



Quarterly Newsletter of the Partnership for Aflatoxin Control in Africa-African Union

VOL 4, July-September 2017



An aflatoxin testing center in Malawi, supported by AU-PACA © PACA

Upcoming events

- 2nd International Conference on Food Microbiology, 29-30 November 2017 Madrid, Spain.
- 8th International Conference on food Safety, Quality & Policy, 27-28 November 2017 Dubai, United Arab Emirates.
- First Africa Wide Workshop on Aflatoxin Control in Maize Value Chains, 4-5 December 2017, Dar es Salaam, Tanzania.
- Training Workshop on Aflatoxin Sampling and Testing Protocol for ECOWAS Region, 12-13 December 2017, Dakar, Senegal.

Vision

An Africa free from the harmful effects of aflatoxins.

Contact

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Dear PACA community members

We are pleased to present this issue of our newsletter with important updates and information on the progress being made in PACA pilot countries and elsewhere in Africa against aflatoxin contamination of food and cash crops.

I would like to focus my note on one point that came out of the 11th PACA Steering Committee (SC) meeting on 18-19 October 2017 in Abuja, Nigeria, where SC members resolved to enthusiastically endorse efforts to co-organize an International Food Safety Conference (IFSC) in the first trimester of 2019. This resolution, which was adopted on 19 October 2017 and has since been submitted to the Chairperson of the African Union Commission (AUC), supports the announcement made by the Director General of the Food and Agriculture Organization (FAO), Jose Graziano da Silva, at the opening plenary of the UN Committee on World Food Security on 9 October 2017.

AUC's former Commissioner for Agriculture and Rural Economy, Rhoda Peace Tumusiime, wrote to FAO and the World Health Organization (WHO) in May 2016 stating that, "...the AUC gives priority attention to aflatoxin control as one of the most pervasive food safety challenges in Africa. We have launched the Partnership for Aflatoxin Control in Africa (PACA) in October 2012 to support member states address the multi-sectoral challenge of aflatoxin control. We recognize that we have a long way to go and no single agency could possibly address the complex food safety challenges."

"Bold global leadership is required to stimulate the actions needed to address food safety challenges and that leadership is required immediately. The time is now for the same leadership being shown to embed nutrition in food security to fulfil the FAO definition of security by linking food safety with production and nutrition," she continued. "From the foregoing, the AUC envisions that the FAO and WHO host the first International Food Safety Conference in 2019 with cascading regional events." Prioritization of food safety at the global level, through events such as the proposed IFSC, is crucial to achieve meaningful changes in addressing the economic and social impacts of food safety at all levels.

Finally, I would like to congratulate Prof. Ruth Oniang'o, winner of the 2017 Africa Food Prize and co-winner Maïmouna Sidibe Coulibaly. Prof. Oniang'o is a strong advocate of aflatoxin control in Africa and we hope that you will find her life and contributions detailed in this newsletter inspiring.

Thank you for your support to aflatoxin control in Africa.

Amare Ayalew (PhD)

Program Manager, PACA, AUC



Stakeholders in Tanzania intensify support for aflatoxin mitigation



Work is underway in Tanzania to tackle aflatoxin contamination in the maize value chain © IITA

Great strides are being made in the fight against aflatoxins in Tanzania by the government and development organizations. For instance, the Tanzania Food and Drug Authority (TFDA) – under the Ministry of Health, Community Development, Gender, Elderly and Children – has agreed, at PACA's request, to host the first Africa-wide workshop on 'Aflatoxin Control in Maize Value Chains,' scheduled for December 2017. TFDA has rallied national stakeholders to establish a local task force to support the organization of this workshop.

A number of institutions have committed financial and logistical support to the organization of the workshop. The Centre of Excellence in Research, Teaching and Agricultural Advancement (CREATES), hosted by the Nelson Mandela African Institution of Science and Technology (NM- AIST), has committed US \$10,000 to support the workshop. The NM-AIST is one of the World Bank's African Centres of Excellence, created to contribute to food and nutrition security in sub-Saharan Africa. An award letter signed by Prof. Hulda Swai, CREATES Centre Director, explained that the workshop will sharpen her organization's understanding of how it can best address pertinent issues in the maize value chain for improved food quality and quantity in the region.

