



# EcoClear<sup>PROX</sup>

## **A clear solution.**

EcoClearProx is the novel solution for our disinfection needs. It takes purity, ecological footprint, and effectiveness to 100%.

"We must shift our thinking away from short-term gain toward long-term investment and sustainability, and always have the next generations in mind with every decision we make."

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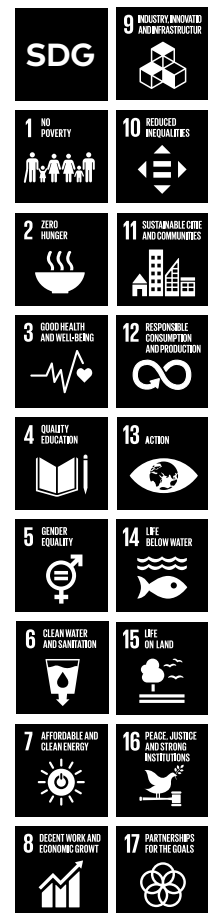
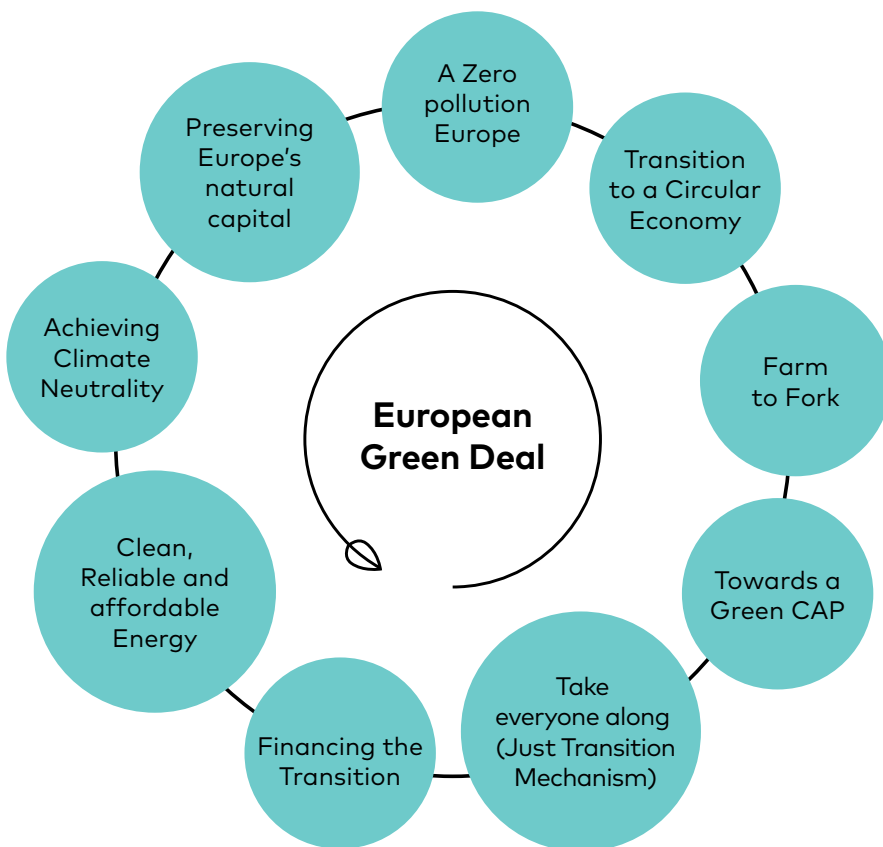
**Deb Haaland**



# EcoClear<sup>PROX</sup>

100% Ecologic  
100% Effective  
100% Cost-Efficient

# Rethinking the Product Segment.



Many chemicals can harm the environment and human health, interfere with ecosystems and weaken human resilience. As a result, a global shift towards sustainable products supporting a toxic-free environment is taking place.



# EcoClearProx<sup>®</sup>

## Key Facts.

EcoClearProx provides a solution for minimizing adverse impacts on human health and the environment.

		 <b>100% biodegradable organic hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) solution</b>
 <b>100% food-grade quality</b>	 <b>High stability solution without addition of silver or peracid</b>	 <b>Registered for a broad spectrum of applications (PT2- PT5)</b>
 <b>High efficacy for eradication of bacteria, viruses, yeasts, fungi and spores</b>	 <b>Manufactured under GMP-plus and ISO- norms</b>	 <b>Less environmental impact than comparable biocidal products</b>

# Future Proof. Better Results. Less Harm.

An increasing number of studies are raising concerns about health and environmental risks associated with nano-silver. As a consequence, regulatory rules have been made stricter and will continue to be tightened. Recent studies have shown that silver affects soil properties, microorganisms, and plants – therefore increasing toxicity for living organisms, including humans.

