Food Safetys: How India is affected?

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Abstract:

In India, food safety is of paramount concern and is governed by the Food Safety Standards Authority in India (FSSAI). To implement FSSAI Act 2006 practically in field, rapid and precise techniques for detection of adulterants, microbial loads etc is gaining popularity and is very much available in the quality control laboratories. In recent years, consumers have placed increased emphasis on food safety and expect that foods must not contribute chronic diseases. That is why consumers are expecting safe food. Actually food safety is not a single stage control. It involves combined effort of all parties that participate in the food chain and processing. It should be right from the raw material to the final product that reached the consumer. In the present article it has been reviewed how Indians government is helping in order to provide safe food to Indian population.

Keywords: Food Safety, FSSAI, Quality Control

Introduction

Earlier food safety in India has been regulated by a wide variety of legislative disorders and acts but now this approach has been changed. The Food Safety and Standard Authority of India is responsible for active enforcement of national laws and regulations that govern the retail supply chain and its food processors. This one organization has replaced the multi departmental control .In an effort to improve food safety standards and open the country for international business, India's Food Safety and Standards Act (2006) consolidates the country's existing laws into one cohesive Act. To ensure the availability of safe, fresh and wholesome food for human consumption , FSSA sets down the scientific standards for food articles to regulate their raw material collection, distribution, sale and import which is called food chain in Food Business Organizations.

It is a well known fact that food safety is the key for health and nutrition and therefore is gaining importance at both national and international level. With the increased food safety standards not only there is reduction in food borne illnesses but there will be increased food trade and income generation capacity can be extended.

Review of Literature

Food Safety is of vital importance not only for human health but also from perspective of economic costs .Various physical, chemical, biological agents are capable of making food unsafe for human and animal consumption. In Indian context variety of food toxicants, contaminants and adulterants have been found to be responsible for several food borne outbreaks in humans and animals. In modern globalized era when food travels across continents, keeping the food safe and secure from contamination risk during the entire food chain is shared responsibility of producers, processors, traders and the government.

In the year 2005, the food processing policy has been enunciated by the Ministry of Food Processing. The policy included reference to Food Safety and Hygiene. It calls for certifying authorities to be vigilant in enforcing standards at least in case of processed foods, training of quality enforcement staff in HACCP, GMP and GHP requirements, harmonization of national standards with codex standards and science based standards relevant to Indian conditions.

The changing food safety standards, Stricter sanitary and phytosanitary requirements and improved global products norms trigger the necessity to improve legislative network of a country based on codex HACCP. Due to multiplicity of laws in a majority of developing nations, processed food industry is facing a major threat for survival and growth. In India nine different ministries were involved in controlling this area. FSSA was established to integrate the food safety laws in India in order to systematically and scientifically reorient food processing and manufacturing industry from regulation to self compliance.

Categorization of Food Products

In FSSAI regulations, food products fall into two categories

Standardized :-The standardized food products are those for which standards are prescribed and do not require product approval prior to manufacture, sale, distribution or import. The

first time manufacturer or importer of standardized foods only requires an FSSAI license to begin a food business.

Non-Standardized:-Non-Standardized food products do not have standards as their safety parameters are either not known or not yet ascertained. Presently FSSAI has standardized only 380 articles of food in 16 categories, so all other foods require product approval if they are not listed among these 380 food items.

Traditional foods also do not require product approval as they are being consumed for centuries in India. The ingredients and preparation methods are well known and this guarantees their safety. If, however, traditional foods use any new ingredients or food additive or new technologies in preparation, they need product approval.

Bio-film formation of Food borne Pathogens and their control:
Microorganisms can form bio-film to adapt various hard to live conditions for long term survival. Food borne pathogens can seed in bio-film to escape the regular sanitation practice, especially in the floor drains. Food processing facilities generally use Chlorine based or phenolic based sanitizers in their sanitation practice. The advantage of these sanitizers is their low cost and effectiveness but the disadvantage is its efficacy can be reduced by a lot of factors and easy to produce resistance. New novel bactericide is needed when efficacy of these traditional sanitizers is reduced like for controlling *Listeria monocytogenes* in floor drain contamination especially for ready to eat processing plant the procedure of bio control is needed because floor drain is too deep to reach. The product of bio control contains beneficial bacteria and these beneficial bacteria can live in the biofilm at harsh environment and these bacteria consistently produces various bacteriocins to kill *L. monocytogenes* and ensures floor drain without contamination of *L. monocytogenes* for long term.

Improving Food Regulation
The Food Safety Modernization Act (FSMA) is intended to reduce food borne illness by shifting emphasis from inspection by government agencies to prevention by food industries. Although several key FSMA provision are being adopted by industry but some major areas remain largely unaddressed. There are many issues which needs to be taken care of like water used for agricultural purposes. Sometimes the water itself is contaminated with certain

pathogenic bacteria which in turn lead to food borne outbreak. Food borne outbreaks occur with some regularity but recent advances in whole genome sequencing and other technologies are allowing regulators to identify microbial pathogens with greater accuracy than before.

Conclusion

The importance of the role of food in people's lives is unquestionable and within this context the theme of food safety is gaining strength every day principally due to its strong relationship with diverse food borne diseases. Food safety in the food market is one of the key areas of focus in public health, because it affects people of every age, race, gender and income level around the world. Therefore this review article holds importance to identify common public health risks related to food safety issues in the market.