In addition to providing logistical support, the government of Tanzania has pledged financial support for the workshop. Dr. Happy Magoha, PACA Country Officer for Tanzania, described the encouraging enthusiasm shown by the Tanzanian government and other stakeholders, which she believes will go a long way to help improve management of aflatoxin in the country.



Nigeria launches Zero Reject Initiative to improve quality of exports

The Nigerian groundnut industry has seen better days. During the 1960s and 70s, Nigeria was among the leading exporters of groundnut in the world (Commodity chain analysis of groundnut sector in Nigeria). In 1961, the country produced 42% of the world's shelled groundnut exports, but by 2008 Nigeria had fallen completely out of international market competition



The Kano groundnut pyramids of the 1960s and 70s © Mbaye, World Bank, 2004

and the country is no longer listed among the world's major exporters (*Vanguard*, 2012).

A number of factors, including domestic policies, account for the decline in groundnut exports and, in recent years, difficulties in meeting aflatoxin standards have become a major contributing factor. However, groundnuts are not the only export commodity impacted by aflatoxins. In 2016, according to the country's National Agency for Food and Drug Administration and Control (NAFDAC), the European Union (EU) rejected 24 other exportable food products from Nigeria, in addition to groundnuts, for failing to meet food safety standards (PUNCH, 2017). The EU also extended for a further 3 years, the ban on some of Nigeria's food items such as beans, sesame seeds, melon seeds, dried fish, meat and groundnuts from entering European countries, which was meant to come to an end in June 2016 (The Authority, 2017).

While speaking in Abuja on 5 June 2017, Dr. Abubakar Jimoh, Director of Special Duties and spokesperson for the NAFDAC, disclosed that Nigeria's groundnut exports were rejected by the EU because they contained aflatoxin, which made the quality substandard (<u>PMNEWS, 2017</u>). In response to challenges related to aflatoxin contamination and other production problems regarding food quality and safety, which have been identified in agricultural products for export, the federal government of Nigeria has inaugurated a 26 member Standing Inter-Ministerial Technical Committee to help find solutions to these challenges (*Vanguard*, 2016). Since the establishment of this Committee, the federal government has launched a national campaign, the Zero Reject Initiative, to advocate a strategy for a single, export-oriented, agrocommodity management control system of Nigerian produce to meet international market standards.

The initiative was officially launched by Dr. Abdullahi Umar Ganduje, Governor of Kano State, on 28 August 2017 (*insideAREWA*, 2017), with support from the Aflasafe Technology Transfer and Commercialization (ATTC) project, under the International Institute of Tropical Agriculture and in partnership with the PACA Office, Nigeria. At the launch, ATTC presented Aflasafe, a bio-control product, as one solution to mitigate aflatoxin contamination.



Video documentary: increasing aflatoxin awareness in Malawi



A number of relevant stakeholders are featured in the documentary © PACA

The government of Malawi, through the Ministry of Industry, Trade and Tourism, has produced a video documentary to sensitize the public on the causes, risks, prevention and control of aflatoxins. The 15 minute documentary features champions from the public sector, consumer rights bodies, farmers' organizations, research institutions and other key actors in aflatoxin mitigation initiatives in Malawi.

The documentary forms part of the efforts by the government and other stakeholders in Malawi to intensify public education on aflatoxin contamination. The necessity of such efforts has been confirmed by various reports, which suggest that the majority of Malawian citizens, including major stakeholders like farmers, have inadequate information about aflatoxins.

In 2009, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) estimated that almost 40% of farmers in Malawi were not aware of aflatoxins (<u>Monyo, 2009</u>). Several reports have also shown that maize and groundnuts, which are the mainstay of the Malawian economy and primary source of livelihood for millions of smallholder farmers, have high levels aflatoxin contamination. In 2009, it was reported that aflatoxin levels in Malawi's groundnuts and maize were as high as 1,335 µg/kg and 3,871 µg/kg, respectively. These levels are way above the recommended safe limits of 4 µg/kg for the European market and 15 µg/kg for the Malawian market. This level of contamination has a detrimental effect on trade and the competitiveness of Malawian agricultural products. In the 1980s, groundnut was one of the country's major export commodities, but the trade collapsed in the early 1990s, mainly due to the high levels of aflatoxin.