## Link to Studies



Reported effects of silver on tomato, corn, rice, beans and other plants included, amongst others:

- significant decrease in fresh weights, root elongation, shoot and root development
- reduction in fruits' productivity
- significant decrease in root growth
- delay in flowering, decrease in petal development and vegetative growth, and pollen viability

Studies have also shown that exposure to Silver Nanoparticles resulted in accumulation of silver in tomato plants and affected the vascular tissue structure with impact on the balance of water and nutrient dynamics, and plant growth. EcoClearProx is a stabilized hydrogen peroxide solution without addition of silver and has no negative implications for sustainable agriculture and ultimately human health.



### Validated stability

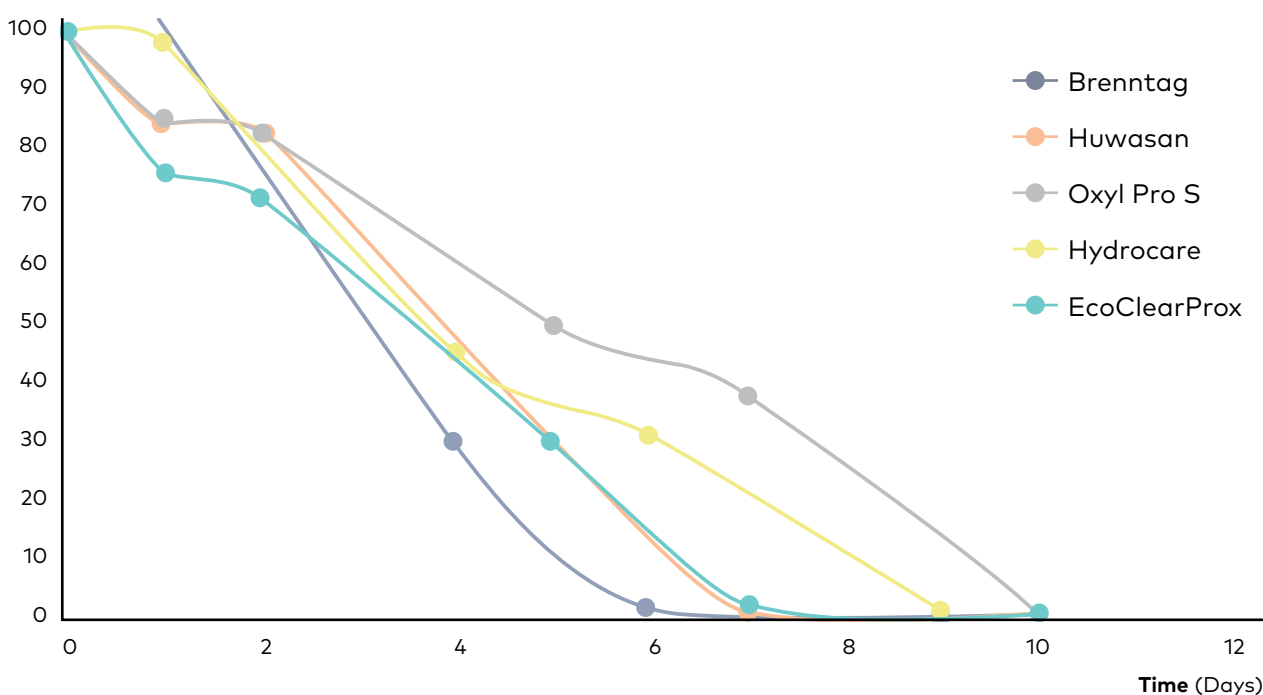
Independent comparison with other Hydrogen Peroxide products on the market has shown that EcoClearProx comes with a beneficial combination of rapid reaction and stability. ECP reacts faster with contaminants in the water while it remains very stable if no contamination is present. The advantage of ECP's stability is particular evident on farms where the crop is young and there is little irrigation as ECP does not degrade.

