Menace of Food Fraud in Nigeria and Its Implication

Abdullahi Yusuf Kofoworola (1,2,*) **Abdulkareem Najimudeen** (3,4)

Received: 02/11/2024 Revised: 11/11/2024 Accepted: 6/12/2024

© 2025 University of Science and Technology, Aden, Yemen. This article can be 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.

© 2025 جامعة العلوم والتكنولوجيا، المركز الرئيس عدن، اليمن. يمكن إعادة استخدام المادة المنشورة حسب رخصة مؤسسة المشاع الإبداعي شريطة الاستشهاد بالمؤلف والمجلة.

¹ Department of Food Science and Technology; Faculty of Agriculture and Agricultural Technology; Aliko Danogote University of Science and Technology Wudil Kano-Nigeria.

² Crown Flour Mill - Animal Feed and Protein @ Olam Group of Company-

³ Department of Microbiology; Faculty of Science; Aliko Danogote University of Science and Technology Wudil Kano-Nigeria.

³ National Agency for Food and Drugs Administration and Control (NAFDAC), Kaduna Area Laboratory; Kaduna State-Nigeria. Email: najimudeen1996@gmail.com

^{*} Corresponding Author Address: abdullahiyusuf984@gmail.com

Menace of Food Fraud in Nigeria and Its Implication

Abdullahi Yusuf Kofoworola

Department of Food Science and Technology;

Faculty of Agriculture and Agricultural Technology;

Aliko Danogote University of Science and Technology

Wudil Kano-Nigeria.

abdullahiyusuf984@gmail.com

Abstract— Food is any substance that nourish the body which required by all human being to provide important nutritional benefits for growth and development. Food fraud is a major problem threatening food security in Nigeria. It's define as the subtitution of food and ingredients with cheaper alternative, adulteration, working with fradulent permit and forging of food labels. It is a practice that has serious implications to both consumers and the businessmen which can lead to food poisoning, foodborne disease, malnutrition, food allergien and reputation damage, fine and banned respectively. This paper present the practice and implications of food fraud to the consumers and the businessmen in Nigeria.

Keywords — : Food, Food Fraud, Nigeria, Implications

I. INTRODUCTION

Food is any substance that nourishes the body which is required by all human being to provide essential nutritional benefit for their growth and development. Food to be consume must to be safe and be in its purest form without adulterated or any forms of food fraud before consumption. However, Nigeria is a developing country where different food crops are processing from raw to finished end products which needs to meet the nutritional requirement for the people living around the country and be safe for consumption.

In 2019, a case of food fraud was reported by National Agency for Food and Drugs Administration (NAFDAC) about an expired rice which was revalidated and local rice that was repackaged as foreign rice by dishonest businessmen and dealers. Therefore, the agency further explained that, the expired rice contain mould and pathogenic microorganisms which can easily cause diseases and severe illness it's unsafe for consumption (NAFDAC, 2019).

A. Concept Definition
1. Definition

Abdulkareem Najimudeen

Department of Microbiology; Faculty of Science; Aliko Danogote University of Science and Technology; National Agency for Food and Drugs Administration and Control (NAFDAC), Kaduna Area Laboratory Wudil Kano-Nigeria.

najimudeen1996@gmail.com

Food Fraud: According to Food and Drug Administration (FDA) of the united state, food fraud is define as fraudulent and intentional addition or subtitution of a substance in a product or a product itself with the aim of increasing its apparent financial value or a reduction in the cost of production of such product (Spink et al., 2019). It includes subtitution of food and ingredients with cheaper alternative, adulteration, working with fradulent permit and forging of food labels (Points and Mannings, 2020).

B. TYPES OF FOOD FRAUD

According to Spink and Moyer (2011), food fraud are categorized into the following different types.

- Adulteration
- Temper
- Theft
- Diversion
- Simulation
- Counterfeiting
- **Adulteration:** Adulteration is when a component of finished product is fradulent.
- **Temper:** This is when a legitimate products and packaging materials are use fraudulently.
- **Theft:** This is when a legitimate products are made in excess or below the production agreement.
- **Diversion:** This is a process where the distribution of a legitimate products is outside the intentended market.
- Simulation: This is when illegitimate products are designed to look like legitimate products but not exactly copy the legitimate products.
- **Counterfeiting:** This is when all aspects of the fraudulated products are packed and fully replicated.