Groundnuts and maize are also major staple foods in Malawi, respectively contributing to 80% and 60% of the populations' dietary needs (FAO). The Malawi population is therefore at risk of consuming dangerous levels of aflatoxins, which can lead to liver cancer and other health-related problems.

To ensure information about these threats reaches as wide an audience as possible, the video documentary will soon be premiered on various TV stations in Malawi. Copies will also be distributed to key institutions and development partners, and it will be accessible online via the PACA website.



Multi-faceted approach to tackling aflatoxin in The Gambia

In The Gambia, groundnut accounts for 66% of the country's total agricultural exports. About 45% of agricultural land is devoted to its production (International Trade Centre, 2015), and the groundnut sector employs nearly 70% of the country's workforce. However, the industry is being threatened by the increasing incidence of aflatoxin.

A collaborative study, initiated in 2013 by the Gambian Groundnut Corporation (the largest groundnut exporter in The Gambia) analyzed the aflatoxin levels in groundnut kernel samples from different regions. The study revealed that in some regions 40% of the samples had more than five times the permissible limit of aflatoxin, which suggests that aflatoxin contamination is a serious issue in the country.

Two years later, PACA commissioned an extensive study, the Country-led Aflatoxin and Food Safety Situation Analysis and Action Planning (C-SAAP), which revealed the negative impact of aflatoxin on the health and trade sectors in the country. The overall impact in monetary terms was estimated at between US \$7.86 million and US \$29.87 million – which is equivalent to 0.6-2.2% of GDP – with the health impact comprising 99.7% of the costs.

Based on the findings of the C-SAAP, PACA has supported the government of The Gambia to develop a 10-year plan, the National Aflatoxin Control Action Plan, to help address the complex challenge of stemming aflatoxin contamination in the country. A key goal in the plan is public sensitization, as it was established by the C-SAAP report that there was low level of awareness among the population about aflatoxins.

Thus, the Ministry of Agriculture, in partnership with the PACA Office in The Gambia have since begun a series of sensitization programs, including a week-long countrywide sensitization campaign in July 2017. The campaign covered localities in five regions, namely: Yundum in the West Coast Region, Jenoi in the Lower River



Farmers in The Gambia on field demonstration © PACA

Region, Kerewan in the North Bank Region, Basse in the Upper River Region, and Kuntaur and Sapu in the north and south of the Central River Region respectively.

Other stakeholders are also supporting different sensitization activities. The Aflasafe Technology Transfer and Commercialization (ATTC) project organized training and demonstrations in Barra – the Lower Niumi District of the North Bank Region – for over 30 farmers on the use of Aflasafe in August 2017. Additionally, The Gambia Investment & Export Promotion Agency, with funding from the Ministry of Agriculture and the ATTC, held a sensitization program for seven Regional Directors and their Extension Services Officers in Jenoi – the Lower River Region.

The government of The Gambia has gone further to endorse AflasafeSN01, an allnatural biocontrol product developed by the International Institute of Tropical Agriculture in collaboration with national and international partners, which was officially launched in Banjul on 24 March 2017. At the launch, Dr. Sait Drammeh, Permanent Secretary of the Ministry of Agriculture acknowledged the various measures adopted by the government to combat aflatoxin contamination, stating that, "The government is aware of the multidimensional negative impacts of aflatoxin." While, Ndey Naffie Ceesay, the PACA Country Officer for The Gambia revealed that, "Sometimes exporting countries are penalized by receiving countries for the destruction of aflatoxin-contaminated products."



Uganda takes further steps to mitigate aflatoxin

Aflatoxin contamination continues to adversely impact Uganda's agricultural sector, which remains the main source of livelihood in the country, employing 70% of the population.

Preliminary findings from Country-led Aflatoxin and Food Safety Situation Analysis and Action Planning for Uganda, commissioned by PACA and completed in 2015, revealed that US \$16.34 million in agricultural exports was lost each year due to aflatoxins.