### Report stability peroxide 2018, Proefstation voor de Groenteteelt

Product	Producer	Concentration (%)	Stabilizer
Brenntag hydrogen peroxide	Brenntag NV	27,5	No additional stabilizer
Huwasan TR-50	Roam Technology NV	50	Silver (AG)
Intra Hydrocare	Intracare BV	50	Silver (AG)
Oxyl-Pro-S	Cindro BV	50	Silver (AG)
EcoClearProx	TMRW Eco BV	42	Non-Silver stabilizer

### Percentage of residual concentration of hydrogen peroxide in polluted water (pond water)

Residual Concentration (%)



# EcoClearProx<sup>®</sup>

noun [ U ] CHEMISTRY

meaning: Versatility

EcoClearProx is an eco-friendly alternative solution for disinfection, decontamination, and pathogen control in various industries.



## 01

Agriculture



## 02

Water Treatment



## 03

Disinfection



01

Agriculture

# Sustainable Water Supply and Irrigation





## Agriculture

Irrigated agriculture remains the largest user of water globally as irrigation accounts for 70% of water use worldwide. But clean water supply is becoming increasingly challenging due to climate change and pollution. In addition farmers in many regions will face increasing competition from non-agricultural users due to rising urban population density and water demands from a growing energy and industry sector.



### Access Alternative Water Sources

EcoClearProx comes with excellent disinfection capabilities and enables growers to use alternative water sources. For example, it can be used to purify wastewater from sewage treatment plants for irrigation in agriculture and horticulture. With water tariffs having increased up to 15% across Western Europe over the last couple of years, growers save costs without compromising the quality of their produce.



### Eliminating Biofilm

It has proven to be very effective in removing and preventing biofilm formation in extensive irrigation systems. This ensures only high quality water delivery to the plants. Additionally, it helps to prevent additional costs due to released biofilm clogging irrigation lines and emitters, which leads to extra labor, crop shrink, and irrigation equipment costs.

EcoClearProx is the product of choice when it comes to circular or closed-loop-systems. Unlike many other products, it does not result in any concerning by products that might accumulate with subsequent treatment cycles.

### **Aquaculture**

Water quality is very important in fish farming as poor quality water can affect the health and growth of the fish. Impaired water quality in aquaculture stresses aquatic animals and makes them more susceptible to infectious diseases. Fertilizer- and feed-waste effects on water quality frequently leads to dense algal blooms with severe productivity losses.

With a very effective disinfection ECP ensures quality water supply. It supports biosecurity measures to prevent disease outbreaks.

ECP can be applied prophylactic and therapeutic against diseases like white spot disease or shellfish toxicity due to *Dinophysis* spp.



### **Pest Management**

Agricultural science plays a vital role in meeting the growing global demand for food and nutritional products. With up to 33% of crops lost annually due to diseases, insects pests and weeds on a global basis, farmers must take proactive measures to protect or cure plants.



EcoClearProx provides an effective and eco-friendly solution to treat and prevent various pests and horticultural diseases.

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## Food

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Crops

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Broccoli, Cauliflower, Cabbage

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Citrus

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Tomatoes

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Apples

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Filberts

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Grapes

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Cucurbits

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Onions

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Peppers

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Potatoes

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Seed Potatoes

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## Disease

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Anthracnose, Downy Mildew, Powdery Mildew, Rust

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Alternaria Leaf Spot, Downy Mildew, Powdery Mildew

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Rust, Scab, Powdery Mildew, Brown Rot, Phytophthora

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Anthracnose, Cladosporium, Mold, Early Blight, Late Blight, Powdery Mildew

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Rusts, Scab, Powdery Mildew

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Eastern Filbert, Blight, Bacterial Blight

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Botrytis, Downy Mildew, Powdery Mildew

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Alternaria, Anthracnose, Downy Mildew, Powdery Mildew, Pythium Rot

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Botrytis, Downy Mildew, Powdery Mildew

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Anthracnose, Phytophthora, Blight, Powdery Mildew

