COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH FOOD RESEARCH INSTITUTE

TECHNICAL REPORT ON REPORT ON A 2-DAY FOOD FAIR ORGANIZED BY THE CSIR FOOD RESEARCH INSTITUTE IN PARTNERSHIP WITH THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS CSIR-FRI/RE/O-YC/2022/011



October, 2022

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FOOD FAIR COMMITTEE MEMBERS

- 1. Dr. (Mrs.) Charlotte Oduro-Yeboah- Chairperson
- 2. Dr. Emmanuel Kyereh Member
- 3. Dr. Jolene Nyako- Member
- 4. Mrs. Vivian Anane- Member
- 5. Dr. Francisca Ansah- Member
- 6. Mrs. Evelyn Buckman- Member
- 7. Mr. Thomas Najah- Member
- 8. Mr. Christian Amegah- Member
- 9. Miss Jennifer Nyako- Member
- 10. Miss Anita Adusah- Member/Secretary

LIST OF SPONSORS

- 1. Ghana Gas Company Limited
- 2. Ghana Commercial Bank (GCB)Limited
- 3. Cocoa Touton Ghana Limited
- 4. Sir Cool -CSIR-Water Research Institute
- 5. World Food Program (WFP)
- 6. Societe Generale
- 7. Cocoa Processing Limited.
- 8. Niche Cocoa.

1.0 INTRODUCTION

Food safety concerns have recently increased in several segments - production, postharvest handling, processing, packaging, and marketing of the food value chain. This includes, among other issues, heavy metals, pesticide and antibiotic residues, antimicrobial resistance, undetected insects, aflatoxin contamination, risks from metals used in food processing and packaging, migration of plasticizers into food and food adulteration. As a result, trust in the food system is declining. The multistakeholder nature of food safety responsibilities further aggravate the situation mainly due to uncoordinated efforts. This limits, the country's ability to realize the potential advantages of the food and agricultural sectors in terms of foreign exchange earnings, economic growth, food security and the provision of better livelihoods. In contributing to efforts towards addressing the present food safety issues, the Council for Scientific and Industrial Research (CSIR)-Food Research Institute aimed at promoting a coordinated action among researchers, academia, food industry, development partners, investors, and consumers / media to enhance the effectiveness of food safety regulators through this year's World Food Day Celebration. Theme: Leave no one behind. Better production, better nutrition, a better environment, and a better life. 2. Food Fair Theme "Safe food today for a better life tomorrow" The CSIR-Food Research Institute has a mandate to conduct applied market oriented research into problems of food processing and preservation, food safety, marketing, distribution and utilization, and national food and nutritional security in support of the food industry and advice government on its food policy.

A ten (10) member committee was instituted to organize the fair. The team was reconstituted into subcommittees namely: Protocol, Finance, Media, Prospecting and Food teams. The committee sought to involve every organization along the food value chain, in the 2022 Food Fair which was under the theme: **"Safe Food Today For A Better Life Tomorrow".** Six (6) categories of organizations were chosen namely: SMEs, Regulatory Bodies, Insurance companies, Banks, Telecos, Media houses, and all CSIR sister Institutes. Over ninety (90) organizations were suggested by the team. The prospecting team visited various organizations starting from 15th June through to 2nd September, 2022 using an institute car and on some days a member's personal vehicle. The team spent a total of about twenty-two (22) days prospecting for the three (3) months period, doing an average of three (3) days a week and five (5) organizations on a daily basis. In

addition to scheduling meetings and having phone calls, the team created a Whatsapp platform for further communication.

The fair commenced with a stakeholder discussion on food safety commitments which was followed by a food fair with side events on innovations, safety, and health practices in the food industry. The objectives were 1. To understand the root causes of the present food safety issues 2. To provide evidence on the effects of food safety risks in raw and processed plant and animal products on nutrition, food security, health, and economic growth. and 3. To create sustainable partnerships that will provide a mechanism for continuous information and technology transfer among public and private stakeholders. The event hosted about 90 exhibitors including food vendors, banks and insurance companies who play a key role in the food industry. However, food vendors were required to provide an Accra Metropolitan Assembly (AMA) health registration card to be part of the exhibition. Other small and medium scale enterprises without Food and Drugs Authority certification were provided with the necessary assistance during the fair for registration.

2.0 FOOD FAIR PROGRAMME

In commemoration of the 2022 World Food Day, the CSIR- Food Research Institute in collaboration with the Food and Agriculture Organization of the United Nations organized a two (2)-day food fair and stakeholder's forum on the theme <u>"Leave no one behind: Better production, better nutrition, a better environment, and a better life."</u> The event scheduled for the 13th and 14th of October, 2022 happened at the Forecourt of the CSIR- Food Research Institute, Shiashie - Accra. The program was in three (3) parts consisting of a stakeholders' forum, an innovative challenge prize, and an exhibition.

