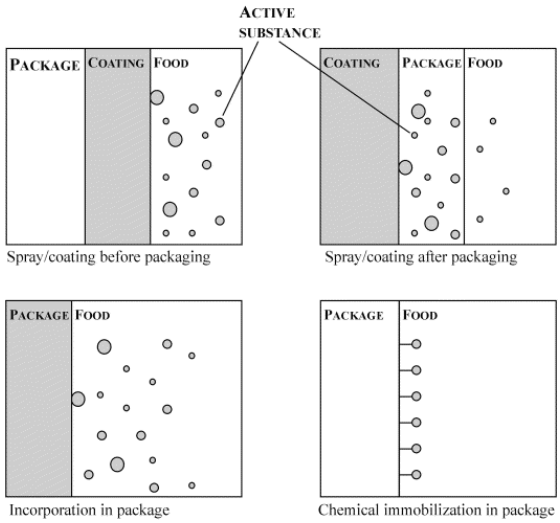
Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – FEBRUARY 2010

Active Packaging Technology: A Potential for Poultry and Meat Products

In spite of many controls implemented during and immediately following primary and further processing, the likelihood of microbial growth during storage continues to be a weak link in the safety of perishable foods. The incorporation of antimicrobials into the packaging materials, also known as "active packaging", is a novel approach designed to improve the shelf-life and safety of meat and poultry products. Antimicrobial packaging hold remarkable potential particularly for many RTE poultry products since microbial contamination of these products occurs primarily on the surface as a result of post-processing contamination. Due to the innovative concept of "slow-release" of the antimicrobial from the packaging onto the product, its use could prove to be effective in maintaining a high concentration of the antimicrobial on the surface of meat products. Some of the commonly used antimicrobials in "active packaging" technology are; organic acids, such as acetic acid and lactic acid, clove oil, garlic oil, grapefruit seed extract, pediocin, and nisin. According to recent studies, plastic packaging films coated with the antimicrobial nisin were quite effective in delaying microbial growth during refrigerated storage of poultry meat.



Source: J.H. Han. 2000. Antimicrobial Food Packaging. *Food Technology* **54** 3 (2000), pp. 56–65

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