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Early Blight, Late Blight

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Fusarium

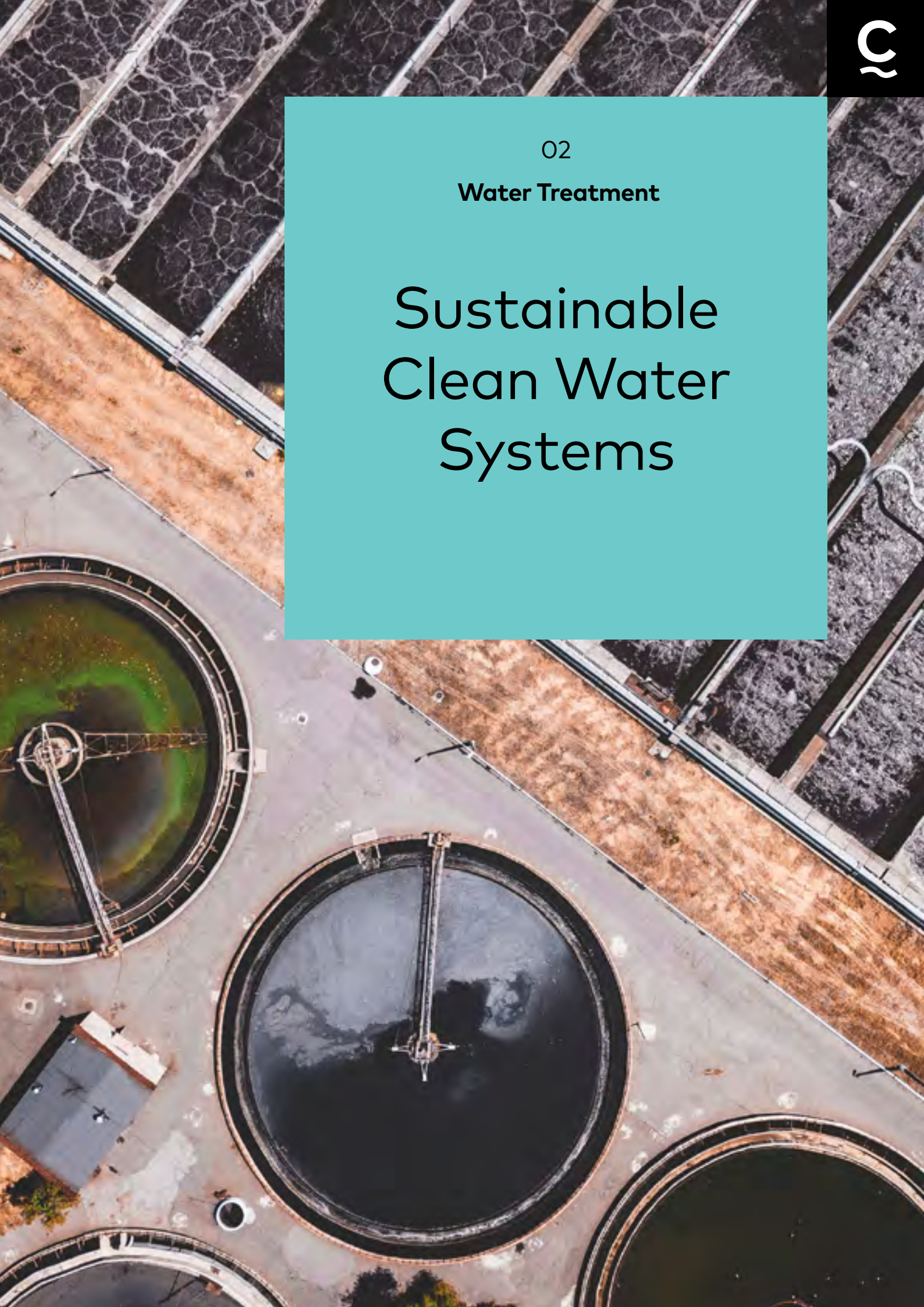
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02

Water Treatment

# Sustainable Clean Water Systems





## Water Treatment

Water is a vital resource used not only for human consumption, but also for industrial processes, and domestic use. Bacterial growth within piping systems and processing equipment can have a significant impact on equipment and water supply, e.g. corrosion, performance loss, and health issues.



### Prevent Bacterial Growth

EcoClearProx effectively eliminates and prevents bacterial growth in water and systems, keeping maintenance costs low. Its strong disinfection and purification capabilities enable potable reuse, stormwater capture, and agricultural reuse.

ECP enables industries to use water more efficiently. Its purifying capabilities support efforts to keep water quality compliant with increasingly strict regulations, while lowering CAPEX related to wastewater treatment.



### Food Processing

Food processing requires large amounts of water of varying quality for many different purposes. Water is used in direct contact with the food or food contact surfaces as well as indirectly as a processing aid.

ECP managing water quality is a necessity in food processing plants not only to avoid water and food-borne diseases but as well to maintain efficient production operations in the plant (e.g. cooling, heating or cleaning).

Biofilms can exist on all types of surfaces in food plants i.e., plastic, glass, metal, wood, food products. Thus, undesirable biofilms formation can build up about anywhere in a food processing plant. EcoClearProx eliminates and prevents Biofilm formations in the food production plant.

