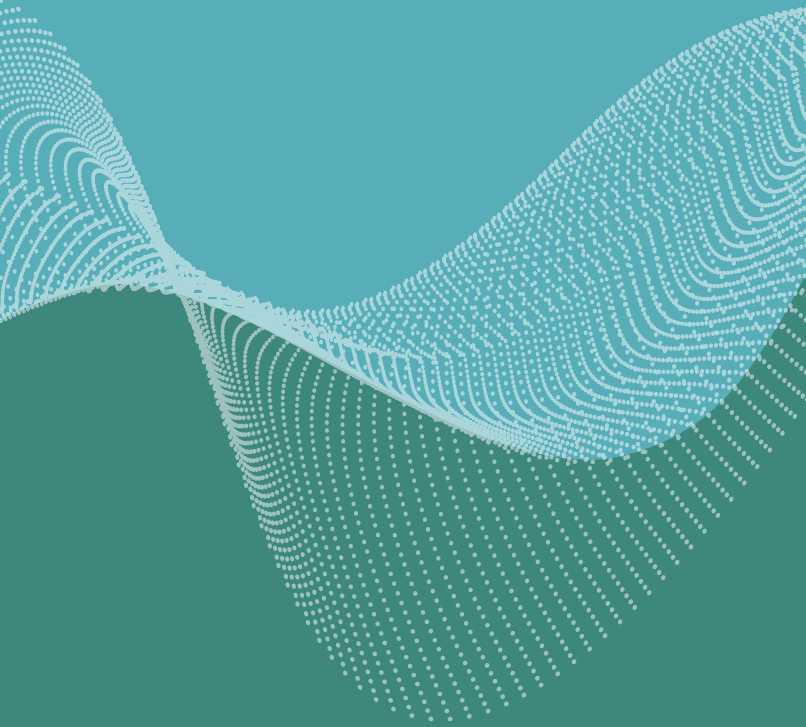


SUSTAINABLE DISINFECTION IN AGRICULTURE

COWS



Anolytech[®]

THE FUTURE OF DISINFECTION

” Working together with Anolytech means our cows always drink clean water, which is important because it’s the largest component of their diet. AnoDes helps keep the water safe in the barn, which helps keep our animals healthy.

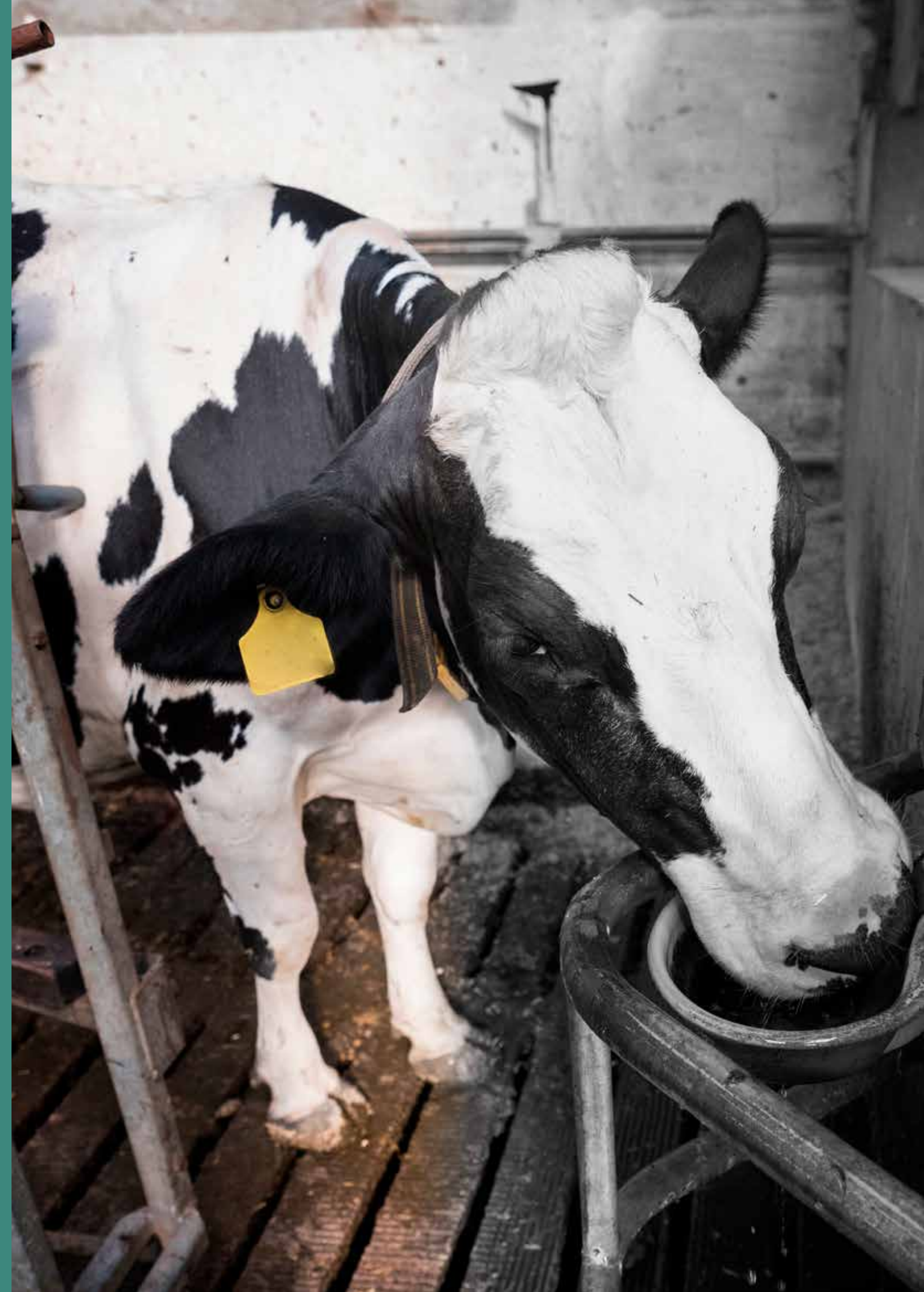
We also use AnoDes as hoof spray which has improved hoof health and meant we’ve been able to completely eradicate digital dermatitis. ”

