



3rd ASM joint MYTOX-SOUTH 2022 CONFERENCE:

PRELIMINARY SCIENTIFIC PROGRAM

4 – 7 September 2022

SUNDAY, 4TH OF SEPTEMBER 2022

17H00 – Registration opens and Welcome Cocktail function at the STIAS Conference Centre

MONDAY 5TH SEPTEMBER 2022

07H30 – Registration opens

PLENARY SESSION: INTRA- AND INTERCONTINENTAL PARTNERSHIPS TOWARDS MITIGATING MYCOTOXINS IN AFRICAN FOOD AND FEED VALUE CHAINS

09H00 – 09H10 **Welcome:** Prof Sheila Okoth (President of the African Society for Mycotoxicology)

09H10 – 09H30 Prof Pieter Gouws (Centre for Food Safety, Stellenbosch University; South Africa)

09H30 – 10H15 **Plenary talk:** Scaling-up global health innovations for improved food safety in Africa (Prof Obidimma Ezezika; Western University London, Canada)

10H15 – 10h45 **Keynote:** Grain value chain in SA: challenges/lessons and potential impact for Africa (Mr Corné Louw; Applied Economics & Member Services Lead; GrainSA)

10H45 – 11H15 TEA

11H15 – 11h45 **Keynote:** Mycotoxins: Africa's most pervasive and invisible food safety challenge and role of evidence and partnerships in their mitigation (Dr Amare Ayelew - Programme manager of the Partnership for Aflatoxin Control in Africa; PACA - AU)

11H45 – 12H15 **Keynote:** Intra- and intercontinental partnerships towards mitigating mycotoxins in African food and feed value chains: The Africa Centre of Excellence for Mycotoxin and Food Safety Experience (Prof Hussaini Makun; Coordinator of the African Centre of Excellence for Mycotoxin and Food Safety; ACEMFS)

12H15 – 12H45 **Keynote:** The power of global networks for capacity building in mycotoxin research (Prof Sarah De Saeger - MYTOX-SOUTH® Coordinator; President of the International Society for Mycotoxicology (ISM))

12H45 - 12H55 A brief history of the African Society of Mycotoxicology (Prof Altus Viljoen, 1st ASM President; Stellenbosch University)

12H55 – 13H10 Platinum sponsor presentation: Trilogy

13H00 – 14H00 LUNCH

PARALLEL 1

THEME 2: SURVEILLANCE, MITIGATION AND PREDICTING MYCOTOXIN PREVALENCE

Session chair:	<i>Prof Oluwafemi Adebo and Ayesha Shaikh</i>
14H00 – 14H25	Keynote: Surveillance, mitigation and predicting mycotoxin prevalence (Prof Patrick Njobeh; University of Johannesburg; South Africa)
14H25 – 14H40	Human exposure assessment to fumonisin B1 and B2 in Hungarian population (Melinda Kovács; Hungarian University of Agriculture and Life Sciences, Hungary)
14H40 – 14H55	Aflatoxin contamination of cow milk and bran from the Tanga Region of Tanzania (Joseph Yamdeu; Canterbury Christ Church University; England)
14H55 – 15H10	Essential descriptors for mycotoxin contamination data in food and feed (Addisalem Mesfin; Ghent University; Belgium)
15H10 – 15H25	Survey of multiple mycotoxins in South African raw materials and complete feeds (2015-2022) (Marlien de Kock; Trouw nutrition)
15H25 – 16H00	TEA
16H00 – 16H15	Pre-harvest mycotoxin contamination of maize in Malawi (Theresa Ngoma; Lilongwe University of Agriculture and Natural Resources; Malawi)
16H15 – 16H30	Binding efficacy evaluation of a broad spectrum binder on emerging mycotoxins (Jolien van Soest; Orffa Additives BV)
16H30 – 16H45	Effective DON sequestration of novel clay-based mycotoxin binders (Steyn Knoetze, KEMIN)
16H45 – 17H00	Q&A Session for all presenters
17h00 – 18h00	POSTER SESSION

PARALLEL 2

THEME 3: HEALTH IMPACT OF MULTI-MYCOTOXINS AND MASKED/HIDDEN MYCOTOXINS

Session chair:	<i>Dr Limbikani Matumba and Cebile Jobe</i>
14H00 – 14H25	Keynote: Complications in mycotoxins biomarker measures in interventions studies (Prof. Paul Turner; Maryland Institute for Applied and Environmental Health; USA)
14H25 – 14H40	Harvest and post-harvest handling associated with fumonisin B1 contamination in maize: Assessment of the exposure risk in eastern Ethiopia (Abdi Hassen; College of Agriculture and Environmental Sciences, Haramaya University; Ethiopia)
14H40 – 14H55	Biomonitoring and multi-mycotoxin exposure assessment of mother-infant dyads in Nigeria (Cynthia Chilaka; Institute of Pharmacology and Toxicology, Julius Maximilian University; Germany)



