Puricare water treatment will make your irrigation water work for you!

Optimize water quality - make your water work for you!

The **P-AOP** causes the following **chemical, biological & physical changes** in irrigation water:

- Water pH is slightly buffered towards neutral.
- Effects of saline water are reduced (calcium & magnesium ions are shielded from salt formation & the ability of carbonates to form salts is reduced).
- Treated irrigation water has higher concentrations of CO_2 & O_2.
- Chlorides & heavy metals (e.g., iron & manganese) are oxidized to less available forms reducing toxicity.
- Oxidized particle or precipitate sizes are reduced to a nanoscopic scale & pass through filters & drippers.
- Toxic chemicals from industrial, agricultural & sewerage waste are broken down into less harmful forms.
- Cell walls of waterborne microorganisms are broken down.
- Turbidity is reduced & organic matter is broken down.

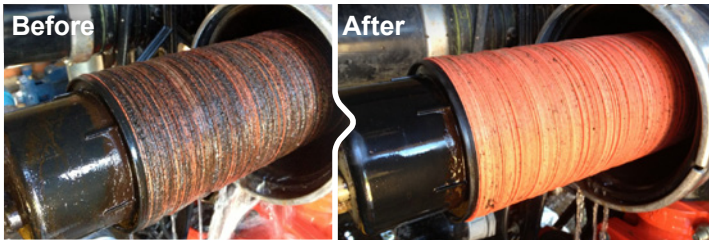
Clean irrigation systems - make your system work for you!

The source & quality of irrigation water determine the amount of physical, biological & chemical sediment or scale deposited and encrusted in your filters & irrigation system, and the cleaning & management requirements thereof.

Various combinations of silts, clays & organic matter (physical sources); bacteria & algae (biological sources); salts & minerals (chemical sources) in the irrigation water form these deposits. They create a lining in the irrigation pipes & can cause partial or complete plugging of the emitters.

- **Uniform water & fertilizer delivery**
- **Less flushing & backwashing required**
- **Cost savings in labour & maintenance**
- **Automatically & continuously cleaned system**
- **Increased lifespan & less replacement expenses**

The **P-AOP** works in the water delivered by your irrigation system & acts directly on the biological & chemical deposits, completely breaking them down & inhibiting any further deposit formation, keeping the irrigation system constantly clean in an environmental friendly manner.



Reduce soil compaction - make your soil work for you!

Excess salts in your irrigation water cause soil compaction & soil fertility imbalances. It is very difficult to address these problems with standard agricultural inputs. If you do not treat your irrigation water, you are fighting an uphill battle.

The various natural chemical reactions induced by the **P-AOP** in the irrigation water will percolate into the soil solution & soil. Clay swelling is reduced by calcium displacement of sodium on clay particles, pore size between soil particles increases & soil aeration is improved. At the same time, soil biology begins to work and all these natural processes promote soil & crop productivity.

Unlock

- **Deeper & more prolific feeder root growth**
- **Improved water infiltration & water use efficiency**
- **Increased mineral availability & better base saturation ratios**
- **Restored soil health & improved water holding capacity**
- **Enables other agricultural inputs to work more effectively**

Contact Puricare and unlock the potential of your irrigation water!

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Puricare®