Bengt Engdahl, Månsagården, Mariestad

ABOUT ANOLYTECH

Since 2005, Anolytech has developed a sustainable and environmentally friendly disinfection technology based on water, salt and electricity which eliminates the need for disinfection with harmful chemicals. Anolytech’s system produces a pH-optimised hypochlorous acid, AnoDes, that kills bacteria, viruses, spores, mould and fungi effectively and stops the growth of biofilm in water. AnoDes is produced directly in a system rented from Anolytech that is installed at the customer site. The sustainable circular production process ensures that the customer has a reliable supply of disinfectant while also minimising the handling of chemicals and unnecessary packaging and the transport of hazardous goods.

AnoDes is EU-certified and not only disinfects drinking water and room areas, but also provides a gentler (EN 1500), more effective alternative to alcohol-based hand sanitisers. Anolytech now supplies disinfectant solutions to the farming sector and food industry, hotels and properties, plus the public sector and healthcare providers in Sweden and Europe.



Ensuring cows have access to bacteria-free water 24 hours a day

Bacteria-free drinking water is essential for animal health and continuous production, but keeping the water free of dangerous microorganisms and biofilm can often be a challenge. Even if the incoming water is high-quality, the cows themselves can introduce new bacteria into it, meaning many hours are spent regularly disinfecting the water system (often using chemicals harmful to the environment). These measures solve the issue for a short period of time, but the bacteria quickly start to grow and the whole system needs disinfecting again in no time. This issue can be avoided by using Anolytech's environmentally friendly water disinfection system.

FOCUS ON PREVENTIVE ANIMAL HEALTH

Even if drinking water is high-quality when it comes in, there is a risk of the quality dropping as it makes its way around the barn. If water becomes contaminated with bacteria, it can make cows ill and even reduce their ability to take nourishment from their feed.

Contaminated water affects the entire food ration and can mean that high-quality (often expensive) feed does not have the right conditions to be able to fatten up cows. The harmful bacteria also have a negative effect on the cows' sensitive rumen. The effect is that the cows have to use extra energy to recover the balance in the rumen, they become less healthy and production is affected. If drinking water is exposed to regular bacterial attack, the cows' reproduction and calving can be disrupted long-term.

