



Experimental Zooprophyllaxis Institute of Lombardy and Emilia-Romagna "Bruno Ubertini"
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Dear Dr. Bruno Cantarelli,

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The sprays you provided (Salvalat and Salvalat Forte) were tested at two different concentrations (1 ppm and 0.1 ppm) against the *Lactobacillus casei* strain (see the table below) using the MIC (Minimum Inhibitory Concentration) broth method, in accordance with procedures specified in CLSI M31-A3*.

MIC RESULTS

No. Bacterial Strain	Salvalat	Salvalat Forte
1 <i>Lactobacillus casei</i>	> 1 ppm	>1 ppm

*Clinical and Laboratory Standards Institute, Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals – Third Edition: Approved Standard M31-A3, 2008 Wayne, PA, USA CLSI.

Dr. Giovanni Pupillo
Responsible Manager

Explanation

This analysis represents a Minimum Inhibitory Concentration (MIC) study of the Salvalat and Salvalat Forte sprays, tested under laboratory conditions against the *Lactobacillus casei* strain. The MIC method determines the lowest concentration of an antimicrobial agent required to inhibit the growth of a specific microorganism.

In this case, spray concentrations (1 ppm and 0.1 ppm) were tested using the standard MIC broth method, following the CLSI M31-A3 protocol (Clinical and Laboratory Standards Institute). This method is widely used to evaluate the efficacy of antimicrobial agents, especially in veterinary medicine, for products intended for infection prevention or treatment in animals.

Key Findings

The test results demonstrate that *Lactobacillus casei*, a beneficial bacterium essential for cheese production, is not inhibited at silver (Ag) concentrations used in Salvalat and Salvalat Forte products, up to 1 ppm. This indicates that at these concentrations, the products do not interfere with the milk fermentation process necessary for cheesemaking.



Conclusions

The products can be used in environments where the activity of beneficial microflora, such as *Lactobacillus casei*, must be preserved, for example, in cheese production.

At levels ≤ 1 ppm, colloidal silver content does not inhibit the growth of this bacterium, making these products compatible with use on farms or facilities handling milk intended for cheesemaking.

This result is significant in ensuring that the products do not negatively affect milk quality or disrupt production processes, while still providing effective control over undesirable microorganisms.