It has also been established that aflatoxin contamination is

impacting the health sector in Uganda, with dietary exposure to aflatoxin recognized as the cause of hepatocellular carcinomas (a type of liver cancer) (Alpert et al., 1971).

What is Uganda doing to address these challenges?

With the support of PACA and the East African Community (EAC), the following interventions are underway:

- A multi-stakeholder national steering committee – the Uganda Mycotoxins Mitigation Steering Committee – has been established and provides strategic direction towards stemming mycotoxin contamination in Uganda;
- The Aflatoxin Technical Working Group has been active in providing in-depth guidance for the development and implementation of the national aflatoxin control plan;
- A 5-year Country Plan of Action for aflatoxin mitigation (2017-2022) has been developed;
- The Ministry of Trade, Industry and Cooperatives is exploring collaboration with relevant international and private sector institutions to ensure food safety in grain commodities;



Farmers in Uganda exhibiting disease resistant groundnut © PACA

- A proposal for public-private partnership directed towards aflatoxin mitigation is currently underway to encourage private sector companies to complement government efforts with information and campaigns, for example, inscribing information about aflatoxins on product packaging;
- The Ministry of Health, under its Community Health Programme, is jointly working with the African Union (AU) and the EAC to address food safety in the country;
- Plans are underway to expand the mandate of the National Drug Authority to include food safety matters through an Act of Parliament.

Grace Akao, PACA Country Officer for Uganda, explains that aflatoxin has recently generated a lot of stakeholder (public, private, non-state actors, development partners and donors) interest in Uganda, and attributes this to the sustained campaigns and advocacy initiated by PACA. Akao urged the line ministries (Agriculture, Trade and Health) and other stakeholders to seize upon this interest and take ownership of strategic aflatoxin mitigation efforts.



East African Community adopts multi-sectoral aflatoxin management approach

Aflatoxin contamination is a major threat to human and animal health in the East African Community (EAC). The negative economic impacts of aflatoxins are also significant, as trade in domestic and international markets suffers as a result of aflatoxin contamination in products.

In existing efforts to mitigate aflatoxin contamination at a national level in the EAC, partner states have remained fragmented and inadequately supported, both technically and financially. In recognition of the threat that aflatoxins pose to the EAC integration process, the 27th Meeting of the Council of Ministers directed the EAC Secretariat to design and implement a robust multi-sectoral project to mitigate the adverse impacts of aflatoxin contamination along the food and feed value chains, cutting across the agriculture, health, environment, trade and industry sectors.

As a result, the EAC Regional Project on aflatoxins was established to develop a multi-sectoral and pragmatic evidence-based Aflatoxin Prevention and Control Strategy. The Strategy, adopted by the Sectoral Council on Agriculture and Food Security in June 2017, provides the foundations for EAC partner states to build a coordinated and harmonized course of action in tackling the impacts and effects of aflatoxin. To ensure an inclusive stakeholder-driven and mutually supportive process, the EAC actively engaged key stakeholders, including PACA and the International Institute of Tropical Agriculture, in development of the Aflatoxin Prevention and Control strategy.

There is strong complementarity between the EAC Aflatoxin Strategy and Action Plan and the PACA Strategy. The PACA Strategy's thematic areas focus on: Research and Technology for the Prevention and Control of Aflatoxin; Policies, Legislation and Standards; Growing Commerce and Trade; Protecting Human Health from Aflatoxins; and Public Awareness, Advocacy and Communication. Whereas, the EAC strategic priority areas address: the impacts of aflatoxin on animal and human health; safety standards for food and feed; biological control of aflatoxin;



Aflatoxin contamination threatens both the health of the population and the economy in East Africa © IITA

post-harvest handling; alternative uses and disposal systems for contaminated products; economic impacts on trade; and enhancing communication and awareness.

PACA has been instrumental in supporting pilot EAC countries, including the Republic of Tanzania and the Republic of Uganda, to develop national action plans on aflatoxin control. This has also entailed the mainstreaming of the aflatoxin agenda in the national Comprehensive Africa Agriculture Development Programme Compacts and Investment Plans. These efforts have taken into consideration interventions encompassed by the EAC Aflatoxin Prevention and Control Strategy. Some of the key outputs under the project include development of 11 evidencebased multi-sectoral technical papers on aflatoxin and policy briefs aimed at creating awareness and informing policy action among high-level policymakers and other key stakeholders. Training courses and benchmarking visits have also been organized to sensitize and build the capacity of EAC partner states on aflatoxin management. The EAC project on aflatoxin prevention and control is financially supported by the United States Agency for International Development regional office based in Nairobi.



