

**Título: HONEY, GREEN PROPOLIS AND CINNAMON ESSENTIAL OIL AS NATURAL FOOD PRESERVATIVE WITH ANTIYEAST POTENTIAL**

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**Resumo:**

The industrial food should be preserved to ensure safe consumption and avoid losses. Preservatives are chemicals added to food in order to avoid deterioration, especially those caused by microorganisms. The industry has sought alternatives to replace these chemical preservatives due to the risks associated with routine consumption or to offer a new class of food to selected consumers. In this scenario, the use of natural antimicrobial agents is an attractive option. Several studies have reported antibacterial and antioxidant activities for honey bee suggesting a use in food beyond current usage. Propolis has been used for therapeutic purposes due to its anti-inflammatory, antioxidants and antimicrobial properties, but few studies have suggested their use as a preservative of food. The cinnamon essential oil has proven antibacterial and antifungal activity in several studies. The aim of this study was to compare two honey plus propolis-based formulations (MP), with the addition of essential oil of cinnamon (MPC) in relation to chemical preservatives potassium sorbate and calcium propionate, used mainly in lacteal and bakery products. Preservation time in Sabouraud dextrose agar assays for fungal contamination at 8°C and 30°C temperatures, measured every seven days, to a period of 84 days. The two formulations had equal capacity preservation (0.4% MP at 30°C) and far superior to chemical preservatives (0.4% MPC at 30°C, 0.2% MP and 0.025% MPC at 8°C). These results were very promising and can motivate industries to develop new organic and natural products without chemical additives, with commercial appeal to an ever more demanding consumers about food quality.

**Palavras-chaves:** Propolis. Honey. Food contamination.