Editorial

The Mycotoxicology Society of Nigeria (MYCOTOXSON) remains committed to creating awareness in promoting best practices for mycotoxin control and regulations. Mycotoxin occurrence is a cross-cutting issue that is undermining public health and development efforts. Mycotoxins are toxic, cancer causing fungi metabolite known to cause immune system suppression, growth retardation, liver disease and death in both human and domestic animals. Most of the visibly damaged and contaminated grains are usually dumped in feedmill for ration formulation for farm animals which will eventually get to humans through the consumption of animal products either in form of meat, eggs or milk. Possible strategies have been employed to mitigate mycotoxicosis in humans and animals either physically, chemically using toxin binder or biologically using yeast and atoxigenic strains such as Aflasafe developed by IITA or by developing resistance varieties. Prevention and control of these mycotoxins will reduce or eliminate the reported annual trade losses globally of up to 1 billion dollars and in Africa up to 450 million dollars through aflatoxin contamination in crops alone. Nigeria has experienced high recorded aflatoxin exposure levels in humans and has also reported the highest estimated number of cases of hepatocellular carcinoma (HCC-liver cancer) attributable to aflatoxins. I hereby urge our scientists, researchers and specialists in this area to beef up effort in the prevention and control mechanisms of mycotoxins and their hazards from our environ.

AFLATOXINS IN NIGERIAN FOODS: AN UPDATE – PROF. S.O. FAPOHUNDA
37th International Conference of the Nigerian Institute of Food Science and Technology, Abuja on
The Health Impact of Mycotoxins on Humans

Dvorachova et al (1972), Slovakia, reported finding aflatoxin B. in liver specimens of two infants, who died with liver damage and encephalopathy

- Rosenberg (1972), Germany, a, 45-year-old man had eaten mouldy nuts and developed yellow atrophy of the liver, later died.
- In October 1974, some Indians ate contaminated grains, had liver injury (Krishnamachari, et al, 1975). One hundred and six of 397 patients died.
- Reye’s syndrome and aflatoxin exposure. Chaves-Carballo et al., (1976)
- 4.5 billion people in developing countries chronically exposed (WHO, 2004).
- Posthumous autopsy of children suffering from kwashiorkor revealed a significant level of aflatoxin in their brains, --due to consumption of contaminated maize-based gruel fed infants in Nigeria (Oyelami et al 1996).
- Child stunting, child mortality, immune suppression and child neurological impairment.
- The IARC, 1987 officially placed aflatoxin B1 as a Group 1 carcinogen (definitely carcinogenic to humans). Additional data analysed in 2002 further confirmed the categorisation (Schmidt 2012)
- Globocan 2008, the IARC, liver cancer in sub-Saharan Africa accounted for 43,345 deaths, which is about 10.3% of the total mortality attributable to cancer. Not a few of this may be traceable to aflatoxin consumption
- DALY=(Disability Adjusted Life Years) burden of aflatoxin-induced disease high among poor people.

Economic Impact on Humans

- DALY=YLL (Years lost while living with aflatoxin)+ YLD (years lost due to premature death). Formula designed by Harvard for World bank in 1990, adopted by WHO 1996). An epidemiological term
- VSL=Value of Statistical Life (An estimated attempt to put monetary value to human life)
- North East and North Central are flashpoints according to CAR
- For livestock, there is reduced sale arising from compromised weight and productivity, reduced feed intake, nervousness, abortions, kidney and liver damage, high mortality and increased carcass condemnation
- Reduced export value to producers from the developing countries. The UN in 1999, likened the consumption of aflatoxin-contaminated food to malnutrition which in itself is an index of poverty
- A, 2005 World Bank study revealed that the European Union regulations on aflatoxins cost Africa 750 million dollars each year in export of cereals, dried fruits and nuts through reduced export value, rejects and trade bans.
- EU has put in place the “RASFF” and harsh measures to punish repeat offenders
- Melon (59), ogbono (13), and durum beans (9), collectively accounted for 81 of 102 EU trade alerts issued on Nigerian crop exports over the previous 5 years (EU, 2012)

NEWS ABOUT MEMBERS

Prof. Olusegun Atanda
1. Dr. O.O. Atanda was appointed the “first indigenous Professor” of McPherson University, Seriki-Sotayo, Ogun State with effect from Oct, 2012. Professor Atanda, a Professor of Food Microbiology and Food Safety in the Department of Biological Sciences was also appointed the Dean of the College and the Ag. Director of Academic Planning of the University in addition to been elected as a Senate representative to the Council of the University.

3. Attended the regional workshop on the “Aflatoxin Challenge in West African States” from 18th-20th November, 2013, Accra, Ghana. The workshop was put together by the Economic Community of West African States (ECOWAS), in collaboration with the African Union Commission through the Partnership for Aflatoxin Control in Africa (PACA), the Forum for Agriculture Research in Africa (FARA), the International Institute of Tropical Agriculture (IITA), and the West and Central African Council for Agricultural Research and Development (WECAD/CORAF).