The day began with exhibitors' arrival and registration between the hours of 8 am to 10 am after which representatives from each exhibition stand were asked to join other exhibitors for the panel discussion on the theme "**RESEARCH MEETS INDUSTRY AND ACADEMIA**" in the Director's conference room. The master of ceremony for the two (2) days program was Mr. Kweku Temeng – Business News Editor, Starr FM/GH One TV.



Picture 1: The sod-cutting ceremony to mark the opening of the Food Fair

The session was graced with bigwigs from both industry and academia as well as government officials. Just to mention a few among the dignitaries were:

- 1. Prof. Paul Pinnock Bosu The Director General, CSIR
- 2. Prof. Charles Tortoe– Director, CSIR- Food Research Institute
- 3. Hon. Kweku Afriyie Minister for Environment, Science, Technology and Innovation
- 4. Ms. Wambui Mbugua World Food Program, Regional Procurement Officer
- 5. Mr. Roderick K. Daddey Adjei Food and Drugs Authority (FDA), The Deputy Chief Executive Officer (CEO) in charge of Food
- 6. Ms Anthea Ohene Ghana Enterprise Agency, Greater Accra Regional Director



Picture 2: Dignitaries present for the opening

3.0 OFFICIAL OPENING & FORUM

The opening for the celebration was a forum characterized with keynote speeches and stakeholders' discussion on food safety. At 10:14am, all in attendance were seated for the program to begin. The introduction of the moderator Mr. Ibrahim Asante, CSIR -Technology Development and Transfer Centre (TDTC) was done by the MC. Mr. Kweku Temeng. Mr. Asante then went on to do the introduction of dignitaries present.



Picture 3: Moderator of Forum, Mr. Ibrahim Asante, CSIR -TDTC



Picture 4: Master of ceremony: Mr. Kweku Temeng.

The welcome speech was delivered by the Director General of CSIR, Prof Paul Bosu, followed by a speech from the Minister for Food and Agriculture, which was read on his behalf by Mr. Peter Aboagye. The Honorable Minister for Environment, Science, Technology and Innovation also followed up with a remarkable keynote speech and finally a speech by Food and Agriculture Organization (FAO) and an opening remark by the FDA.



Picture 5: Welcome address by Prof. Paul Bosu, Director General of CSIR

- 1. Hon. Minister of MESTI,
- 2. Director, CSIR-FRI
- 3. Deputy Director, CSIR-FRI
- 4. Distinguished invited guest,
- 5. Media personnel
- 6. Ladies and Gentlemen,

Good morning.

Today marks the celebration of the 2022 World Food Day and I am privileged to be part of this memorable occasion, and pleased to welcome you all to the CSIR-Food Research Institute, for the

honour done us by responding to our invitation. The theme for this year's celebration is, "Leave no one behind: better production, better nutrition, better environment and a better life".

Hon Minister, the celebration of a World Food Day was instituted by the Food & Agriculture Organisation (FAO) of the United Nations in 1945, and the rationale is not only about celebrating the amazing food that people have the privilege of indulging in, but to raise awareness for people who do not have such a privilege. Starvation is a serious problem in several countries around the world and there is in-depth need to raise awareness and curb the menace.

Hon Minister, ladies and gentlemen, millions of people around the world cannot afford a healthy and balance diet which puts them at higher risk of food insecurity and malnutrition. We all know the popular saying, "A hungry man is an angry man". It is therefore crucial that we do not spare any effort to ensure that we do not become too hungry ourselves, and not leave too many people hungry on the planet because the consequences can be dire

But, it's not just about providing food, or just anything that will go to fill our tummies. We need to eat well, we need to eat healthy. Hon Minster, the popular mantra **"chop better!"** may not necessarily mean we are eating well or eating healthy external senses. In recent times, food safety concerns have increased in several segments - production, post-harvest, handling, processing, packaging, and marketing of the food value chain. It also includes, among other issues, contamination of food with heavy metals, pesticide and antibiotic residues, undetected insects, and aflatoxin. Risks from metals used in food processing and packaging, migration of plasticisers into food and food adulteration all add to the problems we are confronted with today. Generally, the trust in the food system is declining globally.

Hon Minister, CSIR is committed to playing our part towards the attainment of food security objectives in our dear country, in the spirit of **SDG Goal 2 - Zero Hunger.** As part of the programme for the day, there will be stakeholder discussions on food safety commitments which will be followed by a food fair with side events on innovations, safety, and health practices in the food industry. The objectives are:

- 1. To understand the root causes of the present food safety issues;
- 2. To provide evidence on the effects of food safety risks in raw and processed plant and animal products on nutrition, food security, health, and economic growth, and
- 3. To create sustainable partnerships that will provide a mechanism for continuous information and technology transfer among public and private stakeholders.

Honourable Minister, ladies and gentlemen, the event will be hosting ninety (90) exhibitors including food vendors, banks and insurance companies who play a key role in the food industry. On this note, I welcome you all to this celebration. It is my hope that each one of us will fully participate in the program to make it a success. Thank you.

