

EU CAP Network Workshop 'Circular water management'

Seville, Spain
12 - 13 March 2024



Funded by
the European Union

Inspirational examples: Life ACLIMA Circular use of cleaning water in poultry houses

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ACLIMA

Assuring water Availability in Agriculture under changing CLIMAtE conditions

- > Location: Belgium, Province of Antwerp
- > Period: 01/07/2021 - 30/06/2026





Objectives and scope

- › Tackle water demand challenges in agriculture related to climate change
- › Demonstrate and guide the adoption of technologies and best practices
- › Focus on sustainable and future-oriented farming methods

Reducing irrigation and drinking water

Maximal use of rainwater

Improve water infiltration

Use of external alternative water sources

Use of alternative water sources on farm level



Re-use of cleaning water in poultry houses

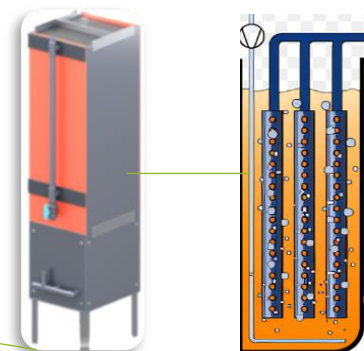


Cleaning broiler stables

- 7 week cycle
- ± 25.000 l water/stable (EPC)
- 1-5 l/chicken
- classification (BE): manure

Water treatment

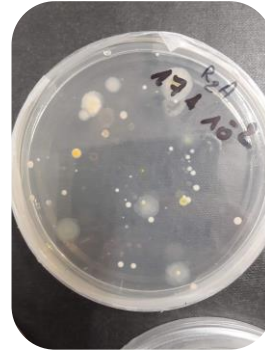
- membrane-bioreactor (MBR)
- biological purification
- stand-alone container
- autonomous operation





Biological and chemical quality of the purified water

	Min.	Max.	Standards for reuse (cleaning)
Tot. germ count at 22°C (cfu/ml)	4.300	35.000	100.000
Tot. germ count at 36°C (cfu/ml)	520	13.000	-
<i>E. coli</i> (cfu/100 ml)	<1	2	1.000
<i>Enterococcus</i> spp. (cfu/100ml)	<1	57	<=1
Moulds and yeasts (cfu/ml)	<10	258	10.000
<i>Salmonella</i> sp.	0	0	0
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pH	7,7	8,0	4-9
Fe (mg/l)	0,12	0,24	<= 2,5
Nitrite (mg/l)	0,11	0,61	<= 1,0
Sodium (mg/l)	63	73	< 200
Sulfate (mg/l)	61	74	< 200



Advantages:

- Circular use of cleaning water
- Reduction of tap and groundwater
- Minimizing nutrient release into the environment

Results based on the trial period: 08/03/2023 - 01/02/2024.





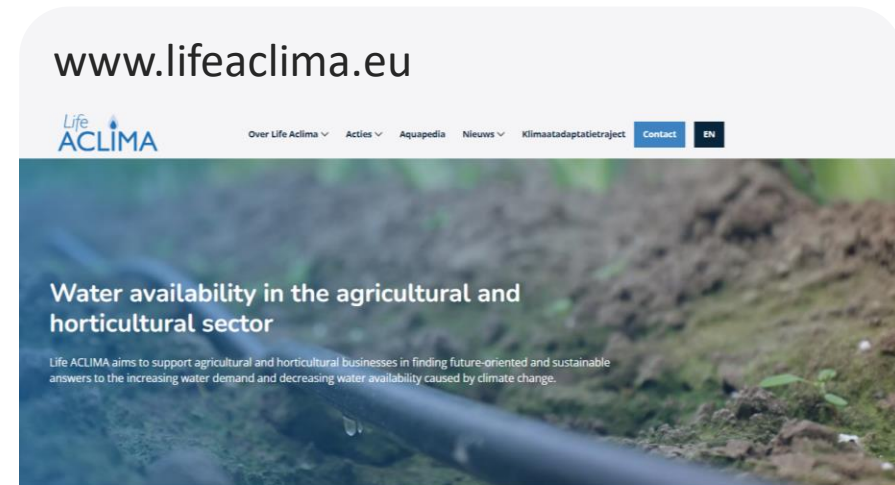
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Every drop counts

How to ensure sufficient future water supply for agriculture and horticulture? That's an important question that we want to answer over the next five years with a promising European Union water project: **Life ACLIMA**.

Over the course of this Life-project, several partners will develop and demonstrate a wide range of technologies, management strategies and



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All information on the workshop is available on the event webpage:

<https://eu-cap-network.ec.europa.eu/events/eu-cap-network-workshop-circular-water-management>

