

# Importance of Microorganisms in Daily Life

Masuda Kaneko\*

Department of Microbiology, Kyoto University, Sakyo Ward, Kyoto, Japan

## DESCRIPTION

Food safety, manufacturing, processing, preservation, and storage all depend on microbiology. Microbes like bacteria, moulds, and yeasts are used in the manufacturing of foods and food components including wine, beer, bread, and dairy products. On the other hand, one of the most common causes of food waste is the development and contamination of spoilage and dangerous bacteria. Despite the importance of technology, sanitary techniques, and traceability in preventing and delaying microbial growth and contamination, food is nevertheless prone to deterioration and pathogen microorganism activity. Food loss due to spoilage or contaminated food has a negative impact on the food business and customers, resulting in financial losses and higher healthcare expenses. The features and relevance of the key microorganisms involved in food decomposition or contamination are bacteria, yeasts, moulds, viruses, and parasites which are recognized and newly found species; foodborne illness defects and modifications; most frequent food related with each foodborne disease; thermal processing resistance; incidence in various countries; outbreaks; and associated symptoms.

Food preservation has played an important role in mankind's survival from ancient times, boosting the safety and stability of many foodstuffs. In the current food business, traditional methods such as salting, drying, fermenting, and heating are still utilized to avoid food degradation. Since then, our understanding of the underlying causes of degradation has vastly improved, and losses due to contamination have declined significantly. Proper use of advanced technologies (such as pasteurization and sterilization), hygienic techniques (e.g., good hygiene practices and good manufacturing practices), and traceability (preventing and reducing the distribution of unsafe and poor quality food) can all help to avoid and delay the colonisation of spoilage and pathogenic microorganisms in food. Food is vulnerable to deterioration and contamination by pathogenic microorganisms throughout the food supply chain, including retail stores, restaurants, and customers' homes. On the

route from the farm to the processing facility, as well as throughout transit, storage, and distribution, food might be contaminated by outside sources. Large number of microorganisms can be found in the air, water, soil, and foodstuffs, as well as in animals and human digestive systems. Fortunately, the majority of microorganisms have important activities in the environment and in various food-related industries, such as the manufacture of wine, beer, dairy products, and bread goods. Microbes, on the other hand, are the most common source of undesirable food decomposition, and pathogen contamination of food creates food safety issues. Bacteria, yeast, and moulds are the three types of microorganisms that live on and in food.

Moulds are commonly associated with food decomposition, however their application in the food sector is restricted. Due to their capacity to ferment carbohydrates into ethanol and carbon dioxide, yeasts are the most extensively employed microorganisms in the food business. Some yeast, such as baker's yeasts, are produced commercially, while others, such as brewer's yeasts, may be utilized as protein sources, mostly in animal feed. Bacteria are split into categories based on the fermentation product, such as lactic acid bacteria, propionic acid bacteria, and acetic acid bacteria, which are all significant in food microbiology. Prolytic, saccharolytic, and lipolytic bacteria can be identified based on the food ingredient attacked.

Foods like cheese, yoghurt, bread, beer, wine, and other fermented foods require the presence of microorganisms. One of the strategies for preserving and altering the food quality is fermentation. To leaven bread, brew beer, and create wine, yeast, particularly *Saccharomyces cerevisiae*, is utilized. Yogurt, cheese, spicy sauce, pickles, fermented sausages, and other foods all include bacteria, including lactic acid bacteria. Other bacteria, such as pathogens and spoilage-causing microbes, are less receptive to these fermentations, increasing the shelf-life of the food. Moulds are also necessary for the ripening and development of some cheese kinds.

---

**Correspondence to:** Masuda Kaneko, Department of Microbiology, Kyoto University, Sakyo Ward, Kyoto, Japan, E-mail: MasudaKaneko@ac.jp

**Received:** 17-May-2022, Manuscript No. AMOA-22-17977; **Editor Assigned:** 20-May-2022, Pre QC No. AMOA-22-17977 (PQ); **Reviewed:** 08-Jun-2022, QC No. AMOA-22-17977; **Revised:** 17-Jun-2022, Manuscript No. AMOA-22-17977 (R); **Published:** 24-Jun-2022. DOI: 10.35284/2471-9315.22.8.230

**Citation:** Kaneko M (2022) Importance of Microorganisms in Daily Life. Appli Microbiol Open Access.8:230.

**Copyright:** © 2022 Kaneko M. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

---