Speech as delivered by Mr. Peter Aboagye, MoFA on behalf of the Hon. Minister of Food and Agriculture, Dr. Owusu Afriyie Akoto at the 42nd World Food Day Celebration at Food

Research Institute, Accra

Mr. Chairman The Country Directors of the UN Agencies: FAO and WFP The Director General, Council for Scientific and Industrial Research, CSIR The Director of Food Research Institute, the host The Chief Executive of Food and Drugs Authority The Chief Executive of Ghana Standard Authority The representatives from the Ministries Departments and Agencies Academia Friends of the Media Distinguished Ladies and Gentlemen

I count it all joy to join hands with you to observe this important day, i.e. the 42nd World Food Day Celebration, which is a day set aside to promote global awareness and action towards those who suffer from hunger and also to highlight the need to ensure healthy diets for all.

I wish to commend FAO for this initiative and the government of Ghana for its relentless support to achieve food security and optimal nutrition, not forgetting the contribution of World Food program (WFP).

Mr. Chairman

As we are all aware, a nation whose populace is malnourished cannot be said to be developed. This is a wake-up call for policy direction to reverse the trend. It is in line with this that the ministry rolled out the flagship programs, namely, fertilizer and seed subsidy, expansion of Greenhouse Village, Rearing for food and jobs, etc. to promote agricultural productivity, transformation, and create employment and increased access to nutritious food.

Mr. Chairman

The theme for this year's commemoration 'Safe Food Today for a Better Life Tomorrow' is just appropriate. It has come at a time when there is increasing demand for safer foods and environmental sustainability. Our food system as it is will not be able to sustain us if we do not focus on environmental concerns such as pollution of our water bodies, illegal fishing methods, bad farming practices and poor handling of agricultural produce.

In order to promote sustainable agriculture, the concept of agro-ecology or organic farming would be deepened. It is gratifying to note there is increasing production and use of organic fertilizers and organic-agro inputs. We now have about 30 companies who are actively producing organic fertilizers. More private investment in our food systems are highly welcomed and my ministry would assist the investors to succeed.

Mr. Chairman,

I wish to inform you that MOFA collaborated with FDA and local government to develop food safety guidelines, which the various assemblies are yet to ratify. We are also happy to note that the food safety policy has been launched. Strict implementation of the guidelines and the policy would go a long way to ensure safe food for all. I again wish to commend the efforts of CSIR to reduce the levels of aflatoxin in our foods. Indeed greater number of the institutes of the council work closely with the Ministry of Food and Agriculture to ensure safe and nutritious foods are made available to Ghanaians.

Mr. Chairman,

Not too long ago the government committed itself to improving the nutritional status and health of its people by undertaking the following actions concluded on, in the 2021 UN food systems dialogues:

- Reduce levels of food loss (currently > 20%) and increased dietary diversity based on increased production and consumption of nutrient-rich foods (including biofortified staples), supported by an improved infrastructure for transportation, storage, distribution, and processing
- 2. Higher productivity of the production systems with diverse nutritious crops (cereals, legumes, roots and tubers, fruits, and vegetables etc.) produced through sustainable and land-sparing strategies, as well as measures that ensure food safety and year-round vegetable cultivation.
- 3. Effective agricultural policies and programs ensuring increased focus on the production of more nutritious crops such as fruits and vegetables, and animal source foods and

4. Increased production from the fisheries, aquaculture, small ruminants, and poultry subsectors providing affordable animal protein, and increased consumer interest in more nutritious diets.

Mr. Chairman,

As we are meticulous in producing food and other products to meet international markets, the story should not be different when it comes to producing for local market. Just to cite an example, Sudan IV dye was found in palm oil in our local market some time back, which took the intervention of FDA and partners to save the situation.

We all deserve safe foods and we all need to do our part in ensuring that safe and nutritious foods are made available for ourselves. If we cannot do anything at all, we can report actors engaging in unapproved practices to the appropriate institutions.

In conclusion, we should continue to ponder upon the theme for the year, to help us all contribute our quota towards getting safer and nutritious foods for a healthy and productive populace tomorrow.

I wish you all a memorable commemoration.

Thank you all for your attention



Picture 6: Keynote Address from the Hon. Minister of Environment, Science, Technology and Innovation – Dr. Kweku Afriyie.

"The Director General of CSIR, the Deputy, let me say colleagues

I am here this morning to commemorate and celebrate World Food Day. But let me say from the onset, that I am amazed by the way Ghanaians look at nutrition and food. We can get out of this mess; going to IMF and all through food, import subsidy. Do you know how much money we use to import food into the country? Without being hyperbolic, if we change our lifestyle the way we should train our olfactory nerves, we can change the destiny of Ghana. If we change our crave for foreign foods, we will be implementing import substitution. That is why when I was appointed the minister for environment science and innovation, it looked like all my life had conjured into one position that I cherish. Of all the political positions that I hold, I cherish this Ministry the most. All this while people don't hear about me it's not as if I haven't been around but it is not about me. I have been around for long. Lands forestry and minds, health insurance from concept to implementation. I tried competitive politics which I lost poorly. I was beaten to the core. The NDC

gave me an awakening. So Kuffour part 2, I was not part. And you know why? NDC gave me a big hiding. I took advantage of the opportunity and entered into commercial farming.

