

Nitrites in cured meats, health risk issues, alternatives to nitrites: a review

ABSTRACT

Nitrite is one of the most widely used curing ingredients in meat industries. Nitrites have numerous useful applications in cured meats and a vital component in giving cured meats their unique characteristics, such as their pink color and savory flavor. Nitrites are used to suppress the oxidation of lipid and protein in meat products and to limit the growth of pathogenic microorganisms such as *Clostridium botulinum*. Synthetic nitrite is frequently utilized for curing due to its low expenses and easier applications to meat. However, it is linked to the production of nitrosamines, which has raised several health concerns among consumers regarding its usage in meat products. Consumer desire for healthier meat products prepared with natural nitrite sources has increased due to a rising awareness regarding the application of synthetic nitrites. However, it is important to understand the various activities of nitrite in meat curing for developing novel substitutes of nitrites. This review emphasizes on the effects of nitrite usage in meat and highlights the role of nitrite in the production of carcinogenic nitrosamines as well as possible nitrite substitutes from natural resources explored also.