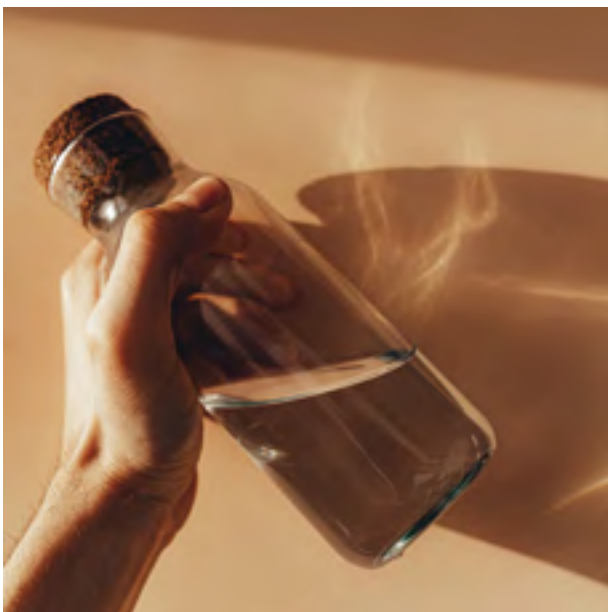


### Rainwater Harvesting

Rainwater harvesting provides a valuable supplement to existing water supplies by reducing demand on community water supplies/infrastructure costs, enhancing effective management of storm water runoff.

Even though rainwater is essentially pure water, it can quickly become contaminated with airborne bacteria, fungal spores and similar microbiological life forms and these will also be present in harvested rainwater. Rainwater, which comes into contact with fecal matter, will become contaminated with enteric coliform bacteria. As well, studies have shown that pathogenic bacteria like *Legionella* spp which are commonly found in rainwater.

Applying EcoClearProx to cisterns and collection tanks to treat the stored water will eliminate contaminants and allows risk-free use of rainwater.



### Drinking Water

Livestock farmers are confronted with a broad spectrum of challenges. In this context, managing water supply and water quality becomes increasingly important.

Water is the one most important nutrient required by livestock. Decreased intake can adversely affect health, reproduction and growth. Water contamination by Bacteria and viruses can have severe impact livestock. Thus, Effective cleaning and disinfection protocols is a key factor in disease control when it comes to lowering the risk of losses caused by diseases and keeping productivity levels high.

ECP eliminates pathogens and bacteria and keeps in piping systems, drinking water and equipment. With that it prevents costly disease incidents and ensures the water quality needed for increased livestock production and feed efficiency and reduces the need for antibiotic use.

# Greener Disinfection

## Disinfection

Antibiotic resistance is an increasing threat to human health. With that disinfection measurements for surfaces and medical instruments are an important part of hygiene in hospitals to mitigate nosocomial infections. In addition, water treatment becomes imperative, because hospital wastewater contains elevated levels of residues, pathogens, chemical reagents, radionuclide, and other harmful matter and therefore provide conditions that promote the evolution of new forms of antibiotic resistance.



### **Pathogen control**

EcoClearProx provides an effective solution for water systems, hygiene and infection prevention in hospitals and pharmaceutical laboratories.

It is an affordable, effective method of disinfecting hospital sinks, medical instruments and surfaces

ECP eliminates harmful bacteria and microorganisms in wastewater and eliminates/ prevents biofilm formation in the water system.



### **Surface cleaning and disinfection**

Many potentially infectious bacteria, viruses, yeasts and moulds can survive on surfaces for considerable amounts of time. Sometimes it takes just a small but frequently used button to spread e.g. multi-resistant bacteria. Effective surface disinfection inactivates pathogens on inanimate surfaces and in turns works to prevent the spread of bacteria from person to person or object to object. Thus, surface disinfection is a proven method of disease prevention and control and is good practice for general hygiene.

While wipe disinfection is limited to the germ reduction of surfaces, aerosol disinfection enables an even distribution throughout the room and can eliminate bacteria, viruses and spores in the air and on surfaces that are difficult to reach e.g. remote corners and cracks.

EcoClearProx has strong disinfection capabilities and proven effectiveness with validated log6- reduction when tested in accordance to EN17272.



# Our Mission and Vision.

## **Elevating Quality of Life**

People's health, animal wellbeing and a healthy environment are part of the same equation.

We want to challenge the business-as-usual thought process and become a driving force behind a bold shift towards sustainability and a circular economy.

Our products and solutions are non-toxic to the environment, support access to clean water and food and empower people to promote and maintain their health.

We inspire people to think and act differently to ensure a sustainable future for the next generations.

## **Your Contact**

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