

## NATURAL ANTIMICROBIALS AND EFFECTS

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The food quality may be adversely affected as results of various reactions are formed in food. Heating, freezing, drying, irradiation, etc. procedures can be applied to prevent or control microbial spoilage which threatens food safety so shelf life of food can be extended. In addition to these applications, antimicrobials in other words preservatives among food additives can be used for same purpose. Synthetic types of additives have been used commonly due to being economic. However today, orientation to the natural as with each subject, the use of antimicrobials that are natural, is increasing with the awareness of consumers. The researches about natural food additives are increased both prevention of potential toxicity because of the overuse of synthetic preservatives and providing natural food demand of consumers. These components present at vegetative, animal, and microbial ecology in the natural state as a part of protection systems against to various effects. Isolation methods differ from each other depending on the source of preservative. Best-known antimicrobial additives are phenols (phenolic acids, polyphenols, and tannins), organic acids (acetic, lactic, citric acid etc.), and essential fatty acids (caprylic, capric, lauric myristic, oleic and linoleic acid etc.). Spices are effective on increasing food flavor; in addition, they show antimicrobial effect owing to include essential oils in composition. Apart from these additives, there are many natural antimicrobials. In this review, the researches about natural antimicrobials that are vegetative, animal, and microbial origin applied for microbial growth in food and effects will be discussed.

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