5. Bagged the President's fund grant to co-fund his attendance at the 8th conference of the World Mycotoxin Forum. 10th – 12th November, 2014, Vienna, Austria.

Mrs Tayo Imafidon
Appointed head of Mycotoxin Laboratory, NAFDAC, Oshodi. Jan, 2014

Mrs Folasade Oluwabamiwo


Dr. (Mrs) Y.A. Jeff-Agboola

Selected as one of the twenty-eight outstanding scientists to benefit from the 2014 Advanced Science Training world-wide for Post-Doctoral Fellowship @ The Animal Science Center, University of Missouri, Columbia, USA. The winners were chosen from among 52 proposals submitted by 2013 AWARD Fellows for Post-Master and Post-Doctoral degrees.

Cynthia Adaku Chilaka

2. Secured a doctoral grant for a split doctoral programme between Ghents University, Belgium and candidates from developing countries on a project “Fusarium Mycotoxins and their Masked forms in Nigerian foods: Occurrence and Influence of Traditional Processing Methods”

Mrs Modupeade C. Adetunji

Secured a travelling grant to attend the 24th International Committee on Food Microbiology and Hygiene (ICFMH) conference, “FOOD MICRO, 2014”. Nantes, France 1-4th Sept, 2014.

Dr. C. N. Ezekiel

1. Presented a poster and chaired a session at the 5th International Toxicology Symposium in Africa organized/sponsored by the Japanese Society for the Promotion of Science in collaboration with Hokkaido University Graduate School of Veterinary Medicine, Sapporo, Japan, and Kwameh Nkruma University of Science and Technology (KNUST). College of Science, KNUST, Kumasi, Ghana. September 12-13, 2013.
3. Offered a CGIAR Consultancy (July 20 – August 17, 2014) to train staff at the new mycotoxin facility at IITA-Kenya & Kenya Agriculture Research Institute (KARI) on Microbiological and Mycotoxin Processes/Techniques related to Aflatoxin Control in Africa.
5. Invited to present a paper titled “Assessing the Human Mycotoxin Exposure in Cameroon and Nigeria through an LC-MS/MS based Multiple Biomarker Approach” during session 1: Tackling Human and Animal Health Risks; Sub-Theme: Recent Exposure Assessment Studies; at the 8th conference of the World Mycotoxin Forum, Vienna, Austria, November, 2014.

Dr. Oyebanji

Prof. Hussaini Makun

1. Promoted Professor of Biochemistry with effect from October 2013. Federal University of Technology, Minna, Niger State.

2. Attended a training workshop on Methods of Determination of Mycotoxins at the International Food Safety Training Laboratory, Joint Institute for Food Safety and Applied Nutrition, University of Maryland, USA. December 4-13, 2013.

CONDOLENCES

CONDOLENCES MESSAGE IN RESPECT OF MISS FOLAKE FASHINA

I write to express my condolences and that of our Association in respect of the above named member of our Association, who went to be with the Lord on 19th Nov, 2013.

She was a sincere, urbane an active member of the Association. We also commiserate with your Organisation (NAFDAC, Oshodi, Lagos) and her colleagues on this tragic loss at the prime of her youth.

We pray that the good Lord will comfort the family, friends and well-wishers and give her soul eternal rest. Prof. Atanda, President MYCOTOXSON 8/12/13

Useful Links (for Mycotoxin Information, Research and Funding)

2. [http://www.aflatoxinpartnership.org](http://www.aflatoxinpartnership.org)
3. [www.alltechfeigames.com](http://www.alltechfeigames.com)
4. [http://www.knowmycotoxins.com](http://www.knowmycotoxins.com)
7. [http://ag.arizona.edu/research/cottylab/CottyLabHome.htm](http://ag.arizona.edu/research/cottylab/CottyLabHome.htm)
11. [http://www.youtube.com/mycotoxinchannel#play/all/uploads-all/0/DSO9R7H9Qfo](http://www.youtube.com/mycotoxinchannel#play/all/uploads-all/0/DSO9R7H9Qfo)

Upcoming Events

- 9th World Mycotoxin Forum and XIV IUPAC International Symposium on Mycotoxins and Phycotoxins: **6-9 June 2016**
- Mycotoxins & Phycotoxins at Stonehill College Easton, MA: **June 14-19, 2015**
- 10th International Mycotoxin Congress, Bangkok, Thailand: **3-8 August 2014**

Some International Organisations dealing with Mycotoxins

- [Joint Expert Committee on Food Additives (JECFA)](http://JointExpertCommittee.onFoodAdditives/JECFA)
- [Codex Alimentarius Commission](http://CodexAlimentariusCommission)
- [European Food Safety Authority (EFSA)](http://EuropeanFoodSafetyAuthority)
Mycotoxson Funding Support
We need your support, suggestions and contributions to achieve MYCOTOXSON projects in the following areas:
1. Data for construction of a national Mycotoxin Map
2. Funding for massive national Mycotoxin Awareness Campaigns
3. Funding for building a Mycotoxin Research Laboratory with cutting-edge facilities

ADO EKITI 2013 MYCOTOXSON CONFERENCE AT A GLANCE

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