



Partnership  
for Aflatoxin  
Control in Africa

Partenariat pour la  
lutte contre les  
aflatoxines en Afrique

Parceria para o  
controlo das  
aflatoxinas na África

الشراكة من أجل التحكم في  
الأفلاتوكسين في أفريقيا

## Aflatoxin Partnership Newsletter

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### Dear PACA Community members,

We are pleased to present this issue of the PACA newsletter with important updates and information. PACA continues to enjoy strong leadership from the multi-sectoral Steering Committee that conducted its 7<sup>th</sup> meeting under the leadership of the African Union Commission. The Steering Committee met in Dakar, Senegal on 3-4 September 2015 and made important decisions and gave strategic guidance.

Three months ago, I reported that Tanzania became the first country in Africa to mainstream its evidenced based national aflatoxin control action plan through the Tanzania Agriculture and Food Security Investment Plan and the Agriculture Sector Development Program. In this quarter, Uganda made the decision to mainstream aflatoxin control as an integral element of national strategies by embedding it in the Agriculture Sector Strategic Plan (ASSP). Mainstreaming into national strategies is the recipe for sustainability, among many other functions to countries. The generation of evidence through Country-led Aflatoxin Situation Analysis and Action Planning (CSAAP) and the development of country plans based on the evidence produced will continue to be the focus of PACA Secretariat. We reiterate that the implementation phase is where the rubber meets the road. We invite PACA Community members to partner and support implementation of the national plans.

The successful workshop on “revamping the groundnut value chains of West Africa through aflatoxin mitigation” is another important action-oriented achievement in this quarter. It is worth noting that this workshop is the first in a series of efforts at enhancing value chains through aflatoxin control. Although aflatoxin contamination is a grandiose problem affecting wide ranging crop value chains, groundnut in West Africa has perhaps been hit the hardest. Addressing this bottleneck to export and utilization of groundnut will create the momentum to address other limitations too and boost the groundnut sub-sector to its former glory. Also, aflatoxin control in groundnut is foundational to food security in the region. Unsafe food is not food and the millions of people that consume groundnut as their staple have a right to safe food. The workshop identified “signature projects” to effectively deal with the aflatoxin challenge. In addition, value chain approach and stronger role of private sector, specifically Public Private Partnership, came out clearly from the workshop.

Last but not least, I would like to invite the PACA Community members to consider your support to an exciting forum being organized with Amref Health Africa. Read more in this issue.

Thank you for your support to aflatoxin control in Africa!

Amare Ayalew (PhD)  
Program Manager, PACA - AUC

## Stakeholders Identified Concrete Actions to Revive the Groundnut Value Chain of West Africa through Aflatoxin Mitigation



On 01-02 September 2015, PACA in collaboration with various partners organized a regional workshop on “Revamping the Groundnut Value Chain of West Africa through Aflatoxin Mitigation”. The workshop was held in Dakar, Senegal under the theme “Call for Action to enrich livelihoods and economies”. The meeting attracted participants from all over the continent and abroad.

Groundnut is one of the most important crops in the West African region used as staple food as well as a cash

crop. Its production, marketing and trade are major sources of employment, income and foreign exchange in many West African countries. During the 1960s, groundnut production and export in countries like Senegal and Nigeria was high. In recent years, most of the exporting countries of West Africa have faced major difficulties to export due to strict sanitary and phytosanitary requirements in importing countries. The decline in groundnut export is costing most West African countries millions of US dollars each year. The vibrant

groundnut sector went into disarray due to multiple reasons but the enforcement of strict aflatoxin standards and the difficult to export to major markets has been the major factor.

The groundnut workshop focused primarily on engaging the private sector as well as identifying gaps and providing concrete solutions such as creating an enabling environment for investment in aflatoxin technologies, enforcement of standards and regulations, and reducing production losses through aflatoxin mitigation.