I am not here to promote myself but the younger generation this era belongs to you, seize the opportunity. Your minister wants to help, it is a plea. Those of you in the food industry, you must take the lead. As a politician my mandate is to inspire young people. We have to seize the moment. Covid has done us some good which you might not know. Covid has given us the opportunity to reset the button. I see nutrition as part of the tool. We have to avert to the fact that during the covid season food nationalism was on the horizon. Everybody was managing their food and thinking of how to feed their own population. Let's take advantage of the situation. It gives me great honor "3y3 me ahohuahua" that I am superintending over agencies that has so much potential for this country".

He gave complement to CSIR institutes for the wonderful innovations

"But you are not bringing yourself to the fall. CSIR should be at the forefront but unfortunately scientist were trained like doctors; they are trained to be self-evasion. But I am challenging my scientist here to be like Degraft Tyson, an American Astro-physicist astronomer.

It took an a typical person Mr. Degrft Tyson an American Astronoma to advice America on space technology when the American people thought space technology was useless and the government was over investing in space science. He was a great scientific communicator. I urge all our scientist, that somebody should occupy the public space and educate the Ghanaian public.

You are what you eat, let the average Ghanaian understand that and what kind of consequences you get when you don't eat right.

GMOs is an ethical problem but GMO in itself is not bad. I personally do not have a problem. But it can be used as a nutritional weapon, but that is a discussion for another day.

Another topic of discussion is the issue of aflatoxin, where our products are being rejected on the international markets."

"Forgive me if I am jumping from topic to topic, I'm sorry but I do not have any prepared speech But when you synthesize it you would realise I am making a lot of sense, I am not?"

As a society we have to organize ourselves. We have all the potential, we are left with marketing ourselves.

There is the need to recognize and emphasize on the fact that science is the tool to save our country, taking all matters into consideration.

"Science without action is empty"

"Action without science is blind"

Your minster can not do it alone. Your minister does not exactly want to be a back room person but sometimes you have to lead from behind. I can't be more popular than my scientists who are doing the work. It not always that you have to lead from in front, sometimes you have to lead from behind in science you mostly lead from behind, but when there is trouble then you come to lead from in front. Scientist should take the charge and lead. That is why today it is my pleasure to inaugurate the world food day and I noticed that inside here we have academia, food vendors, regulators whom we share mandates with. Forgive me if I did not meet you expectation as far as speech making is concern. Because you know why? I therefore move that today's world food day is duly inaugurated. Thank you.

4.0 STAKEHOLDERS FORUM ON FOOD SAFETY PANEL DISCUSSION:

Theme: Research Meets Industry and Academia.

Topic: Food Safety Commitments, the role of Researchers, Regulators, Academia, Food Industry Players, and Consumers.

Objectives:

- 1. To understand the root causes of the present safety issues.
- 2. To provide evidence on the effects of food safety risks in raw and processed plant and animal products on nutrition, food security, health and economic growth.
- 3. To create sustainable partnerships that will provide a mechanism for continuous technology transfer among public and private stakeholders.

At the end of the discussion, the challenges and concerns raised was to be addressed through the development of coordinated multi stakeholder food safety projects.

Panelists:

Dr. Benjamin K. Mintah. – CSIR- Food Research Institute.

- Dr. Joycelyn Quansah University of Ghana (Department on Nutrition & Food Science)
- Mr. Roderick K. Daddey Adjei Food & Drugs Authority

Mr. Andrew Lartey - Ghana Standards Authority

Ms. Anthea Ohene – Ghana Enterprise Agency

With Ibrahim Asante, Deputy CEO, CSIR-TDTC as the moderator for the session.

The forum commenced with a speech delivered by Ms. Wambui Mbugua, the representative of The World Food Programme on their behalf.

Question 1 posed by Moderator to panelists: What are the main issues or the main causes of food safety risks and what is the current situation in Africa, specifically Ghana.



Picture 7: The panel discussion of the Innovation challenge.

Responses from the panel:

Andrew Lartey – GSA. He proceeded to educate the audience about the mandates of Ghana Standards Authority (GSA) before responding to the question.

GSA is a government agency responsible for the development, publishing and promoting of standards. These are done through standardization and conformity assessment activities i.e. inspections, visits and certifications. These are done to ensure safety and reliability of the food we consume.

He attributed the main issue of food safety risk due to non-conformance to standards. 'Without standards there cannot be food safety' he emphasized. If manufacturers and food producers don't adhere to the relevant specifications and procedures laid down by the regulators, the food we consume can never be safe. He cited an example about farmers who produce fruits and vegetables. He stressed on the need for them to follow good agricultural practices and adhere to the recommended waiting periods when spraying their crops and with the use of fertilizer. He mentioned however, that some farmers in Ghana spray crops in the morning and harvest in the evening of the same day which leads to dangerous levels of pesticide residue left on the produce which is harmful to consumers.