Prof. David Miller: Diversify the aflatoxin mitigation effort

This is an op-ed by Prof. David Miller, Carleton University, Ottawa, which is in-part an excerpt from a presentation he made at the 2017 Gordon Conference on Mycotoxins and Phycotoxins in the USA.

<u>Gordon Research Conferences</u> began in 1931 with the intention of "advancing the frontiers of scientific research". One such conference is <u>The 2017 Gordon</u> <u>Conference on Mycotoxins and Phycotoxins</u>, which took place between 18-23 June 2017. The conference provided an interactive platform for outstanding senior scientists, young investigators and students to contribute to the evolution of new strategies for dealing with the complex problems presented by naturally occurring toxins.

I was asked to give a talk on 'Mycotoxin Challenges in Low and Middle Income Countries: Sustainable Solutions for Health and Food Security' at one of the sessions. As I thought about the assignment, I looked back to the <u>turkey X disease</u> from 1961-1963. In this case, UK scientists and researchers solved the problem of aflatoxin contamination through regulatory recommendations based on the rodent carcinogenicity and animal toxicity of aflatoxin, which are not so different from those used today.

Minutes from a 1963 meeting of the UK Interdepartmental Working Party on Groundnut Toxicity observed, "The conditions which permit the development of A. flavus are now known. Most of the African countries are now aware of aflatoxin... Positive steps are being taken (or considered) to implement the suggestions that have been made on the time and method of harvesting, drying, thrashing, storage, transportation and on inspection procedures". Recommendations included realigning priorities to develop rapid analytical methods, to focus on human health not just trade, to develop crops resistant to mycotoxins and to develop improved training. The US Department of Agriculture reiterated essentially the same recommendations in 1975, as did the African Groundnut Council in 1976 and all three of the World Health Organization, the Food and Agriculture Organization and the UN Environment Programme meetings on mycotoxins (1977, 1988, and 1999).

This continuity tells me that people have been saying the same thing for many years:



Increased dietary diversity lowers aflatoxin risk © COMPACT 2025

- Firstly, one of the key recommendations of the <u>International Agency for Research on Cancer</u> (IARC) report, <u>Mycotoxin Control in Low- and</u> <u>Middle-income Countries</u>, called for investment in reliable, cheaper methods of measuring biomarkers for aflatoxin;
- Secondly, an increase in dietary diversity is recommended in order to provide improved nutrition, lower exposure to aflatoxin and fumonisin in high risk areas, as well as provide greater resilience to climate variability;
- Thirdly, there have been calls for improved knowledge translation. During our work for the IARC report, I became convinced of the necessity to develop culturally relevant and gender oriented knowledge and transfer packages for the many communities in Africa;
- Fourthly, mothers must be given the means to act. Even where there is some knowledge, the means to act are often not available. A study in Uganda showed that mothers in the villages knew that they should dry their groundnuts on a tarp to prevent aflatoxin, but they didn't have a tarp to do so (Zwick Center for Food and Resource Policy, Research Report No. 4, 2016).
- Finally, as has been discussed in reports from food companies in Europe and Africa, investment in any efforts to improve the value chain, whether for export markets or to urban areas in the region, should be encouraged.

Meeting these challenges requires breaking some tough technology barriers, but with a coordinated strategy it is possible.



Prof. Ruth Oniang'o wins the 2017 Africa Food Prize

Prof. Ruth Oniang'o, a leading advocate for nutrition in Africa is joint winner of the 2017 Africa Food Prize, "for her pioneering leadership in academia, research, and policy to improve food security and nutrition for millions in Africa; and for her ground-breaking work, with farmers' groups and rural communities, that connects agriculture and nutrition both in research and practice" (*7th African Green Revolution Forum Report*).