The meeting objectives were to:

1. Share perspectives on the state of the aflatoxin challenge in groundnut value chains in West Africa and opportunities for intervention

## Stakeholders Identified Concrete Actions to Revive the Groundnut Value Chain of West Africa through Aflatoxin Mitigation– Continued

2. Discuss the current policy landscape of West African States in relation to aflatoxin control, food safety as well as trade and identify actions to address gaps

3. Discuss current technological practices for aflatoxin prevention and control and explore new options

4. Review and validate the ECOWAS Aflatoxin Control Action Plan as a step towards facilitating adoption in the region

5. Identify new, and strengthen existing partnership opportunities among national, regional and international stakeholders in aflatoxin management and agree on strategies for mobilizing required investments to support priority activities.

The meeting was officially opened by the Secretary General of the Ministry of Agriculture of Senegal, Dr. Dogo Seck, who emphasized the

importance of the groundnut value chain to the Senegalese household. The Senegalese population consumes groundnuts twice or thrice a day and the value chain is known to employ more than half of the population. Dr. Seck also highlighted the current state of the value chain in Senegal which has declined dramatically since the 1960s.

The SG confirms that Senegal was among the top producers and exporters of groundnuts in the 1960s. He says “Senegal still produces groundnuts but is unable to export its products due to various reasons but mainly due to aflatoxin contamination in our crops”. He therefore emphasized the importance of the workshop and its impeccable timing as Senegal is ready to address the issue of aflatoxin in Senegal in its entirety. The SG confirmed the governments’ commitment and ensured that it would closely follow the results of the workshop to ensure

its results are achieved.

Dr. Damilola Eniaiyaju, Director of the department of Agriculture of ministry of agriculture of Nigeria representing the Permanent secretary, also highlighted the importance of the groundnut value chain to West Africa as a whole and Nigeria in particular.

Dr. Eniaiyaju also stressed the need to address the aflatoxin problem not only for exporting purposes but also for the health of the population. As a carcinogen, aflatoxin is known to contribute to liver cancer cases in many countries. Dr. Janet Edeme, Head of Rural Economy Division at the African Union Commission reiterated the need for a comprehensive approach to mitigate aflatoxins and spark the revival process of the groundnut value chain that is vital to many West African economies and livelihoods.

## Uganda validated national aflatoxin control plan informed by evidence generated through PACA supported situational analysis

With the support of AU Commission through PACA, Uganda has developed and validated a comprehensive National Aflatoxin Control Plan. A Country-led Situation Analysis and Action



Planning (C-SAAP) for aflatoxin and food safety commissioned by PACA informed the national plan. National consultants housed at Makerere University and other institutions, conducted the CSAAP. They assessed the status of aflatoxin prevalence for maize, groundnuts and sorghum in Uganda, collected and collated information on the food safety systems that are in place for mitigating aflatoxins. The C-SAAP report was preliminarily validated on 30th April 2015 by the multi-sectoral Uganda Aflatoxin Technical Working Group and stakeholders from across Africa including representatives from the Common Market for Eastern and South-

ern Africa (COMESA), AUC, PACA Steering Committee and PACA Secretariat. The meeting was also attended by Tanzania and Malawi PACA focal points in order to encourage peer to peer learning and review.

The C-SAAP of Uganda identified recommendations as well as specific investment options for aflatoxin mitigation and to the strengthened food safety systems of the Country. Following which, in June 2015, the Republic of Uganda, in collaboration with the African Union Commission through PACA, reviewed the Aflatoxin Action Plan and analyzed entry points for mainstreaming into the Development Strategy and Investment Plan

(DSIP) of Uganda. The 'mainstreaming platform' brought together senior representatives from health trade and agriculture sector Ministries and relevant institutions, academia, development partners, private sector and

others who agreed to mainstream the action plan into the Uganda Agriculture Sector Strategic Plan (ASSP) which is aligned to the Comprehensive Africa Agriculture Development Program (CAADP).

Uganda is the second country, following Tanzania, that mainstreamed government-led and stakeholder aligned aflatoxin control plan into national strategies, showing strong commitments to address the key developmental challenge due to aflatoxins in a sustained manner.



