



# INCREASED PRODUCTIVITY THROUGH OPTIMIZED CLEANING

A Solution Story

Ecolab's next-generation membrane cleaning program helped a Swedish dairy customer reduce CIP time and increase productivity at its sweet whey processing plant.

## CHALLENGES

- > Inefficient cleaning of membranes resulting in adding intermediate washes
- > Long cleaning cycles limiting production capacity
- > Excessive amount of residual in effluent water

## SOLUTION

Ecolab conducted a trial of **Ultrasil™ MembraneCARE 2.0** at a whey processing plant. This next-generation cleaning program is designed for dairy manufacturers producing premium-quality products. It consists of a proprietary mix of an alkaline, acid and a patent-pending enzymatic cleaner that combine to reduce membrane cleaning time and improve cleaning results, which enhance productivity and food safety, while saving time, water and energy.

## RESULTS

Optimized cleaning with **Ultrasil™ MembraneCARE 2.0** helped this customer...



Decrease each CIP cycle by



adding **89hrs.** production capacity each year

valued at **USD ~\$31K**

Reduce residual

Phosphate by **96%**



Nitrate by **93%**

  
in rinse water

Increase permeate flow by



freeing up **160hrs.** production time each year

valued at **USD \$60K**



## SOLUTION

**Technology**  
+  
**People**  
=  
**INCREASED PRODUCTIVITY**

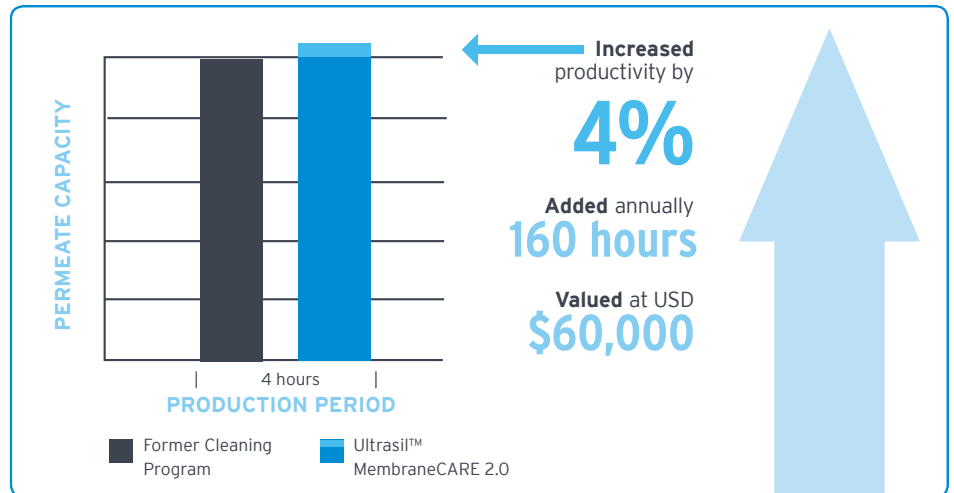
Permeate Capacity  
after **4 hours**  
production



Ecolab's **Ultrasil™ MembraneCARE 2.0** is a proprietary CIP membrane cleaning program, designed for dairy manufacturers producing premium-quality products, that expertly combines alkaline, acid and patent-pending enzyme cleaners, all of which are biodegradable as used. These innovative chemistries are formulated without Phosphoric Acid, Nitric Acid, NPE, EDTA and Chlorine, which minimizes environmental impact.

At this sweet whey processing plant, Ultrasil™ MembraneCARE 2.0 was able to significantly improve membrane cleaning, which reduced the CIP cycle time by 15 minutes offering additional free capacity valued at \$31,000 USD annually. The innovative program also helped increase productivity by 4%, worth \$60,000 USD annually in incremental profits.

Ecolab is the global leader in membrane cleaning and care. A dedicated team of scientists work at the company's Center of Excellence for Membrane Technology in Monheim, Germany. They collaborate with Ecolab R&D and field technicians globally to ensure successful deployment of new innovations. At this plant, Ecolab's technical specialists provided personalized service and on-site training to help ensure the safe and proper use of the chemistries and demonstrate how this innovative cleaning program can help achieve productivity goals and extend asset life, while saving time, energy, water and waste.



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