Moderator to Andrew Lartey: What then is GSA doing to ensure farmers know these standards? Because if the farmers do not know the standards, how will they know whether or not they are conforming.

Response from Andrew Lartey: GSA works with regulatory agencies like FDA to develop standards and enforce its adherence. GSA also conducts sensitization programmes to educate farmers on the right usage of pesticides and the recommended waiting period between applications of pesticides on the crops.

Response by Dr. Jocelyn Quansah to the main question: She indicated that the causes of food safety begin right from the producer to the end user.

Producer: The use of pesticides without adherence to standards, wrong type, quantity and mode of application of fertilizer for growing crops, etc.

Seller: Unhygienic and Improper conditions under which food is handled, stored and later sold to the final consumers. She made reference to the hygienic state of most of our markets.

End-user/Final consumer: The way we handle and prepare the foodstuff we buy before eating can also pose food safety risks. Example, using the same chopping board for vegetables and meat among many other unadvisable practices.

Response by Ms. Anthea Ohene to main question: She added her view on the issue of nonconformity and compliance to standards and food safety practices, speaking on behalf on the micro, small and medium scale enterprises. She stated that most SMEs do not know what to comply with. For instance, if a micro entrepreneur wants to sell waakye or salads, all they need is their utensils, food stuff and the other resources to cook and sell. It is only the district assemblies that visit periodically to ensure appreciable level of cleanliness of the area. Therefore, the regulators like GSA and FDA must do more to create awareness on the existing standards in the manner that these entrepreneurs, many of which are not highly educated may understand.

Response by Dr. Mintah to the main question: He outlined a few issues of food safety risk and proposed some issues to address them. He mentioned the National Food Safety Policy and stressed on the need for the policy to be translated into various levels in order for the policy to be properly executed to achieve its mandate. He mentioned the need to have specific and tailored policies formed from the main national policy in our homes, our schools, food vending outlets, etc.

He added that the adulteration of food by producers to increase profits is a main causes of food safety issues. He mentioned the use of physical methods like stones added to beans and rice and chemicals such as Sudan IV oxide in palm oil as a few of the numerous ways food manufacturers and producers adulterate their produce that are posing alarming food safety issues.

He further added that lack of knowledge is another main cause of food safety issues in Ghana. However, knowledge alone does not translate to conformity. We need to encourage food safety behaviors which over time transforms into food safety culture.

Response by Mr. Roderick K. Daddey Adjei to the main question: He outlined some solutions to food safety risks that the FDA is currently implementing such as the Progressive License Scheme (*The Progressive Licensing Scheme is a Government of Ghana initiative that would be implemented by the FDA that seeks to introduce a three (3) staged licensing regime to support small business units to improve on the safety, quality and wholesomeness of their products and*

called for support from other agencies, food producers and the public to ensure the measures being put in pace work for the country.

He also spoke emphatically about the ease of entry into the food industry as being problematic and worrying and stressed that not anybody at all but only those who are well-trained and qualified should be allowed into the food industry.

Question 2: posed by Moderator to the Panelists: How does the main issues of food safety risks affect trade locally and internationally?

Responses:

Dr. Joycelyn Quansah: She cited the current issue of Cocoa exports from Ghana being rejected by Japan and admonished us to think about the effect of this on the economy of Ghana bearing in mind that Cocoa is one of the largest foreign exchange earners for the nation.

Mr. Andrew Lartey: He stated that the increase in illegal mining activities have led to the contamination of the waterbodies and soil that feed our crops leaving high traces of these contaminants in the produce of farmers.

He also mentioned that it is extremely difficult for our farmers to export legumes and cereals to the European markets due to their inability to meet their acceptable aflatoxin limits (4PPD). He associated this to the farmers not following good agricultural, storage and processing practices.

Moderator to Andrew Lartey (question 3): Why then do we wait for our exports to reach international markets just to be rejected? Are there not measures to test, check and advice farmers to meet requirements even before export? Are the ones that get rejected the ones that were exported behind the scenes?

Andrew Lartey: Any product that is exported requires rigorous testing ascertain its export worthiness. However, some producers have found a way to smuggle their produce outside the country but the producers who do the right things and follow due regulatory procedures always pass the export regulatory standard and gain acceptance.

Ms. Anthea Ohene to the main question. Since the issues of this risk on the local and international front was clear and had been discussed, she stressed on the fact that the best solution

to the issue is for the regulators to join forces with agencies like the Ghana Enterprises Agency and CSIR to intensify education and training to the farmers and food producers on how to meet export requirements.

The most memorable final words came from Mr. Roderick K. Daddey Adjei; "Food Safety, Food Safety.