## The African Union Commission and Nigeria hold the first roundtable discussion on implementation of activities on aflatoxin control



In 2015, Nigeria became PACA's sixth Pilot country to implement activities on aflatoxin control. The Nigerian government convened a roundtable discussion meeting on 8-9 June 2015 with the African Union Commission, ECOWAS and other partners to launch the country process and build consensus on approaches and timelines as well as roles and responsibilities. The meeting was held at the Nicon hotel in Abuja, Nigeria where high level participation was recorded. The Permanent Secretary of the Federal Ministry of Agriculture of Nigeria

opened the meeting while also inaugurating an Inter-Ministerial Committee on Mycotoxins. The meeting agreed on the formation of the PACA country Steering Committee (SC) and an Aflatoxin Technical Working Group (ATWG). The SC will be the ultimate body at the country level to guide and direct PACA activities. The ATWG will act as the technical arm of the SC in charge of all technical issues concerning PACA activities in Nigeria. Membership in both the SC and ATWG is diverse

and multi-sectoral. The meeting identified the Ministry of Agriculture as the focal institution for PACA activities collaborating with all stakeholders. The meeting participants agreed on many critical issues including the hiring of a PACA country officer and the various responsibilities of each ministry, organization and institution. The roundtable marked the beginning of a partnership between the Nigerian government, the African Union Commission through PACA, the ECOWAS Commission, the International Institute for Tropical Agriculture (IITA) and other stakeholders in mitigating the aflatoxin problem in Nigeria.



## News and Information on Aflatoxins

### Kenya approves Aflasafe KE01 for aflatoxin control

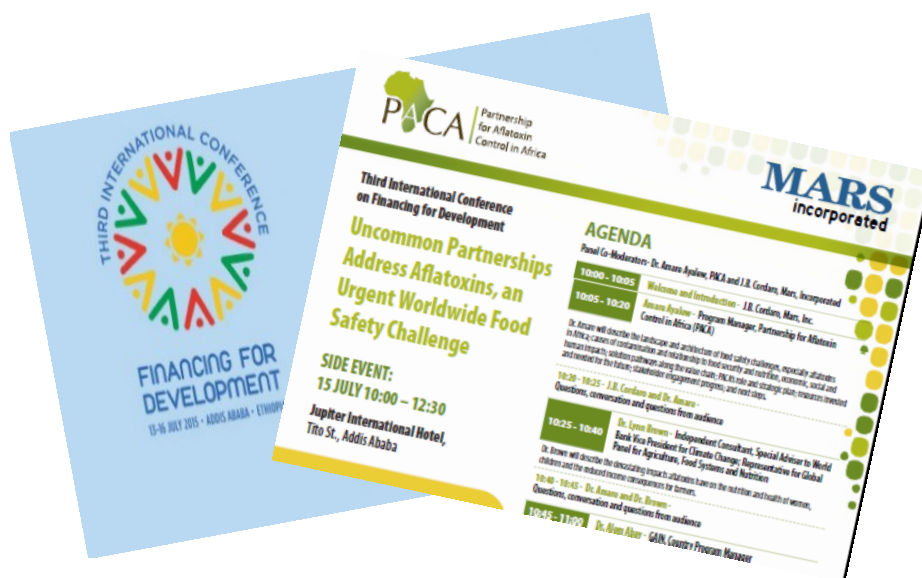
Aflatoxin contamination in food and feed has been a serious threat to humans and animals in Kenya. It is estimated that nearly 200 people including children died due to acute aflatoxin poisoning in the past few years. Concerned with the effects of aflatoxins on its people and economy, the Kenyan government allocated 1.5 billion shillings for aflatoxin mitigation early this year. In addition, in June 2015, the Pest Control Products Board (PCPB) granted full registration status to the biocontrol product Aflasafe KE01, with the Kenya Agricultural and Livestock Research Organization (KALRO) as the regis-

trant. Aflasafe is a biocontrol product used in the reduction of aflatoxins in the field. This biocontrol was first developed by the United States Department of Agriculture – Agriculture Research Service (USDA-ARS) and used in the United States for aflatoxin control. The product was later adapted by the International Institute for Tropical Agriculture (IITA) in collaboration with various stakeholders for use in African countries. Nigeria, with IITA, is the first African country to have the biocontrol product, aflasafe, registered. Several other African countries are in the process of registering their own biocontrol products.

