REPORT:

LIQUIDNATURE IMPROVES THE SAFETY OF FRESH MEAT

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1. JUSTIFICATION AND OBJECT OF THE STUDY

LIQUIDNATURE (DOMCA SA) is a mixture of natural aromatic compounds with antioxidant and preservative properties. The object of this study is the evaluation of its antimicrobial efficacy for the control of Enterobacteriaceae in fresh meat.

2. METHODOLOGY

Shelf life study

The shelf life trials allow the evaluation of microorganism's ability to grow and survive in food under certain conditions; to do so, an analytical monitoring system is conducted during an established time of preservation. At the present study, the microbiological quality of fresh meat including LIQUIDNATURE (doses of 1 and 3 g/kg) was measured. A control batch, without this antimicrobial treatment, was included. Each analysis was made by duplicate.

Sampling and analysis

Sampling was made at different times during a period of 7 days. The samples were kept refrigerated at 4 ± 1 ºC. For the determination of Enterobacteriaceae it was applied the method according to international standards, with count method of colonies on McConkey Agar (Biokar Diagnostics) of a determined quantity of sample and, its decimal dilution obtained from the stock solution. The samples were incubated at 37ºC during 48 hours. The results are expressed as the number of colony forming units per gram of sample (cfu/g).

3. RESULTS

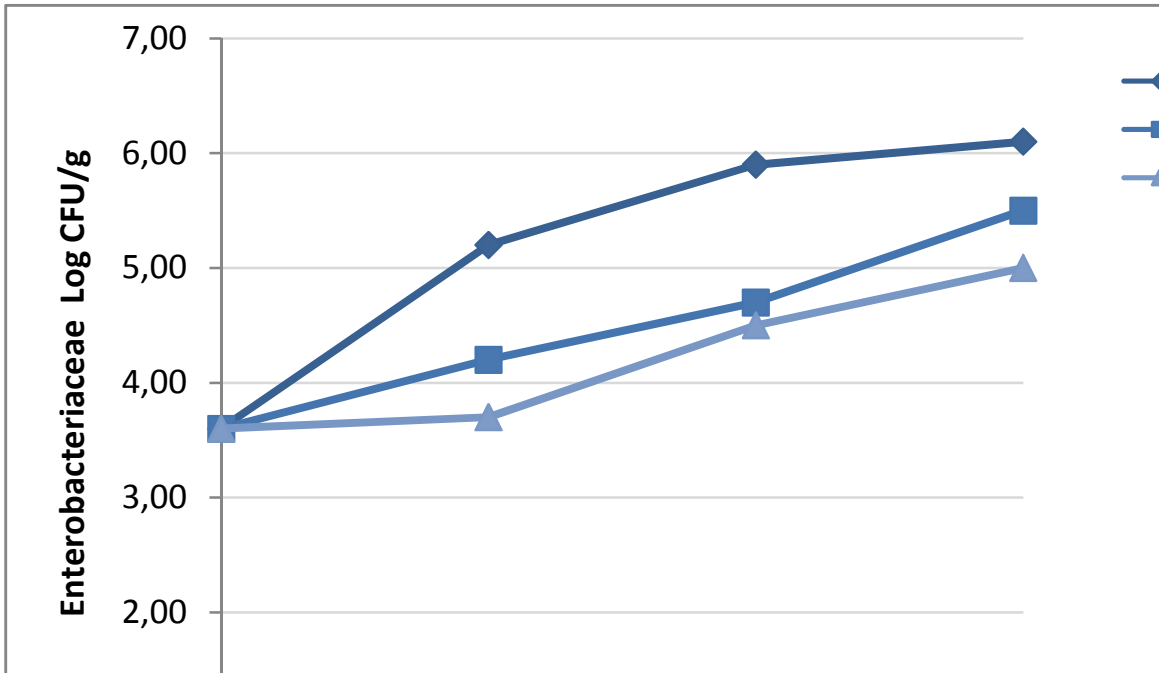

Figure 1. Evolution of *Enterobacteriaceae* in fresh meat.