Some notable contributions from the audience included;

Akwasi Akumia Ajakum: He mentioned that the issues of export rejection due to food safety concerns is mostly as a result of technological deficiencies. Thus, there is the need for the country to invest heavily in the food safety related technologies to aid the efficient production of sufficient safe product.

Saada Mohammed Asked about what was being done for our farmers since most of the problem with our famers has to do with drying. She emphasized, that there should be a bridge between the research and the farmers to aid them.

Larbi also mentioned that some waakye sellers have started using unknown color for the preparation of waakye and urged the scholars present to investigate.

Maureen Odoi, spoke about an observation she had made in relation to food that is placed on the floor at various market place. Upon enquiries from the market women, it was realized that customers are of the view that products that are on the floor are freshest. It is often assumed that there is not enough time to arrange fresh products on a table or bench to sell. Thus, the analogy that fresh produce is what is always found on floor. For this products on the floor such as the tubers and other forms of food often sell quicker than those arranged. There is the need to improve food safety education.

Dr. Angela Parry-Hanson Kunadu: Issues of food safety are often fueled by consumer needs and there is no better way to educate the public without the involvement of lecturers or academics and students.



Picture 8: Prof. Charles Tortoe gave his remarks about the discussions.

Finally, **Prof. Charles Tortoe** gave his remarks about the discussions for the day and his take home message was "Food safety is everyone's concern". There is therefore the need for industry, academia and regulators as well as consumers to do their bit to ensure food safety goals are achieved.

The moderator brought the session to a close.

5.0 INNOVATIVE CHALLENGE PRIZE

5.1 Speech by Ms. Wambui Mbugua, Regional Procurement Officer, WFP

Food is more than a basic human need - it is a human right. And it is not enough that vulnerable populations all over the world simply have access to food – they must have access to safe, nutritious, good quality food.

If it is not safe there is the risk to health which takes a toll on human capital and inadvertently the economy - Without safe food vulnerable people are at great risk of malnutrition, starvation and even death.

Today, 345 million people are facing acute food insecurity in 82 countries. This year WFP aspires to reach 152 million of those as part of the wider vision to achieve a world without hunger WF recognises there can never be food security without food safety.

Foiled by conflict, climate shocks and the hang over effects of Covid-19, the disruption of global supply chains is being felt everywhere, with the escalating cost of fuel and food pushing more people than ever to the brink of famine. We therefore must diversify our supply base, actively encourage local food sourcing and production with food safety and quality at the heart of this.

WFP Ghana is committed to supporting food safety and quality standards across all food processing and production activities and programmes. We embarked on a journey to work with local specialized nutritious food processors and through this experience have not only contributed to the creation of revenue streams for actors up and down the value chain but more importantly we have supported the development and implementation of best practices in food safety and quality.

We have done this in a number of ways:

1. Technically supporting food processors from primary material sourcing to finished products and working with government and other partners on initiatives that improve outcome such as reduced levels of aflatoxins.

2. Providing technical support on supplier management leading to selection of suppliers who are able to consistently supply safe raw materials.

3. Supporting suppliers with good raw material storage practices to reduce aflatoxin development during post-harvest.

4. Together with global testing partners, supporting FRI with raw material testing, including aflatoxin tests and promoting the development of testing capacity locally.

5. Support with finished product testing.

6. Including requirements for food processors to install optical sorters which can improve outcomes by detecting and rejecting mouldy grains.

7. Developing partnerships that promote first-line-of defence raw material quality management at the farmer level which ultimately produces raw materials with reduced aflatoxin. We have done this through a partnership with Sesi technologies - who have produced and supplied moisture meters to farmers.

8. Participation and support of government initiatives that seek to improve food safety at the National level.

Ghana is commended for various systems in place to ensure food safety, including the comprehensive Public Health Act 851 which was achieved through collaborating with various institutions across the value chain.

Ghana has also made great efforts to ensure existing systems are working efficiently including various food control activities, laboratory services, the food safety emergency response plan among others.

Every system needs continual improvement, and for Ghana the work being done by various actors is applauded. Recently the FDA launched an e-notification system for food safety, and this is an important development, especially in a time of increased global demand for quick turn around times, fast and evidence-based decision making.

An effective -notification system for food systems will improve recall efforts when needed, provide useful date for improving food control and provide food safety information to the general public to help them make more informed decisions about their food choices - and their health.

WFP Ghana is looking to ensure the sustainability of food quality and safety practices for future generations. Engaging with young people and harnessing deep pools of untapped potential is key if we are to steer the planet towards sustainable, nutritious and food secure future for us all.

We are therefore delighted to sponsor USD 2000 as the winning innovation competition prize in the category of **Best Artificial Intelligence and Digitization Solution for the Food Industry**.

In closing, as WFP Ghana continues in its efforts to be a facilitator in creating linkages with the various food systems value chain actors, we are firmly committed to continued collaboration with all stakeholders to improve food quality and safety for people in Ghana and beyond. After all, if it isn't safe, it isn't food. WFP would be delighted to collaborate on the proposed food safety project.

