

## Natural Preservatives: An Alternative for Chemical Preservative Used in Foods

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**Abstract :** Microbial degradation of foods is defined as a decrease of food safety due to microorganism activity. Organic acids, sulfur dioxide, sulfide, nitrate, nitrite, dimethyl dicarbonate and several preservative gases have been used as chemical preservatives in foods as well as natural preservatives which are indigenous in foods. It is determined that usage of herbal preservatives such as blueberry, dried grape, prune, garlic, mustard, spices inhibited several microorganisms. Moreover, it is determined that animal origin preservatives such as whey, honey, lysosomes of duck egg and chicken egg, chitosan have antimicrobial effect. Other than indigenous antimicrobials in foods, antimicrobial agents produced by microorganisms could be used as natural preservatives. The antimicrobial feature of preservatives depends on the antimicrobial spectrum, chemical and physical features of material, concentration, mode of action, components of food, process conditions, and pH and storage temperature. In this review, studies about antimicrobial components which are indigenous in food (such as herbal and animal origin antimicrobial agents), antimicrobial materials synthesized by microorganisms, and their usage as an antimicrobial agent to preserve foods are discussed.

**Keywords :** animal origin preservatives, antimicrobial, chemical preservatives, herbal preservatives

**Conference Title :** ICFSHN 2017 : International Conference on Food Science and Human Nutrition

**Conference Location :** Lisbon, Portugal

**Conference Dates :** April 16-17, 2017