C. FOOD FRAUD AND ITS IMPLICATION IN NIGERIA

1. Incident of Food Fraud in Nigeria

Food fraud is a major threat to food security and public health in Nigeria. In 2019, the office of National Agency of Food and Drug Administration (NAFDAC) at Ogun State received a report from the Department of State Services (DSS) on the issue of food fraud happened at Oke-Aje market in Ijebu Ode where businessmen and traders revalidated an expired rice and repacked local rice as foreign rice.

During the investigation by the National Agency of Food and Drug Administration (NAFDAC) and the Department of State Services (DSS), it was discovered that caked rice, expired rice, sealing machine and bags of local rice which was repackaged as popular well known foreign rice were found in three different shops. The agency further announced that the caked and the expired rice contains mould and pathogenic microorganisms and it can leads to serious illness if consumed (NAFDAC, 2019a).

Another case happened on 11th of November, 2019 where NAFDAC informed the public on the contaminated frozen raspberries imported from China. This was detected that the raspberries have been contaminated by norovirus in Germany and the agency warmed the public not to consume such product because norovirus is a pathogenic microorganisms which causes diarrhea and vomiting and also warned the importer to stop importing such product to Nigeria (NAFDAC, 2019b).

D. MOST COMMON ADULTERATED FOOD IN NIGERIA

- Rice
- Honey
- Oil
- Milk
- Spices
- Coffee ettc

E. IMPLICATION FO FOOD FRAUD TO PUBLIC HEALTH AND THE TRADERS IN NIGERIA

1. Implication of Food Fraud to Public Health

Food fraud can easily contribute serious issues to public health base on below explanation

- Malnutrition: This is when the consumers do no obtain the important nutritional benefits from the food or the food products they consume which includes vitamins and minerals due to adulteration (substitution or modification) that makes these essential nutrients to be unavailable (Spink and Moyer 2011).
- Allergy: This is when food contains unlabeled ingredients such as gluten, lactose and other allergic nutrients, this may lead to severe or chronic illness to the consumers.
- **Food poisoning:** Food poisoning is an unwanted illness or disease that caused by food after

consumption. This may results when a business man or a food manufacture repacked an expired food products as new products or mistempering of food during processing.

2. Implication of Food Fraud to Traders or Businessmen

Many of Nigeria importers and business traders have been the victim of food fraud in many cases in Nigeria. For example, on 30th of November (2018), a women called Mrs Esther Akinsanya was convicted by the Federal High Court in Lagos State for misbranded and adulterated sugar and rebagged snuggled. The women was asked to pay the sum of ₹1,300,000.00 ordered by the Federal High Court (Opia, 2020a).

In Katsina State, the operative agency arrested three suspects for distribution and sales of banned and rebagged sugar and was fined with the sum of ₹100,050.00 each by the Federal High Court in Katsina State (Opia, 2020a).

F. HOW TO CONTROL OF FOOD FRAUD IN NIGERIA

Food fraud has been a major threat to food security and food safety in Nigeria. It is important to control the practice of food fraud through the government agencies which are to make sure to provide consumer's protection from what they consume and to ensure that food contains the important nutritional benefits in order to meet the nutritional requirements for the people living in Nigeria. Food producers and processors, food handlers and manufacturers, food traders are responsible to ensure delivering of safer food to the consumers. And also, consumers are also responsible for the safety of food which are to store at appropriate condition and to ensure personal hygiene during food preparation.

The following bodies are developed to ensure food safety standards and control of any forms of food fraud in Nigeria:

- Federal Ministry of Health (FMH)
- National Agency for Food and Drug Administration and Control (NAFDAC)
- Standards Organization of Nigeria (SON)
- Federal Ministry of Agriculture and Rural Development (FMARD)
- Nigerian Agricultural Quarantine Service (NAQS)
- Federal Competition and Consumer Protection Commission (FCCPC)

G. NAFDAC AND ITS FUNCTION TO CONTROL FOOD FRAUD AND TO ENSURE FOOD SAFETTY IN NIGERIA

National Agency of Food and Drug Administration (NAFDAC) was officially established in 1992 which is meant for ensuring food quality and food safety. According to the law of Federal Republic of Nigeria (LFN) 2004, the agency was established to regulate and control the manufacture, importation, exportation, distribution, advertisment, sales and use of food, drugs, cosmetics, medical devices, packaged water, chemicals and detergent which are collectively known as regulated products.