All in all, bacteria-free water is a basic condition for stable, cost-effective production. Anolytech's environmentally friendly disinfection system contributes to good animal health by disinfecting water continually for preventive purposes.

EFFECTIVE AGAINST BACTERIA AND BIOFILM

The unique Anolytech system ensures animals have access to bacteria-free water by continuously releasing antimicrobial AnoDes into their drinking water pipes.

Even in small doses, AnoDes kills bacteria, viruses, spores, mould and fungi effectively and stops the growth of biofilm that otherwise risks forming in the water system and providing a fertile environment in which bacteria can thrive. And as AnoDes is produced using nothing more than water, salt and electricity, it does not contain any hazardous chemicals.

This means AnoDes is both environmentally friendly and totally harmless to animals. The cow's own bacterial flora in the rumen are unaffected by the small doses of AnoDes released into the water. AnoDes is

produced on site directly in a system that you rent from Anolytech. This is installed on site and connects to the water supply.

CONTAMINATION OCCURS WHERE COWS DRINK

When checking water quality, samples are generally taken at the start of the water system where the drinking water comes in. These tests often show no issues with the water, but our research has shown that most of the bacteria found in animal drinking waters enter later on in the system, often by the animals themselves. This might be, for example, gut bacteria or bacteria from a sick animal.

Common drinking areas therefore become a risky source of infection, and despite the pressure in water pipes, troughs and bowls are still able to pass the infection on and possibly even contaminate the water for other animals on the farm.

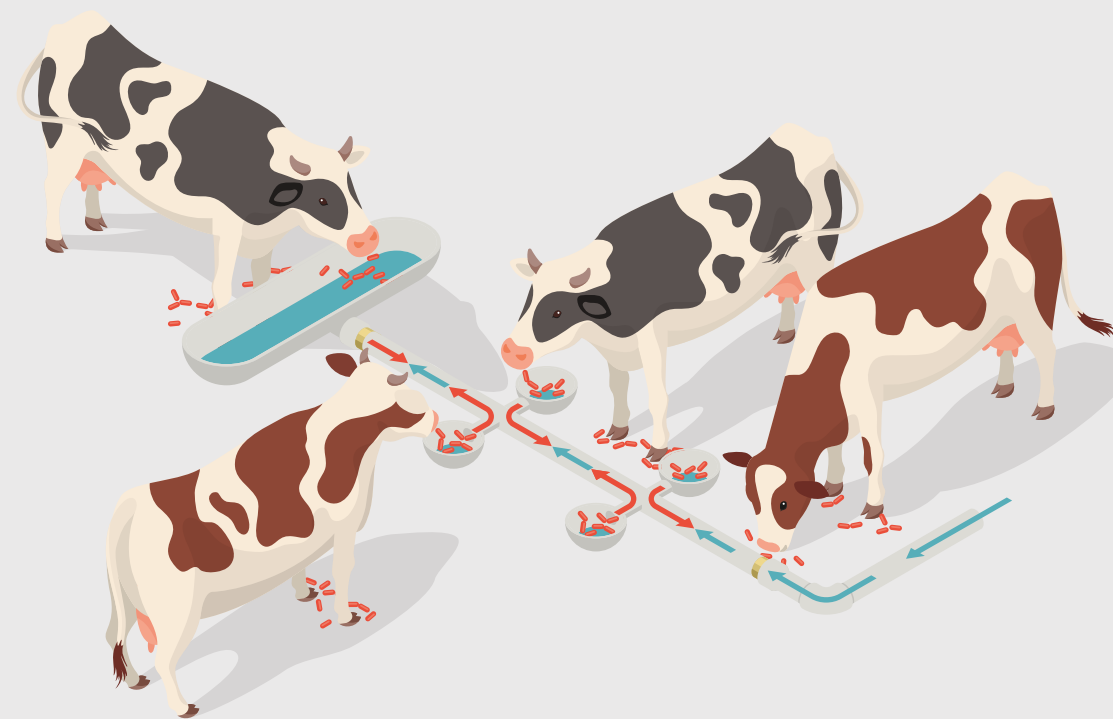
PREVENTIVE PROTECTION AND LONG-TERM EFFECT

Anolytech's system differs from traditional methods where disinfection takes place only after problems have arisen and pipes, troughs and drinking cups have to be flushed clean, often using harmful chemicals. Such initiatives eliminate the symptoms at the time, but they fail to resolve the fundamental problem that bacteria can enter the water system at any time.