Wishing you all an enjoyable but reflective World Food Day Forum! Through the

deliberations let us ensure a food secure future and leave no one behind.

Aim: To promote innovative technologies that address, food production, food safety, nutrition and environmental issues while creating wealth, employment, and poverty reduction especially in rural areas.

There were three(3) awarding categories which included;

- 1. Food safety innovation award
- 2. Most innovative food business start-up award
- 3. Best Artificial Intelligence and Digitalization solution for the food industry.

Moderator for this session again was Mr. Ibrahim Asante of CSIR-STEPRI and Mr. Kweku Temeng – Business News Editor, Starr FM / GH One.

The afternoon saw interesting unique presentations from all classes of people, from student to business owners all presenting under the various categories.

The best artificial intelligence and digitization solution for the food industry; sponsored by the WFP was won by Mr. Francis Padi Lamptey- a Ph.D. student from the University of Cape Coast. His presentation was on how to use the Near-Infrared to detect weevils in raw materials for export such as Mango.



Picture 9: Ms. Wambui Mbugua, presenting the best artificial intelligence and digitization solution for the food industry sponsored by the WFP to Mr. Francis Padi Lamptey- a PhD student from the University of Cape-Coast

The most Innovative Food Business start-up award was won by Flexy foods who presented on substituting milk in chocolate production with extracts from local cereals, legumes and spices such as maize, cashew, tiger nuts, coconut and spices.



Picture 10: The most Innovative Food Business start-up award was won by Flexy foods

DAY 2: FRIDAY, OCTOBER 14, 2022.

PROMOTING SAFE HEALTHY AND NUTRITIOUS COMMERCIAL FOOD: FOOD PRODUCT CHALLENGE – (FAIR PARTICIPANTS)

FOOD PRODUCT CHALLENGE AWARDS

Some of the exhibitors at the fair are shown below:







The second day was mainly a food fair, where the exhibitors were awarded on the following categories;

- 1. Speciality foods (Vegan/vegetarian/gluten free/diabetic)
- 2. Indigenous food (Street food / Ghanaian food and drinks)
- 3. Beverage (Wine / fruit juice)
- 4. Chef's palette and Special food (Best food safety practices in cooking)
- 5. Processed foods (Baby food / Desserts and Sweets)

Award winning Exhibitors for various categories

1. Specialty foods:

1st place Whey Soyy Company

2nd Holistic

3rd Numbi Naturals

2. Indigenous foods

1st Aunty Mary Kenkey

2nd Pearlamin

3rd Rhutmix

3. Beverage

1st Fruit Splash

2nd Benyima

3rd Niche Cocoa

4. Chef's palette and Special food

1st Patvalt Catering Service

2nd Awo Catering Service

3rd Cuisine Art

5. Processed foods

1st Green Basket

2nd Home Foods

3rd Meannan

6.0 CHALLENGES

- 1. High charges from the Media houses before the fair limited media involvement for advertisement.
- 2. Most of the contacted companies declined to sponsor.
- 3. Lack of funds for the team
- 4. Format for the Innovation challenge should be timebound.
- 5. The Booth floor plans were missed arranged.
- 6. Sponsors should not be allocated exhibition booth because most of them were not available.
- 7. Late registration by exhibitors should be discouraged.

7.0 LESSONS LEARNT

- 1. The fair charges for the Exhibitors must be affordable to attract more exhibitors.
- 2. There should be proper allocation of booth for exhibitors selling similar products.
- 3. The Innovation challenge should be time bound.
- 4. CSIR Institutes must be charged a token for partaking in the fair
- 5. Thank you, letters must be sent immediately after the Fair, to all sponsors, vendors, speakers, and panel members.

6. Survey questionnaires must be administered to some exhibitors for feedback on the fair to help improve it.

8.0 RECOMMENDATION

The following recommendations are suggested:

- 1. Insurance sponsorship for the fair should be sought
- 2. Send scanned copies of letters to prospective sponsors and partners via email as back up.
- 3. Early dissemination of sponsorship letters to potential sponsors.
- 4. Budget for the team must be provided by CSIR-FRI.
- 5. Coupons system for food for exhibitors should be enforced.
- 6. Two (2) mobile phones are needed for the fair, one as merchant number and one for cold calling i.e. calling of sponsors and exhibitors.
- As a form of raising funds to support the fair, Food fair branded T- shirts must be sold to FRI Staff
- 8. Stand for CSIR exhibitors and CSIR products (CSIR village for the Fair) must be located at one side apart from the other exhibitors

9.0 CONCLUSION

In conclusion, firstly we thank all our partners, sponsors and all exhibitors for their support, time and dedication toward the Food Fair Celebration. The Food fair has become an annual celebration in the calendar of CSIR in marking the World Food day celebration. The involvement of all subcommittee members and CSIR-FRI management helped in the success of the CSIR Food fair 2022.