Aflasafe KE01 contains four local strains of *Aspergillus flavus* fungus incapable of producing the toxin. Aflasafe KE01 is a well-tested product that reduces aflatoxins up to 98 percent in farmer's fields in aflatoxin prone areas of Kenya. This product was jointly developed by KALRO, IITA and USDA-ARS with the support from the African Agriculture Technology Foundation (AATF), (ACDI-VOCA, and the Ministry of Agriculture of Kenya. The registration will allow Kenyan farmers to have access to aflasafe KE01 relatively easily. This is expected to have good results on the production of maize in the country.

## PACA features during the Third International Conference on Financing for Development, from 13-16 July, 2015 in Addis Ababa, Ethiopia

The Third International Conference on Financing for Development was held on 13-16 July 2015 in Addis Ababa, Ethiopia. This high level conference gathered representatives, including Heads of State and Government, Ministers of Finance, Foreign Affairs and Development Cooperation, as well as relevant institutional stakeholders, non-governmental organizations and business sector entities. The conference deliberated on many of the developmental challenges facing the world and the financing mechanisms that could be used to address these challenges. The conference was complemented with over 180 side events which covered diverse topics from issues related to domestic resource mobilization, private business and finance, women and children to climate and environment finance, agriculture, food and water, infrastructure, health, and international



development cooperation. PACA in partnership with Mars, Incorporated convened a side event on “Uncommon Partnerships Address Aflatoxins: an Urgent Worldwide Food Safety Challenge”. In line with the multi-sectoral, multi-disciplinary approach needed to control food safety and aflatoxin challenges, the side event highlighted the tremendous potential to address the challenge through various unconventional partnerships. The panelists described the food safe-

ty challenge and its threat to food security as well as aflatoxins’ negative impact on nutrition and women and children’s health. The panelists also discussed the various opportunities that exist to prevent and control aflatoxins. The side event explored the idea of creating uncommon partnerships to address food safety issues on the continent.

## **Farmers ask the Forum for Agricultural Research for Africa to help in the establishment of an Innovation Platform for Aflatoxin Management in Ghana**

The Forum for Agricultural Research for Africa (FARA) convened a consultative stakeholder workshop on forming an innovation platform for aflatoxin management in Ghana. The meeting was held at the FARA secretariat on 17 June 2015 in Accra, Ghana. To complement the continental effort on mitigating the aflatoxin problem in Africa led by the African Union Commission through PACA, Ghanaian agricultural sector stakeholders led by Farmers Organization Network of Ghana (FONG) approached the Forum for Agricultural Research in Africa (FARA) in Accra, Ghana to

assist in initiating collaborative action to help raise awareness on aflatoxins in Ghana, put in place management measures and most importantly help local farmers address the problem of aflatoxin. The meeting aimed at raising awareness among the stakeholders, discussions on mitigation strategies as well as forming a national platform for aflatoxin management and control in Ghana. An innovation platform (IP), according to Dr. Fatunbi of FARA, is a physical or virtual forum established to facilitate interactions, and learning among stakeholders selected from a commodity chain leading to participatory

of problems; joint exploration of opportunities and investigation of solutions leading to the promotion of agricultural innovation along the targeted commodity chain. The IP approach emphasizes stakeholder engagement and involvement. The platform enables diagnosis of problems, identification of solutions and implementation of solutions for the benefit of all stakeholders. The Innovative Platform for aflatoxin management in Ghana is expected to be launched soon and an action plan developed. PACA participated in the initial consultations.