The other recipient is Maïmouna Sidibe Coulibaly, an entrepreneur and agro-industrialist from Mali. The <u>Africa Food Prize</u>, formerly known as the <u>Yara</u> <u>Prize</u>, was established to honour achievements in African agriculture. The award was announced at the <u>7th African Green Revolution Forum</u> held 4-8 September 2017 in Abidjan, Côte d'Ivoire.

The Chairperson of the Prize Committee, H.E. President Olusegun Obasanjo, former President of Nigeria, commended Prof. Oniang'o and Coulibaly on behalf of the Committee for their efforts to improve the socioeconomic wellbeing of millions in Africa through agriculture and nutrition initiatives. In her acceptance speech, Prof. Oniang'o said, "I believe we are what we eat. I realized early on in my life, when I dreamt of being a doctor, that food is the first medicine... I am a strong believer that Africa shall, one day, feed the world."

An academic, scientist and nutritionist, Prof. Oniang'o has pioneered nutrition leadership in academia, research, and policy to improve food security and nutrition across Africa, particularly in Kenya. She is the Chair of the <u>Sasakawa</u> <u>Africa Association</u> and <u>Sasakawa Fund for</u> <u>Extension Education</u>, two important agricultural intervention programs in Africa. Prof Oniang'o is also the Founder and Editor-in-Chief of the <u>African Journal of Food, Agriculture, Nutrition and</u> <u>Development</u> (AJFAND), which publishes scholarly articles from individuals with a keen interest in agriculture.

In 1993, she founded the Rural Outreach Programme, a non-profit organization aimed at boosting the livelihood of farmers through knowledge transfer of improved farming methods. In recognition of these achievements, Prof. Oniang'o is the recipient of several other



Prof. Ruth Oniang'o is an advocate of aflatoxin control in Africa © Mark Irungu, AGRA 2017

awards, including the Silver Star Medal and Woman of the Year 2000, awarded by the American Biographical Institute. In 2006 she was also awarded three fellowships as the International Union of Nutritional Sciences Fellow, the International Union of Food Science and Technology Fellow and the World Academy of Science and Art Fellow.

Prof. Oniang'o played a pioneering role in the formative years of PACA and in 2016 she dedicated a special issue of *AJFAND* to aflatoxins. The issue provided an important examination of the status of various efforts to assess and understand the effects of exposure to aflatoxins, as well as mitigation approaches in a number of locations in East Africa. Her leadership, as the Editor-in-Chief, has been key to the prioritization of aflatoxins in the journal, giving the topic the space and attention that it deserves.



Resolution of support for an International Food Safety Conference

The AUC convened the 11th meeting of the PACA Steering Committee (SC) – the apex leadership body of PACA – in Abuja, Nigeria from 18-19 October 2017. The meeting took note of the announcement by the Director General of the Food and Agriculture Organization (FAO), Jose Graziano da Silva, that FAO and the World Health Organization (WHO) would be co-organizing an International Conference on Food Safety (IFSC) in the first trimester of 2019, at the opening plenary of the UN Committee on World Food Security (UN CFS), 9 October 2017.

Director General da Silva stated that, "This [conference] will build on many aspects that were discussed during the ICN2 [Second International Conference on Nutrition]. And I urge the CFS to scale up its work on food safety in order to provide subsidies to the conference in less than 2 years-time."

Noting that on 17 May 2016, the African Union Commissioner of Rural Economy and Agriculture called for FAO and WHO to convene the first IFSC, PACA's SC enthusiastically acknowledges this important announcement and offers the following additional context and endorsement.

The context

Compelling global statistics from WHO and FAO illustrate the negative health, social, economic and environmental impacts of unsafe, contaminated foods:

- 4.5 billion people a year are exposed to mycotoxins, including aflatoxins, which contaminate 25% of the world's food supply;
- 1 in 10 people on our planet suffer from eating unsafe foods, as a result 600 million people fall ill, 420,000 die and 33 million healthy years of life are lost;
- 40% of incidents of foodborne disease occur in children under 5, predominantly in Africa and South East Asia, resulting in 125,000 deaths, as well as chronic infections and stunting among survivors;
- Sub-Saharan Africa has the highest rates of aflatoxin-related liver cancers, especially in women;

- Aflatoxin contamination prevents smallscale farmers from breaking the poverty cycle, as incomes remain depressed from unmarketable and rejected commodities;
- Between US \$600 million and US \$1 billion of lost export earnings in Africa are aflatoxin-related.