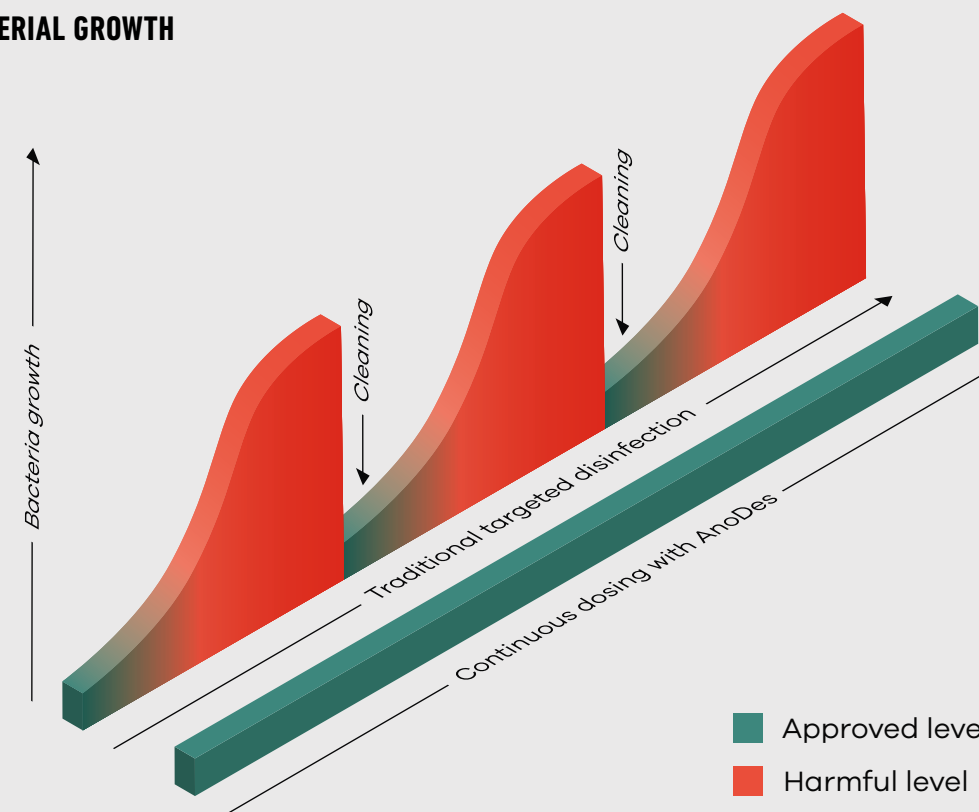
With an Anolytech system, the problem is eliminated entirely as small quantities of AnoDes are a constant presence in the water pipes, killing bacteria. AnoDes also acts as a protective barrier if the incoming water were to be temporarily contaminated.

Dirty surface water from a well or deterioration of the quality of incoming water can have serious consequences. AnoDes then provides preventive protection so that bacteria are unable to grow.

CROSS-CONTAMINATION OF WATER IN BARN



BACTERIAL GROWTH





DID YOU KNOW

- 700 – 800 different types of bacteria can be found in drinking water in barn environments. Ordinary sampling often only measures a fraction of these. Anolytech's AnoDes effectively kills all types of bacteria.
- Concentrated AnoDes is 200 times more effective than chlorine in reducing bacterial populations.
- AnoDes attacks bacteria and other harmful microorganisms by attacking proteins in the cell membranes, causing the cells to rupture and die.
- Periodic disinfection can be both expensive and problematic as they require all the animals to be moved. With AnoDes, disinfection is continual and the animals can stay where they are.
- When AnoDes is consumed, it reverts to its constituent parts: 99.95% water and 0.05% biodegradable substances. This means AnoDes is completely risk-free for both animals and our planet. Bacteria which have proven themselves multi-resistant to antibiotics are no problem as AnoDes kills them just as effectively as other bacteria.