## **PACA hosted a workshop on sorghum mycotoxins co-organized by FAO/WHO and AUC-PACA**

Nearly 300 million people in Africa depend on sorghum as their dietary staple. On 18 – 19 June 2015, PACA hosted a regional workshop on mycotoxins in sorghum at the African Union Commission in Addis Ababa, Ethiopia. The workshop

was convened by FAO and WHO, in partnership with PACA and marked the completion of a regional FAO/WHO project on mycotoxins in sorghum. The project, resulting from discussions in the Codex Committee on Contaminants in Foods (CCCC) on the po-

tential need for a Maximum Level on mycotoxins in sorghum, has been funded by the European Commission through the FAO/WHO Project and Fund for Enhanced Participation in Codex (Codex Trust Fund).



## PACA hosted a workshop on sorghum mycotoxins co-organized by FAO/WHO and AUC-PACA– continued

According to a widespread tenet among mycotoxicologists, sorghum, an indigenous crop in many parts of Africa, has been considered as a candidate for diet diversification to mitigate consumer exposure to aflatoxins due to heavy reliance on maize. However, reports from different parts of the world show contamination of sorghum by aflatoxin and other mycotoxins. The FAO/WHO study was undertaken in Burkina Faso, Ethiopia, Mali and Sudan. The well-conceived project involved extensive sampling in three rounds of surveys in each of the countries. A total of 1,532 samples were tested for 23 mycotoxins using a multi-analyte LC–MS/MS method. PACA Secretariat partnered with FAO and WHO in hosting the workshop to review results of the sorghum project, share experiences, and agree on common findings and chart way for-

ward on any specific follow up and actions at national, regional, global level.

Overall, 17 different mycotoxins including aflatoxins were detected in varying number of samples. The workshop identified concrete next steps in the areas of further research, regulation and standards, capacity building as well as awareness-raising. PACA, FAO and WHO explored further synergies. The participating countries Mali, Burkina Faso and Ethiopia committed to establish National Mycotoxin Steering Committees (NMSC) as a means of multi-sectoral coordination for effective mycotoxin control as well as linkage for collaboration with PACA and other partners. It is noteworthy that Sudan has taken the proactive step and set up a



NMSC through a ministerial decree. Such NMSCs will enable PACA Secretariat to work with non-Pilot Countries in the continent. It is to be recalled that PACA has identified Gambia, Malawi, Nigeria, Senegal, Tanzania and Uganda as pilot countries. The consultative and transparent process of pilot country selection was concluded in 2014. PACA intends to work closely with pilot countries, document experience from pilot country engagement and scale up to additional countries in Africa.

## CTA addresses Food and Nutrition Security in Africa

The Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA) in collaboration with NEPAD recently (21-25 September, 2015) convened over 30 participants in a cross-learning workshop and writeshop in Dakar, Senegal. The outcomes and lessons from several CTA commissioned university pilot studies on Food and Nutrition Security (FNS) targeted at building an evidence base to inform future policy and practice for improving FNS outcomes were shared with participants. PACA, in a presentation on “Strategic priorities for an aflatoxin free Africa”, highlighted the topical issue of aflatoxin contamination of food and feed Africa, and

need to consider aflatoxin control interventions as priority in national Ag-Nutrition and Health agenda and work programmes.

In addition, findings of a “Systematic Review of Aflatoxin Contamination in Major food Commodities in Africa” commissioned by CTA in collaboration with PACA were presented. Data from this review will be meta-analyzed with other aflatoxin data obtained through PACA activities and fed into the Africa Aflatoxin Information Management System database for easy access to a broader range of stakeholders on the continent. Other key issues addressed by workshop participants for improving FNS at country levels

included: national ownership of data generated; in-country capacity building, leadership and good governance to enhance the national Ag-Nutrition frameworks; gender related issues affecting FNS; and public-private partnerships. The roles of universities in driving and sustaining momentum for improving outcomes in FNS for national and continental growth were X-rayed. Participating CTA-engaged universities drafted outlines of priority projects addressing FNS challenges in their countries and aflatoxin control was outlined as an activity. CTA and PACA are working cohesively for continuous partnerships.