The National Agency of Food and Drug Administration (NAFDAC) consists of the following directorates offices, which include:

- Registration and Regulatory Affairs (R & R)
- Food Safety and Applied Nutrition (FSAN)
- Drug Evaluation and Research (DER) Directorate
- Chemical Evaluation and Research (CER)
 Directorate
- Laboratory Services Directorate
- Narcotics and Controlled Substances (NCS)
 Directorate
- Admin and Human Resource Management Directorate
- Planning Research and Statistics Directorate
- Finance and Accounts Directorate
- Legal Services Directorate

H. FUNCTIONS OF NAFDAC AND ITS ROLES TO ERADICATE FOOD FRAUD

According to Opia (2020b), the following are the major roles and functions of National Agency of Food and Drug Administration (NAFDAC) to eradicate food fraud, to ensure food safety and to ensure that consume get the quality of food they paid for.

- To regulate and control the regulated products
- To conduct appropriate tests and ensure compliance with standard specifications.
- To undertake appropriate investigation into the production premises and raw materials for regulated products.
- To undertake inspection of imported regulated products and establish relevant quality assurance systems.
- To compile standard specifications, regulations and guidelines for the production, importation, sales, distribution and registration of regulated food products.

- To undertake the registration of foods, drugs, cosmetics, medical devices, bottled water, chemicals and detergents.
- To control the exportation and issue quality certification of food products intended for export.
- To establish and maintain relevant laboratories as it's required by its functions.
- To pronounce on the quality and safety of food products after appropriate analysis.
- To advice governments, the private sector and other interested bodies regarding the quality, safety and regulatory provisions on regulated products.

II. CONCLUSION

From the above information, it is concluded that food fraud has been the most significant problem facing Nigeria food security. People are practicing food fraud without considering the public health and national development.

However, it is necessary for the government agency and other regulatory bodies to ensure safer food from the food manufacturers and the businessmen or dealers by carrying out appropriate analysis on all food products whether produced in Nigeria or import from any other countries to Nigeria in order to keep Nigerians in good health and proper wellbeing. Therefore, government should provide adequate facilities for the regulatory bodies and justice must be done on whoever involved in an illicit (food fraud) practice.

III. REFERENCES

- J. Moore, J. Spink, and M. Lipp, "Development and application of database of food ingredient fraud and economically motivated adulteration from 1980– 2010," *Journal of Food Science*, vol. 77, pp. R118– R126, 2012.
- 2. NAFDAC, "Revalidation of expired date of rice and repackaging of local rice as foreign rice," 2019.
- NAFDAC, "Re-validation of expiry dates of rice and re-packaging of local rice as foreign rice," [Online]. Available: https://www.nafdac.gov.ng/re-validation-of-expiry-dates-of-rice-and-re-packaging-of-local-rice-asforeign-rice/. [Accessed: Dec. 11, 2019].
- NAFDAC, "Public Alert No: 0020/2019 Alert on frozen raspberries contaminated with norovirus from China," [Online]. Available: https://www.nafadc.gov.ng/public-alert-no-0020-2019-alert-on-frozenraspberries-contaminated-with-norovirus-from-china/. [Accessed: Dec. 11, 2019].

- 5. J. E. Opia, *Food Fraud in Nigeria: Challenges, Risk and Solution*, Master's dissertation, Technology University of Dublin, 2020, p. 55.
- 6. J. E. Opia, *Food Fraud in Nigeria: Challenges, Risk and Solution*, Master's dissertation, Technology University of Dublin, 2020, pp. 68–70.
- 7. L. Points and L. Mannings, "Facing up to food fraud in a pandemic," *Food Science and Technology Journal*, vol. 34, no. 3, pp. 1–23, 2020.
- 8. K. Robson, M. Dean, S. Haughay, and C. Elliott, "A comprehensive review of food fraud terminologies and food fraud mitigation guides," *Food Control*, vol. 120, 2021.
- 9. J. Spink and D. C. Moyer, "Defining the public health threat of food fraud," *Journal of Food Science*, vol. 76, no. 9, pp. R157–R162, 2011.
- 10. J. Spink and D. C. Moyer, "Defining the public health threat of food fraud," *Journal of Food Science*, vol. 76, no. 9, pp. R157–R163, 2011.
- J. Spink, B. Bedard, J. Keogh, D. C. Moyer, J. Scimeca, and A. Vasan, "International survey of food fraud and related terminology: Preliminary result and discussion," *Journal of Food Science*, vol. 84, pp. 2708–2718, 2019.