

NATURAL PRESERVATION



NATURAL
SOLUTIONS

PRESAN-CL

Natural Preservation

Natural Ingredient

Consumers are looking for just natural, less processed and healthier food products. Perception of artificial preservatives as undesirable chemical products is a growing concern.

Meeting these natural preservation challenges without compromising food safety, Catalina’s scientists team have been researching natural solutions based on traditional methods and the solutions that nature itself offers us. Since ancient times, spices and other fermented ingredients such as vinegar have been used to preserve food and this is where we find our solutions to prolong the shelf life of a wide range of foods.

- NATURAL LABELLING
- SHELF LIFE EXTENSION
- MICROBIOLOGICAL SPOILAGE INHIBITION
- FOOD WASTE REDUCTION

About Presan-CL

PRESAN-CL is a range of synergistic blends combining extracts of spices and fermented food, with or without vinegar, from natural sources, which allows limiting the growth of harmful microorganisms and thus extending the shelf life naturally in the food products to which they are added.

Presan-CL Range

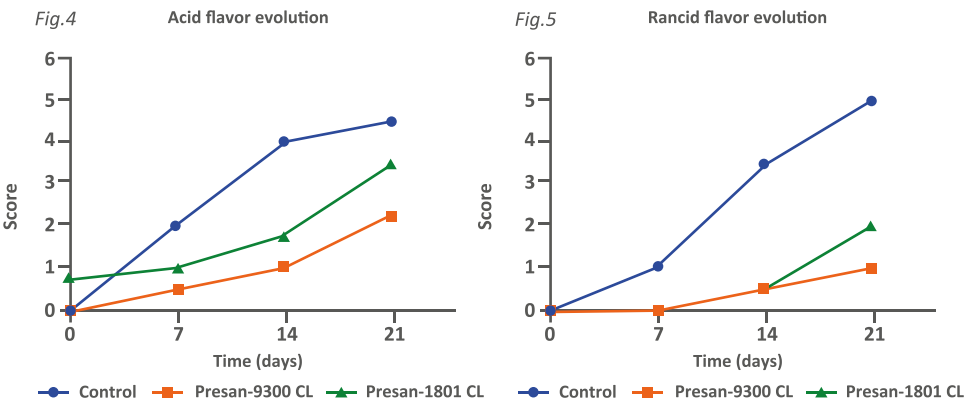
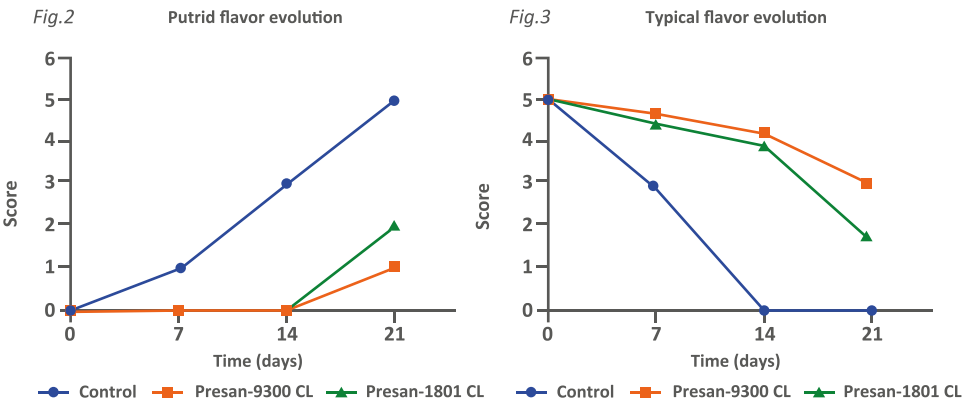
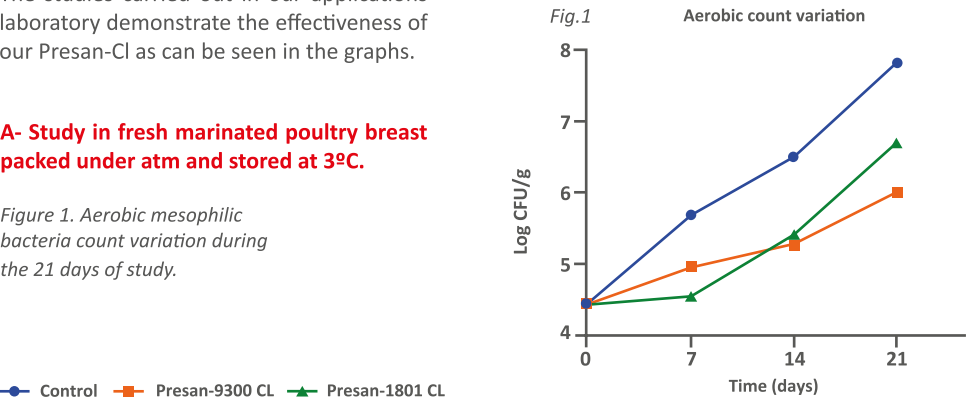
NAME	LABELLING
PRESAN-9300 CL	Spice Extracts and Plant Extracts
PRESAN-1801 CL	Powdered Vinegar, Fermented Dextrose and Spice Extracts
PRESAN-2200 CL	Powdered Vinegar, Fermented Dextrose and Spice Extracts

