

Environment

Technical efficiency



Background

One of the problems facing farmers in the near future will be water scarcity, largely due to climate change, so systems that help to optimise and improve water use efficiency are indispensable. The following factsheet explains a strategy to save water, increasing both environmental and economic resilience, as it also results in economic savings.

Objective

Decrease the consumption of clean water and the amount of cleaning water going to the slurry pond.

How does the strategy work?

Generally, cleaning of milking machines consists of three wash cycles: rinsing, cleaning (with a detergent or acid) and rinsing.

The water from the first cycle is not collected, as it contains a very high percentage of organic matter, which can cause sedimentation problems in the collection tank. For this reason, when it reaches the valve, the control set redirects it directly through a specific channel to the slurry pit.

The water from the remaining two cycles can be collected! This water can be **recirculated to an external collection tank**, which is then used to clean the different areas of interest e.g. collecting area, outside of the milking parlour

This solution can be applied to both mechanical milking machines and milking robots, as it only requires a simple installation.



Specific advises

- Avoid collecting the water from the first cleaning cycle.
- The larger the volume of the external collection tank the better.

Positive features

- Reduction in the consumption of clean water.
- Economic savings.
- Less volume to store in the slurry pit.
- High cleaning efficiency: hot temperature and presence of detergent.

Equipment involved? Investment?

- Tank with pump (1000 L), where to store the water to be reused and the hose to use the collected water.
- Control set, to control the water to be recirculated.
- Three-way valve, which sends the water to the previous tank and removes the water that is not to be recirculated.

- Tank with pump (1000 L): 2000€
- Control set: 750€
- Three-way valve: 250€

3000 €

Assessment of method

