



HHM-004

**BIOFILM IN WATER PIPES: EVALUATION METHOD OF ELIMINATION DURING SANITATION PROCEDURE IN POST-WEANING UNIT**

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**Background and Objectives**

*Pickling of water pipes during sanitation to eliminate biofilm is not common in pig production, whereas it is systematic in poultry breeding. FT22, FT37 and ATP are good indicators of biofilm in water pipes.*

This field study aims to show the interest of:

- Applying peroxide stabilized by silver nitrate (HYDROCARE®) to eliminate biofilm of water pipes.
- Using on ATP-metry method to estimate efficiency of the cleaning.

**Material and Methods**

This comparative study is conducted on 8 French farms, between April and May 2017.

Water is sampled at the beginning and at the end of the pipe before cleaning during sanitation in post-weaning unit before cleaning.

Then, a disinfecting solution of HYDROCARE® diluted to 3% is incorporated into water pipes for remaining during 12 hours.

After draining and rinsing, water is sampled once again at the end of pipes.

*On all samples, total flora contents at 22°C (FT22) and 37°C (FT37) are measured at the laboratory. ATP is measured on-farm, with an NG Luminometer Clean-Trace® 3M.*

**Results**

On 7 farms out 8 FT22 and FT37 were higher than 100CFU/ml before cleaning. ATP measures ranged from 172 to 4436RLU.

After cleaning, FT22 and FT37 were absent in 6 tested farms. On the 2 others, FT22 and FT37 were lower than 30UFC/ml. ATP measures ranged from 11 to 690RLU.

**Discussion and Conclusion**

*According to this study, application of HYDROCARE® allowed a decrease of markers of biofilm in water pipes, estimated either by counting the total flora or ATP.*

*It confirms the interest of cleaning with HYDROCARE® at each sanitation to eliminate the biofilm.*

ATPmetry seems to be an interesting evaluation method because it is simple, quick and can be tested on-farm.

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