Shelf Life extension

The studies carried out in our applications laboratory demonstrate the effectiveness of our Presan-CL as can be seen in the graphs.

A- Study in fresh marinated poultry breast packed under atm and stored at 3°C.

Figure 1. Aerobic mesophilic bacteria count variation during the 21 days of study.



Figures 2-5.Evolution of putrid, typical, acid and rancid flavors after 7, 14 and 21 days in control and treated samples.

According to the results, both natural preservatives maintained the typical sensorial profile for two weeks, avoiding the appearance of putrid flavor, the most important flaw in a sensorial study. The acid and rancid flavor at t=14 in the PRESAN samples were also practically imperceptible while in control samples without PRESAN, on day 7, acid and rancid flavor were perceptible and putrid flavor also was detected.

B- Study in bread buns inoculated with natural appearing typical yeasts and molds.

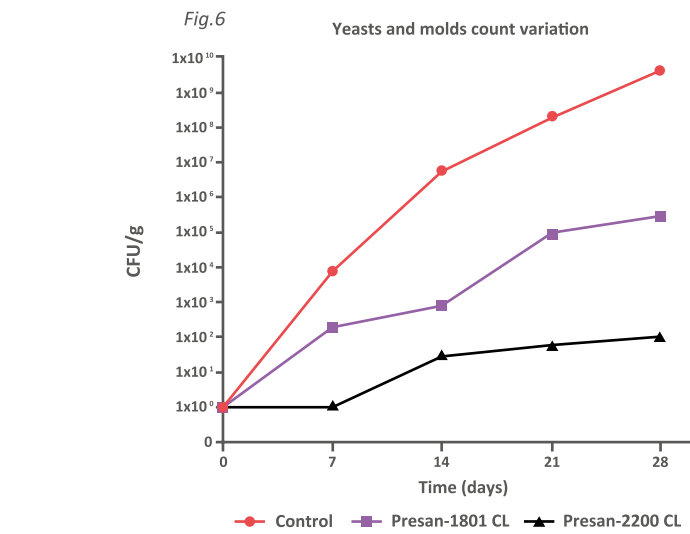


Figure 6. Yeasts and molds count variation during the 28 days of the study. The incubator was previously spread with natural appearing yeasts and molds, to accelerate growth.

After two weeks, PRESAN-1801-treated buns have acceptable levels and PRESAN-2200 CL-treated buns remain as the best option. During week three, PRESAN-2200 CL-treated buns show a very low count and it only reaches two logarithmic units at the end of the study (day 28), keeping the product fresh and microbiologically safe.



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