## The Africa Health Forum on Aflatoxins: Upcoming Workshop

Aflatoxins are major contributors to pre-and post- harvest losses in crops therefore creating a threat to food security in Africa. The bottom line is that aflatoxins are known car-

cinogens that cause liver cancer in humans and affect animals. Aflatoxins are also associated with childhood stunting and immunosuppression. Aflatoxins impact on humans and animals is

rarely documented and researched. Awareness creation on aflatoxins has mainly focused on crops and agriculture in general. The awareness level on aflatoxins and degree of

engagement with the medical, health and Nutrition professions is relatively low. PACA in collaboration with Amref Health Africa and other stakeholders is organizing a workshop on aflatoxins and health

titled “Africa Health Forum on Aflatoxins” in Nairobi, Kenya (dates to be confirmed). The forum aims at drawing the focus of the health sector to the aflatoxin issue. The forum will also try to create synergy between the

affected sectors of Agriculture, trade and health and develop a strategy for joint actions at the country, regional and continental level.

## Food safety and quality enforcement to be ensured in fortified foods in East, Central, and Southern Africa

On 7-8 September 2015 the United States Agency for International Development (USAID), the Global Alliance for Improved Nutrition (GAIN), and the East Central and Southern Africa Health Community (ECSA) convened a regional workshop for Human Capacity Building to Monitor Nutritious and Fortified Foods in the ECSA region, in Arusha, Tanzania.

Cognizant that most fortified and complementary foods such as groundnuts, sorghum, rice and maize are highly susceptible to aflatoxins, also recognising the devastating effects that aflatoxins have on health, it was deemed important to address aflatoxin mitigation at this workshop. Therefore, PACA and IITA were invited to pre-

sent on the impact of aflatoxins on human health and the need for coordinated approaches for mitigating the problem.



By addressing aflatoxins, the workshop aimed at strengthening the collaboration and coordination among countries and development partners in the areas of food safety and quality control, enforcement and inspection, and consumption monitoring of fortified foods and other fortified processed foods. The outcomes of the regional workshop fed into the First Global Summit on Food Fortification held on 9-11 September 2015.

Following the workshop, PACA in collaboration with IITA, USAID, the New Partnership for African Development (NEPAD) and The African Medical and Research Foundation (AMREF) are exploring means of co-convening a regional workshop on engaging the health sector in aflatoxin prevention and control in Africa which will be held in the first quarter of 2016.

## PACA supports the 10th Annual Conference and Workshop of the Mycotoxicology Society of Nigeria (MSN)

The Partnership for Aflatoxin Control in Africa (PACA) supported the 10th Annual Conference and Workshop of the Mycotoxicology Society of Nigeria (MSN) held at the International Institute of Tropical Agriculture (IITA) Conference Centre, IITA, Ibadan, on July 13–15, 2015.

MSN is a non-Governmental, non-political and non-profit-making scientific body founded in 2006 with the primary aim of exchanging scientific information related to dan-

gers of mycotoxins on humans, animals and the economy, and promoting awareness among the diverse stakeholders on mycotoxin control in food and animal feeds. Since 2006, the Society organized 10 Annual Conferences and several awareness programs including stakeholder workshops in different parts of the country, discussing evidence-based facts that address the burden of mycotoxin contamination in Nigeria in an attempt to improve the living condition of

mankind through minimizing mycotoxin risks in the country.

The 10th Conference brought together stakeholders from

Universities, Research institutes, Federal ministries and agencies, government regulatory bodies and the private sector including farmer organizations and service providers.

MSN is the first professional society on mycotoxins in Africa and PACA Secretariat appreciates MSN for their efforts towards mycotoxin/aflatoxin research in Nigeria and calls upon the Society to partner with the country government and other stakeholders towards the common goal of minimizing aflatoxin risks on the continent taking cognizant of the fact that Nigeria has just been enlisted as sixth PACA Pilot Country.



**"AFRICA FREE FROM THE HAMRFUL  
EFFECTS OF AFLATOXINS"**

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