WHY ANODES IS SO EFFECTIVE

AnoDes is a pH-optimized hypochlorous acid produced on-site, consisting only of water and table salt (NaCl). This carefully controlled pH level is what makes AnoDes such an effective disinfectant. No other disinfection solution on the market can control the pH value of the water with the same precision, which means we can guarantee effective disinfection that will not harm animals, no matter what the quality of the incoming drinking water supply.

RELIABLE ON-SITE DISINFECTION

Anolytech's system is based on AnoDes being produced on site in the barn. This means that disinfection can always be deployed and you do not need to handle hazardous chemicals or deal with unnecessary packaging. The system consists of an easy-to-install wall-mounted control unit, salt holder and blending module. All you need is a power supply and connection to the water and wastewater systems. Once commissioned, the system only needs to be topped up with salt tablets: everything else is automated in a process that continuously releases small quantities of AnoDes into the drinking water system. The system design and simple operation guarantee reliable production of AnoDes, while the residual products are so harmless they can be discharged together with wastewater.

RENTAL CONTRACT WITH LOW OPERATING COSTS

The production system is rented from Anolytech, and the cost is based on water consumption in the barn. The system is very efficient in terms of energy and salt, which ensures low operating costs over time.

The system is installed by our service technicians at a suitable location in the barn. The whole system is supplied as a complete package that includes installation, servicing and spare parts – plus a Performance Warranty.

APPROVED FOR ORGANIC PRODUCTION

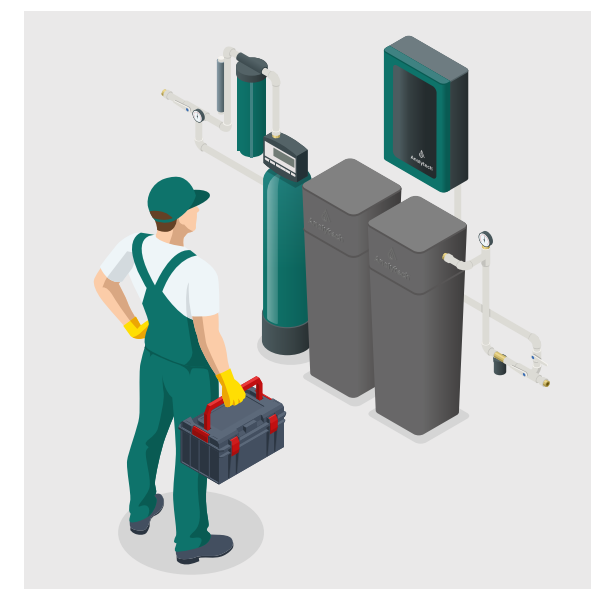
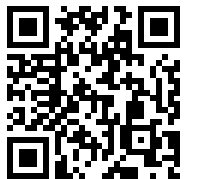
The EU's expert group for organic production, EGTOP, approves the use of 'electrolysed water' in organic production settings where the disinfectant solution is produced on-site – just like AnoDes is.

AnoDes meets applicable European standards for disinfectants and is approved in accordance with Article 95 of the EU Biocidal Products Regulation.

EUROPEAN STANDARDS AND CERTIFICATES

Use the QR code to view and download current directive documents and certificates.

<https://anolytech.com/certificate/>



PERFORMANCE WARRANTY

Anolytech's Performance Warranty guarantees that the system will work throughout the entire rental period. Over the years, our employees have released AnoDes into systems belonging to hundreds of businesses, and we guarantee your system will produce the right amount of AnoDes at the right strength, and that the right dose will be released into the animals' drinking water. We maintain and service our systems at regular intervals and notify users when it is time to order more consumables. We are always on hand, and monitor and continuously control systems and functions.



MINOR INVESTMENT; MAJOR EFFECT

Bacteria-free drinking water is essential for animal health and a company's economic viability, but having to disinfect systems regularly requires a great deal of time and effort. Anolytech's environmentally friendly disinfection systems make that a thing of the past.

The system produces a pH-optimised hypochlorous acid, AnoDes, which is continuously released in small doses into the water effectively killing bacteria and preventing the growth of biofilm.

Installing Anolytech's system is also fast and easy: a machine is connected directly into your water system and disinfection is completely automatic (apart from the quick and easy step of replacing the consumables every now and again). All servicing is included, and we offer a Performance Warranty.

Contact us today for a no-obligation presentation to find out more about Anolytech's environmentally friendly disinfection system.