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Editorial

Traceability and inspection: For safer food supply

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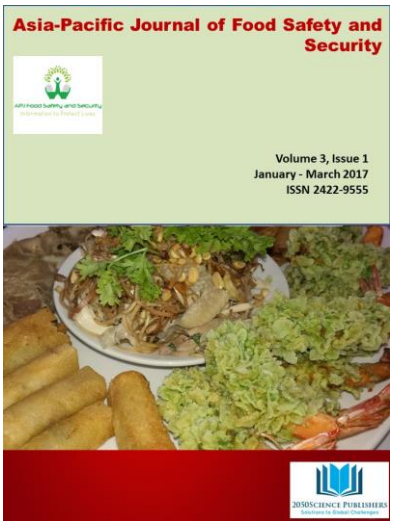

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Highlights

- Traceability is a tool that when applied to 'food inspection' provides protection for consumers from health hazards and counterfeits food products.
- Reliable traceability system ensures high-quality food inspection.
- Growing demand to develop simple and rapid geo-traceability techniques to deliver safer food for customers.

About Author

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Recently, traceability system has become one of the most important techniques used to ensure food safety, while the safety of food is an intrinsic part of food quality. Traceability is a paramount component of food safety management systems (FSMSs) and quality management systems (QMSs), in

addition to being a crucial factor for assuring food safety and public health. In the last decade, there has been a growing interest in the traceability of food products. This was mainly due to the food safety crises that have occurred in recent years. Such crises have led to an increase in implementation of FSMSs and QMSs in the food chain. Traceability is a tool that when applied to within the food inspection and certification system contributes to the protection of consumers against food-borne hazards, deceptive marketing practices, and facilitation of trade based on accurate product description.

Food inspection and traceability are common elements of commercial transactions in the food supply chain. The practice of inspecting raw materials delivered by a supplier has been used for centuries to ensure the quality and safety of a vendor's product. Traceability is used to improve supply management, increase safety and quality, and to differentiate finished food products based on credence attributes. One objective of food product inspection and traceability is to improve food safety by identifying the existence and the source of unsafe products. Knowing that unsafe food exists, and where it came from, makes is possible to eliminate the root cause of the problem[1].

The consumers are presently paying increased attention to the quality and authenticity of foodstuffs. International regulations allow food products to be distinguished by their specific characteristics and their geographical origin. Such agricultural products and foodstuffs may be protected from counterfeit by a Protected Designation of Origin (PDO), Protected Geographical Indication (PGI), or a Traditional Specialty Guaranteed (TSG) status under many international legislations.

So, the establishment of reliable geo-traceability approach will positively lead to ensure high-quality food inspection systems.

Already some geo-origin determining techniques are used in customs inspections and boarder protection to survey products on the market. Unfortunately, it is difficult to develop a 100% accurate approach for geo-traceability because the methods that have been developed to date are not foolproof. Hence the practical application of these techniques is primarily for surveillance. If a suspicious sample is identified, the fact of the labeling is confirmed by investigating invoices and tracing the flow of the sample from farm to fork. It is essential to develop reliable and rapid techniques for screening food products (both raw and processed).

Our new book entitled 'Molecular Techniques in Food Biology: Safety, Biotechnology, Authenticity & Traceability 2017 (John Wiley & Sons, Ltd., Chichester, UK)' presents the most recent and innovative technology-driven approaches that could reform the future of food traceability and inspection systems.

[1]Starbird, S.A. and Amanor-Boadu, V. (2004). Traceability, inspection, and food safety. American Agricultural Economics Association Annual Meeting, Denver, Colorado, USA.