These facts underscore and contribute to the pervasive nature of contamination throughout food systems that:

- Thwart human and economic development;
- Deplete social and environmental resources;
- Burden health care systems around the world with multiple diseases, long-term morbidity and mortality;
- Impede national development and global peace;
- Act as a silent killer by causing micronutrient deficiencies, especially among women, children and infants;
- Spreads quickly through one food chain to a country's entire food system and then across national borders;
- Must be assessed, addressed and managed through a global lens.

PACA's strategy

PACA seeks an Africa free from the harmful effects of aflatoxins through the implementation of its strategic plan, which is closely aligned to the AUC:

- PACA's strategic plan is to provide leadership and coordination for Africa's aflatoxin control efforts by acting primarily as a catalyst, facilitator, partnership and knowledge broker, project developer and information clearinghouse;
- PACA advocates the establishment of enabling policies and institutions, increased investment, the mobilization of resources and the distribution of technical support for priority aflatoxin control activities;
- PACA aims to protect crops, livestock, and people from the impacts of aflatoxins in order



to contribute to improving food security, health and trade across the African continent;

- PACA's interventions are based on sound scientific evidence, risk assessments and concrete actions that can be uniquely accomplished by the multi-stakeholder partnership;
- PACA supports action by its member states to integrate comprehensive approaches, from policy and advocacy, capacity building, pre- and post-harvest measures into coherent regulations and standards;
- PACA proactively seeks to engage and meet the needs of resource-poor, women, children and youth, among other stakeholders, whilst ensuring all activities are economically and environmentally sustainable

FAO-WHO IFSC desired outcomes

PACA fully supports the convening of a coorganized FAO-WHO IFSC, for which it has the following desired outcomes:

- Heightened awareness of the essential need to fully embed food safety within the food security metric;
- Provision of the first of its kind platform to engage the capabilities and expertise of national leaders, UN agencies and other stakeholders to leverage and mobilize adequate resources to address food safety challenges through sustainable food management systems;
- Increased consciousness of ministers and other influential stakeholders of current food safety challenges to empower, equip and enable them to drive policies, programs and resources, which build the required capacities to address all forms of food safety hazards through coordinated national food safety and quality management systems;
- Identification and evaluation of new ideas for holistic policies, programs and initiatives to manage the harmful impacts of all forms of food safety hazards from farm to fork;
- Examination of existing solution pathways to raise the food safety bar across food systems and address food safety hazards, coinciding with the development of new and alternative

solutions via research and innovation initiatives;

- Recognition that no single entity can address the entire variety of food safety hazards and achieve the outcomes needed to ensure the sustainable provision of safe food for all people, and consequently encourage more multi-disciplinary and multi-sectoral partnerships and collaboration;
- Commitment to enhance the field work of UN agencies and help implement the ICN2
 Framework, Sustainable Development Goals, and the Decade of Action for Nutrition.

Looking forward

PACA supports the FAO's Director General in urging the UN CFS to scale up its work on food safety to provide subsidies to the IFSC in less than 2 years-time. The CFS is recognized as "the foremost inclusive international and intergovernmental platform for a broad range of committed stakeholders to work together in a coordinated manner and in support of countryled processes towards the elimination of hunger and ensuring food security and nutrition for all human beings."

The CFS should help to prepare its country members' representatives to effectively participate in the IFSC consistent with its role to:

- Coordinate and strengthen collaborative action among all actors at global, regional and national levels;
- Enhance policy convergence, including through the development of international strategies and policy guidelines in key areas for food security and nutrition;
- Support and advise countries and regions in the development, implementation, monitoring and evaluation of initiatives to embed food safety into food security.

During the 11th meeting of the PACA SC, given the heavy food security, health and trade burden of food safety problems in Africa, members agreed to enthusiastically endorse the planned 2019 IFSC and eagerly support its planning and implementation. The SC recommends that this conference be prominently convened in Africa, potentially at the AUC in Addis Ababa, Ethiopia.



