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Utilization of pomegranate peel to increase the shelf life of chicken burger during cold storage 4±1°C

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This study was conducted to utilize the pomegranate peel to reduce the growth of microbial load and extend the shelf life of chicken burgers during cold storage (4±1°C). Some chemical properties e.g. acid value, peroxide value and thiobarbituric acid-reactive substances (TBARs) of chicken burger samples prepared from added 0, 10, 20 and 30% of pomegranate peel were studied.

Sensory attributes (odor, texture, taste, and appearance) of chicken burgers during cold storage (4±1°C) were evaluated. Flavonoids and Phenolic compounds were determined by high performance liquid chromatographic method (HPLC) using ultraviolet detector set at 330nm and 280nm, respectively. Total bacteria count, psychrophilic bacteria, spore-forming bacteria, total molds and yeasts count of the chicken burger was determined during cold storage (4±1°C). The results showed that additive pomegranate peel to chicken burgers samples during its preparation decreased the acid, peroxide and TBARs values of their lipids and inhibited the growth of total molds

and yeasts, total bacterial, psychrophilic bacteria and spore-forming bacteria, and which improved its appearance, odor, texture, and taste. It can be concluded that the activity of pomegranate peel as a natural antioxidant and antimicrobial assay to control the microbial load of chicken burgers samples should be conducted further as a food additive to enhance the safety of consumable chicken products.

Biography

Ahmed A Aly has completed his PhD at the age of 31 years from El-Azher University Cairo, Egypt. He is an Assistant Professor of Food Sciences and Technology, Faculty of Specific Education, Benha University, Egypt. He has published more than 15 papers in reputed journals.

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