LIST OF EXHIBITORS

NO.COMPANY NAME	CONTACT PERSON'S NAME	CONTACT PERSON'S NUMBER
Delle's Coast Enterprise &		
1 Subsidiaries	Beullah Sallah	020 818 7333
3 Alabaster Packaging	Jojo Quayson	0207 9 6688
Berk's Homemade Foods &		
5 A-J Pemxian Ent	Angela Berkoh	024462023
6Flexy Foods	Lucy Akorfa	054434086
7Nkulenu Industries Ltd	Daniel Asare	020912994
Darsfield Village Farms	Mrs Karen Koko & Mr.	
8 and Outgrowers (Darsfarm)	Frank Agyekum	0243404941/0544585103
9Urban Jungle	Princess	0593220367/0208437987
10Selasie Foods	Fafali Azaglo	020817876
11 Yesli Ice Stand	Rita Aku-Shika Diabah	
12AABN/Urban Nutrition		024350074
Whesoyy Company		02020029
13 Limited	Shiela	
14Nature's Treasure	Tilly	059522232
Gold Coast Food Herbs and		
15 Spices	Patrick Essel/Alfred Amoah	0504150196/0269035369
16Patvelt Catering Service	Doris Fenuku	0545130700
Nutrition and Food Science		
17Department, UG	Dr. Joycelyn Quansah	024302861
FAO Supported Youth		
19Group	David Young	024485644
FAO Supported Youth		
20Group	U	024485644
21Nutri-Smart Ventures	Ernestina Amo-Mensah	024414696
	Mr. Andrew Lartey	0542865000/0242747441
Food and Drugs		
23 Administration	Jude/Esther Boateng	0558076798/
Holistic Wellness		
Consultant	Kenneth Otchere Boateng	0598334608/0247204314
Homefoods Processing and		
25 Cannery Limited	Victoria Donkor	055969686
Fisheries Commission		
26(Reserved) Fisheries		
27Commission(Reserved)		
28 Leador J. Enterprise	Dorcas Jones	024397061
*		
29 Eazzy Cuisine	Shika Fredua	024330112

Meannan Foods and Sava		
30Shea	Charity/Ruth	024428053
31Qualiplast Limited	Nana Poku	Mr Najah
33Fruit Splash	Mr. George Amponsah	054156474
34DownWell Insurance		
35 Jemima Asamaniwaa	Jemima Asamaniwaa	
36World Wide Group	Mr. Koney	024462081
37Benyima,		
38Cuisine Art,	Esther Love Asmah	055929955
39Awo Catering	Dorcas Jones	
40Green Basket		
Joseph Atinga Kebab 41	Joseph Atinga	024661276
Nuduvivi Foods Enterprise	Dori Fenuku	0545130700
Obibini Food and catering		
Venito ventures	Auntie Vivian	0246937437
Pearlamin Enterprise	Benjamin Adotey	024446713
Numbi Na Dibi Natural		
Foods Ventures	Fausina Ankrah Abradu	0247939010
Agro Kings 47	Naa Adei	020377549
Joankorf Trading Ent 48	Jemima Asamaniwaa	

CSIR INSTITUTES

CSIR-Animal Research Institute

CSIR- Crops Research Institute

CSIR-Oil Palm Research Institute

CSIR- Water Research Institute

CSIR-Plant Genetic Resources Research Institute

FOOD FAIR 2022

Sponsorship Package

PLATINUM (GH¢20,000 and above)

Sponsorship package includes:

- 1. Free two (2) executive stands at the event
- 2. Logo in all our social media platforms
- 3. Logo in print advertising and event banners
- 4. Inclusion on our website and in our sponsorship directory
- 5. 2 page ad in the event manual plus 3 months digital promotion of brand on website
- 6. A citation in recognition for your support

GOLD PACKAGE (between GH¢15,000 – GH¢19,999)

- 1. Free stand at the event
- 2. Logo in all our social media platforms
- 3. Logo in print advertising and event banners
- 4. Inclusion on our website and in our sponsorship directory
- 5. 1 page ad in the event manual plus 2 months digital promotion of brand on website
- 6. A citation in recognition for your support

SILVER PACKAGE (between GH¢10,000 – GH¢14,999)

- 1. Free standard stall at the event
- 2. Logo in all our social media platforms
- 3. Logo in print advertising and event banners
- 4. Inclusion on our website and in our sponsorship directory
- 5. Half page ad in the event manual plus 1 month digital promotion of brand on website
- 6. A citation in recognition for your support

BRONZ PACKAGE (between GH¢5,000 – GH¢9,999)

- 1. Free standard stall at the event
- 2. Inclusion on our website and in our sponsorship directory
- 3. ¹/₄ page ad in the event manual plus 2 weeks promotion of brand on website
- 4. A citation in recognition for your support

COPPER (amount below GH¢5,000)

- 1. Free standard stall at the event
- 2. 1 week promotion of brand on website
- 3. A citation in recognition for your support.

