

MICROBIOLOGICAL STATUS AND OXIDATION PROPERTIES OF MINCED CHICKEN BREAST MEAT TREATED WITH DIFFERENT CONCENTRATION OF ALLYL-ISOTHIOCYANATE

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Due to its biological composition poultry meat is perishable by nature and susceptible to quality deterioration such as; microbial spoilage and oxidation changes. Meat and meat products with healthy, extended shelf-life and good organoleptic properties are highly demanded by consumers. In current study, the antimicrobial and antioxidant effects of Allyl-isothiocyanate (AITC) as a natural additive on raw chicken meat during chilling storage were determined. For this purpose, samples of minced were treated with different concentrations of AITC (100, 200, 300 and 500 ppm) and control no AITC added, the samples packaged and stored for 8 days at 4 °C. Fluctuations with no significant effect were noticed in TBARS values during the storage period. Simioulatnesly AITC with higher concentration showed lower mesophilic aerobic counts compared to control and meat containing a low concentration of AITC. Moreover, compared to the beginning of storage, AITC decreased water holding capacity (WHC) of meat this can affect other physicochemical properties of meat. Further study needed to determine the effect of AITC on the physicochemical properties of meat and food products.