Overview of the Aflatoxin Challenge in Africa and PACA’s Holistic Approach

Regional Workshop, 18-20 Nov. 2013
Accra, Ghana

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What are aflatoxins?

- Fungal metabolites (naturally occurring)
- Produced by strains of *Aspergillus flavus* and related species
- Highly stable compounds, withstand normal food/feed processing procedures

[www.ipm.iastate.edu](http://www.ipm.iastate.edu)
Aflatoxin contamination

- Could occur preharvest, harvest, handling and storage
- Maize, groundnut, cottonseed and byproducts are highly susceptible but occurs in diverse food and feed produce
- Aflatoxins could be carried over through milk, meat and egg of animals fed on contaminated feed
The Aflatoxin Challenge
Effects of aflatoxins on health

- Fatal at high concentrations; e.g. outbreaks in East Africa where hundreds of persons died due to aflatoxin poisoning (Probst et al., 2007)
- Cause liver cancer (WHO, 1988; 2002)
- Linked to:
  - Stunted growth and being underweight in children
  - Suppression of human immune system
- 4.5 billion people chronically exposed (WHO, 2004)
Aflatoxin impacts on trade

- Because of serious health hazards, importing countries regulate aflatoxins.
- Regulations directly impact regional and international trade.
- Lost trade affects economies such as traditional groundnut exporting countries of Africa, and income and livelihood of farmers.
- Undermines efforts to streamline SPS issues continent-wide.
Aflatoxin impacts on agriculture and food security

- When contaminated food is condemned unsafe for food, the supply is impacted (e.g. recently in east Africa, large quantities of maize was taken out of the food chain).
- Contaminated food is likely to be consumed by smallholder farmers and their families affecting food safety (food security).
- 25% of the world food supply is contaminated with aflatoxins (FAO, 2000)
Aflatoxins affect each of these elements
Food and Nutrition Security

Availability

Access

Safety
Food & Nutrition Security

Availability

Access

Safety
When components of F&NS are at optimum stability is at its best.
When aflatoxins affect components of F&NS, “stability” is impacted
Factors in the Aflatoxin Challenge in Africa:

- Conducive climatic conditions
- Traditional crop production practices
- Inadequate harvesting, drying and storage practices
- Policy and institutional capacity
- Lack of awareness
Aflatoxin contamination is a perennial risk between 40° N and 40° S of the equator, but is a global problem due to int. trade.
Aflatoxin control

- Aflatoxin contamination is a complex problem:
  - Hard to solve by a single actor/discipline
  - Requires multi-stakeholder actions
  - Need to focus on the cause rather than the symptoms
  - No single answer

- Integrated and coordinated actions needed
A ‘bag of tricks’ (integrated valid options) to address the complex aflatoxin problem:

- Technology solutions
- Regulation
- Policy and institutions

Photo credit: africabags.org
What is PACA?

- Innovative consortium aiming at coordinating aflatoxin mitigation and management across health, agriculture and trade sectors in Africa.
- Africa-based, Africa-led effort
- Aims to adapt proven solutions, and identify new ones, that will work for African situation.
## PACA Genesis

<table>
<thead>
<tr>
<th>Date and Location</th>
<th>Event</th>
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<tr>
<td>23 March 2011, Yaoundé, Cameroon</td>
<td>CAADP PP, asked AUC to explore establishment of PACA</td>
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<td>3-4 October 2011, Nairobi, Kenya</td>
<td>PACA organizational planning meeting under the auspices of AUC</td>
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<td>1-2 March 2012, Maputo</td>
<td>PACA Interim Steering Committee meeting</td>
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<td>25-27 June 2012, Ibadan</td>
<td>PACA Interim Steering Committee meeting</td>
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<td>31 October 2012, Addis Ababa</td>
<td>PACA officially launched at AUC</td>
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<td>01 Nov. 2012, Addis Ababa</td>
<td>Steering Committee inauguration</td>
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<td>April 2013, Dar es Salam</td>
<td>PACA Strategy consultation workshop</td>
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<td>Since May/June 2013</td>
<td>PACA has developed frameworks and started sustained actions</td>
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AFLATOXINS: FINDING SOLUTIONS FOR IMPROVED FOOD SAFETY
Mobilizing Political Support: Partnership for Aflatoxin Control in Africa
AMARE AYALEW, WEZI CHUNGA, AND WINTA SINTAYEHU

Focus 20 • Brief 15 • November 2013

PACA
Partnership for Aflatoxin Control in Africa
Africa free from the harmful effects of aflatoxins
Partnership for Aflatoxin Control in Africa Organogram

- **Technical**
  - 1 REC, 2 Tech Agency, 1 Health, 1 Research (support by Secretariat)

- **Budget, Finance & Administration**
  - 1 AUC, 1 REC, 1 Dev Partner, 1 Farmer Org, 1 CSO (support by Secretariat)

- **African Union Commission**

- **PACA Steering Committee**
  - 1 AUC, 2 RECs, 2 Technical Agencies, 1 Farmer Organization, 1 Civil Society, 1 Private Sector, 1 African Health, 1 African Research, 1 Development Partner, 1 PACA Secretariat

- **PACA Secretariat**
  - Program Manager, Technical Advisor, Program Officers, Administrative Support, Consultants

- **PACA Platform**
  - Broad engagement of diverse stakeholders involved in aflatoxin control in Africa
PACA’s engagement approaches

- PACA aims at mainstreaming aflatoxin control in existing mechanisms:
  - the CAADP framework
  - Health and nutrition frameworks
- RECs, Member States, Technical Organizations, Private Sector and CSGs and take lead in implementation of PACA’s Strategic Plan
- PACA’s partner engagement guideline is under review by stakeholders
PACA’s theory of change

Activities/Inputs:
- Coordination and information sharing
- Developing, testing and scaling up control activities
- Streamlining of funding and mobilization of financial support
- Awareness and capacity building activities

Necessary Preconditions:
- New and existing technologies available and utilized
- Policies, regulations and standards for aflatoxin prevention and control developed and enforced
- Domestic and international trade incentivizes aflatoxin control
- Sufficient capacity to inform decision making and implement management best practices
- The public and policy makers are aware of the impacts and solutions

Desired Change:
An Africa free from the impacts of aflatoxin
The PACA Strategy
2013 - 2022
Strategy Development Process

- Key actors involved: AUC, experts, donors, CSGs, etc.
- Strategy development consultation workshop held in April 2013
- Drafting by consulting firm – PICO
- Comment and thorough review and refinement, technical accuracy by Secretariat
- Review by Strategy Workshop participants
- Incorporation of comments
- Steering Committee endorsement
Strategy document

- Executive Summary
- Introduction
- Background and context
- Challenges and Opportunities
- Vision, Mission of PACA
- Guiding principles and role of PCA
- Strategic thematic areas
- “Making it happen” section
Strategic Thematic Areas of Work

1. Research and technology for prevention and control of aflatoxins
2. Policies, legislation and standards for the management of aflatoxins
3. Growing commerce and trade and protecting human health from aflatoxins
4. Enhancing capacity for effective aflatoxin prevention and control
5. Public awareness, advocacy and communication
Conclusion

- Aflatoxins are insidious poisons that affect public health, trade and food security
- Aflatoxin contamination is a complex problem that can be addressed through integrated measures and coordinated actions
- The competitiveness of the African agriculture is seriously undermined unless the aflatoxin problem is addressed proactively
- Member States, RECs and AUC are prioritizing aflatoxins in their agenda, but more needs to be done in terms of institutionalizing aflatoxin control
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