Unsafe foods are a significant and pervasive global challenge that attack human society on a variety of levels, including nutrition, health, well-being and economic development and impact the daily lives of billions of people. Food safety risks are prevalent throughout the food supply chain from production, harvesting and transportation to processing, storage, and manufacturing, as well as at the consumer level. Since solution pathways already exist and are best deployed through multi-disciplinary and multi-sectoral partnerships and collaboration, we can look forward to more coordinated action to address food safety needs across Africa and beyond with significant results.

Membership of the PACA Steering Committee

- Dr. Godfrey Bahiigwa, Director for Rural Economy and Agriculture at the African Union Commission (Chair)
- Dr. Abdou Tenkouano, CEO, West and Central Africa Council for Agricultural Research and Development
- Dr. Ahmed Kablan, Senior Nutrition and Public Health Adviser, United States Agency for International Development
- Dr. Melanie Edwards, United States Agency for International Development
- Dr. Bonnie McClafferty, Director, Agriculture for Nutrition Program and the USA Office, Global Alliance for Improved Nutrition
- Dr. Joyce MulilaMitti, Food and Agriculture
 Organization

- Dr. Ranajit Bandyopadhyay, Africa Lead for Biological Control of Aflatoxins, International Institute of Tropical Agriculture
- Hon. Jesca Eriyo, Deputy Secretary General, Productive and Social Sectors, East African Community
- Mr. David Crean, Vice President, Mars, Incorporated
- Victor Nwosu, Plant Sciences Program Manager, Mars, Incorporated
- Mr. Ernest Aubee, Principal Programme
 Officer, Agriculture, Economic Community of
 West African States
- Mr. Kop'ep Dabugat, CEO, Comprehensive Africa Agriculture Development Programme Non-State Actors Coalition
- Mr. Stephen Muchiri, CEO, East Africa Farmer's Federation
- Ms. Amsale Mengistu, Senior Program Officer, Bill & Melinda Gates Foundation
- Ms. Lucy Muchoki, CEO, PanAfrican
 Agribusiness and Agroindustry Consortium
- Mr. Cris Muyunda, Director of Partnerships, PanAfrican Agribusiness and Agroindustry Consortium
- Prof. Brad Flett, President, African Society of Mycotoxicologists
- Dr. Amare Ayalew, PACA Program Manager, PACA Secretariat, AUC (Secretary)

Signed on behalf of the PACA Steering Committee, 24 October 2017

Chair

Secretary



What's new in the world of aflatoxins?

Innovative business models to scale-up aflatoxin control technologies in Kenya

The International Food Policy Research Institute is working with the Wageningen University and the International Institute of Tropical Agriculture (IITA) to develop and test business models for scaling up aflatoxin control technologies through farmer groups in Kenya.

<u>Plastic 'super-bags' rescue Zimbabwe grain</u> <u>farmers</u>

Hermetic storage in the form of thick, plastic 'super-bags' have been proven effective in reducing pest infestation and reducing aflatoxin contamination, in a new study by researchers in Zimbabwe.

<u>New study on aflatoxin contamination of</u> <u>groundnut and maize in Zambia</u>

The aims of the study were to quantify aflatoxins in maize and groundnuts across Zambia's three agro-ecologies and determine whether produce's vulnerability to aflatoxin contamination increases after purchase.

<u>Changes in the risk profile of Aflatoxin B1 in</u> <u>Spain</u>

The risk profile of contamination with <u>Aflatoxin</u> <u>B1</u> for Spanish maize has changed from 'Low' to 'Medium,' which means that maize originating from Spain must be analysed more frequently. The <u>changed protocol</u> took effect on July 7 2017.

Sensor-based sorting technology for aflatoxin detection

TOMRA has developed a sorting technology, involving a detox laser which utilizes a special optical design that can detect aflatoxin contamination. It works by identifying the extremely low intensity of light reflected by the aflatoxin mold and fungus in a variety of food types, from groundnuts, almonds and hazelnuts to dried fruit, such as figs. Infected food can then be removed and eliminated from the production process, helping to ensure a compliant end product.



IITA has been testing different aflatoxin control technologies © IITA



Since 2015, 120 hermetic bags have been distributed © Loveness K. Nyanga

