

## A SURVEY OF IMPORTANT CONTAMINANTS MICROBIAL FOOD IN HILLA CITY

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**ABSTRACT :** Pathogens transmitted by foods are considered as a significant danger agent on human life in progressed in addition to poor regions because of their spread all everywhere the earth. This study was carried out during the year 2019 when 475 samples were collected from various foods available in the local markets of the city of Hilla and imported canned foods, Where the Public Health Laboratory, Babylon was used to collect information on spoiled foods and it was noticed that the percentage of spoilage was in items that contain a high percentage of sugars such as molasses, juices, and sweets. Microbial pathogens are considered a single of the utmost significant agents that lead to food spoil. The microorganisms that cause this spoilage are varied, such as molds, aerobic plate count, *E. coli*, coliform, *Staph. aureus* and fungi, which 475 samples include 341 samples of local food and cans and 134 samples of imported food. It was found that 27 of them had chemical changes, 34 had microbial growth and 14 had defects in manufacturing or packaging. The present study aimed to conduct a survey of the most important microbial causes of food spoilage and to make a comparison of the most important spoiled foods with microorganisms.

**Key words :** *Staphylococcus aureus*, coliform, *Escherichia coli*, food contamination.

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### INTRODUCTION

It is assumed that the troubles of spoilage and food poisoning appeared early with the coming of prepared foods, the troubles of disease transport by foods and of faster deterioration caused by inappropriate store made their manifestation (James *et al*, 2005). Categorization of spoil by microorganisms in packaged foods is at most established on the tartness and pH of the canned food. Produces damage to packaged foods either due to the presence of micro-organisms or non-microbial causes. damage of packaged food outcome for three major purposes: unsuitable heat uses permit presence of mesophilic microbial, unsuitable refrigeration following the warming and rising temperature permits emergence in addition to the development of thermophilic spore formers and infiltrate pollution of cans following heat handling. Anaerobic spoil is caused by anaerobic Thermoanaerobacter and Thermoanaerobacterium with the production of large quantities of hydrogen and carbon

dioxide gases, in addition to causing acid fermentation at high temperatures in middle acid packaged foods. Several genes of spore forming psychrophilic bacteria have the capability to contamination refrigerated packaged foods in addition to production of gas, off flavors, and smells. Generality significant chemical deterioration of packaged foods is due to the presence of H<sub>2</sub> gas (Osman and Bozoglu, 2016).

The office of Food and cultivation in addition to the World Bank issued it clarifying that one out of either forty people in Ghana tolerates from food-borne diseases yearly, with more than 420,000 cases recorded throughout the year. In 2005, the Food and Agricultural Organization in addition to World Health Organization are registered report on food safeness for microbiological dangers from street foods (Enoch *et al*, 2017). *Staphylococcus aureus*, *Listeria*, *Salmonella*, *Bacillus* and *Escherichia coli* are caused foodborne diseases (Foriwa-Ababio, 2014). The trouble of food safety is not a maintain of poor countries