

Microbiology in Food

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EDITORIAL NOTE

Food microbiology is the scientific study of microorganisms that are used both in food and for food processing. This involves micro-organisms that contaminate food as well as those that are used to grow it; for example, yogurt, cheese, beer and wine. It is the study of the microorganism inhabiting, producing and contaminating the food. It also deals with the analysis of the micro-organisms which cause food spoilage. Probiotics is one of the most significant feeding stuff research aspects. It focuses on a wide range of existing microbial research that has both beneficial and deleterious effects on food safety and quality, and is therefore a public health issue. Microbiology is essential to food safety, production, processing, storage and preservation. Studies of Food Microbiology use a broad variety of current field technology, including immunology, microbiology, and molecular biology. Food Microbiology conducts important basic and applied work in the following areas:

- Food-borne microbes and their interactions with different food and environment food chain including their adaptation and response mechanisms to food-processing and food-handling stresses.
- Industrial and biotechnological exploitation of microbial diversity and flexibility for the improvement of processed food quality, protection, and healthy products.
- Fermented crop microbiology
- Evolutionary dynamics of pathogenic food-borne microbes and those of importance to food production and food health in their various ecological contexts.
- Pathogenic genomics and functional genomics, and innovative microbes with added value.
- Molecular methods for the detection, typing and characterization of microbes and diverse microbial communities associated with food.
- Production and impact of probiotics as food supplements on human health including impact on host gut micro-biota.

Food Microbiology publishes original research papers, brief research communications and review articles covering all aspects of food microbiology. Studies need to be novel and specifically contribute to the microbiology of food or food processing conditions. It is of interest to note the microbiological aspects of

all stages of food development, from pre- to post-harvest and during processing and preparation. Studies would be of general interest to the food microbiologists in the international community.

The authors from different parts of the world addressed the present Volume 4 in various aspects of food safety, hygiene and microbiology. Ahtesham AS, *et al.* discusses that *Campylobacter* infections are growing due to its simple routes and sources of transmission. The lack of precautionary steps in the processing and delivery of food to geographic locations around the world often participated in prevailing infections. In addition, unhealthy unpasteurized canned food and its enormous consumption often serve as a predisposing factor in the propagation of pathogens in today's industrial age. Therefore, by creating and coordinating awareness programs, acknowledgment and briefing by medical experts, physicians etc., they recommended approaching people hoped to be a successful way of handling it. In addition, they suggest further investigations and surveillance system globally to recognize different strains, particularly in areas such as tropical regions, so that a proper comprehensive picture in understanding *Campylobacter* infections should be created. [1].

Babatuyi CY, *et al.* in their research article concluded that microbes found in fermenting Igbemo rice were mainly representatives of the genera *Bacillus* and *Saccharomyces*. On the seventh day of fermentation the fermented rice was most desirable and appropriate with the least total microbial load. At this point, the sample's pH was also at its highest (near neutral), so may be more appropriate for consumption. However, more work should be conducted to determine the status of its nutrients as fermentation progresses and the value added by oil. This will assist in determining when the fermented food should be eaten best. [2].

REFERENCES

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2. Babatuyi CY, Boboye BE, Ogundeji BA. Dynamics of Microbial Populations on Fermented Nigerian “Igbemo” Rice in Akure, Nigeria. *J Food Microbiol Saf Hyg.* 2019;4(1):1-4.