14H55 – 15H10	Melatonin possesses significant effects on aflatoxicosis-induced hepatotoxicity and cardiotoxicity in male Sprague Dawley rats (Denis Obino; Faculty of Health Sciences, University of Nairobi; Kenya)
15H10 – 15H25	Effect of aflatoxins dose on hematological, biochemical and physiological features of male mice (Stephen Akinola; Faculty of Natural and Agricultural Sciences, North West University, South Africa)
15H25 – 16H00	TEA
16H00 – 16H15	Association of bovine breed and aflatoxin carryover from aflatoxin B1-naturally contaminated feed into aflatoxin M1 in milk and urine of dairy cows (Nancy Nleya; North-West University; South Africa)
16H15 – 16H30	Chronic aflatoxin exposure during pregnancy is associated with lower fetal growth trajectories: a prospective cohort from the BUNMAP study in rural Ethiopia (Kokeb Tesfamariam; College of Medicine and Health Sciences, Ambo University; Ethiopia)
16H30 – 16H45	Staging sponsor presentation: Trouw Nutrition
16h45 – 17h00	Q&A Session for all presenters
17h00 – 18h00	POSTER SESSION



TUESDAY 6TH SEPTEMBER 2022

PARALLEL 3

THEME 4: MANAGING MYCOTOXIGENIC FUNGI AND MYCOTOXINS

Session chair: *Dr Belinda Janse van Rensburg and Denis Obino*

09H00 – 09H30	Keynote: APTECA: A quality systems approach to manage mycotoxigenic fungi and mycotoxin risk (Prof Timothy Herrman; Texas A&M University)
09H30 – 09H45	Five keys to prevention and control of mycotoxins in grains: A proposal (Limbikani Matumba; Lilongwe University of Agriculture and Natural Resources; Malawi)
09H45 – 10h00	At the scene of the crime: New insights into the role of weakly pathogenic members of the fusarium head blight (FHB) disease complex during infection and biocontrol (Kris Audenaert; Ghent University; Belgium)
10H00 – 10H15	Developing a disease screening pipeline for resistance to Fusarium head blight of wheat (Gert van Coller, Western Cape Department of Agriculture; South Africa)
10H15 – 10H30	Optimisation of storage parameters for aflatoxin production in <i>Aspergillus parasiticus</i> inoculated wheat flour using response surface methodology (Stephen Akinola; Department of Microbiology, North West University; South Africa)
10H30 – 11H00	TEA
11H00 – 11h15	The maize mycobiome and mycotoxin contamination in relation to climatic patterns (Bwalya Katati; Wageningen University and Research and National Institute for Scientific and Industrial Research; Zambia)
11H15 – 11H30	Biocontrol of Fusarium species utilising indigenous rooibos and honeybush aqueous extracts (Beauty Omoruyi; Applied Microbial and Health Biotechnology Institute, Cape Peninsula University of Technology; South Africa)
11H30 – 11H45	Control of aflatoxins in stored maize using activated charcoal and neem leaf (<i>Azadiracta indica</i>) (Oni Eniola; Federal University of Agriculture, Abeokuta, Nigeria Federal University of Agriculture; Nigeria)
11H45 – 12H00	Implementation of the Net-Map analysis tool to unravel the Science-Policy-Society collaboration system in mycotoxin risk analysis in Africa (Celine Meerpoel; University of Ghent; Belgium)
12H00 – 12H15	Influence of storage practices on mycobiota diversity and mycotoxin production in livestock feeds collected from emerging farmers and commercial feed suppliers (Kgomotso Setsetse; North West University; South Africa)
12H15 – 12H30	Q&A session for all the presenters
12H30 – 12H45	Gold sponsor presentation: Two new approaches to mycotoxin control programs: Simultaneous rapid detection of several



mycotoxins in one extract and a single calibration aflatoxin strip test for complete feeds (Willem Joubert - Microsep - Waters Chemistry Manager)

13H00 – 14H00

LUNCH

PARALLEL 4

THEME 2: SURVEILLANCE, MITIGATION AND PREDICTING MYCOTOXIN PREVALENCE

Session chair:

Dr Samuel Njoroge and Jenna-Lee Price

09H00 – 09H15

The impact of conservation agriculture on peanut aflatoxin level and exposure risk in Zambia (Juliet Akello; International Institute of Tropical Agriculture; Zambia)

09H15 – 09H30

Incidence of multiple mycotoxins in maize grown under conservation agriculture practices on commercial production fields in South Africa (Belinda Janse van Rensburg; Agricultural Research Council Grain Crop, Potchefstroom; South Africa)

09H30 – 09H45

Effect of selected agricultural practices on aflatoxin and fumonisin levels in maize grain among farmers in northern Uganda (Godfrey Wokorach; Department of Plants and Crops, Ghent University; Belgium)

09H45 – 10h00

Multiple mycotoxins co-occurrence in groundnut and groundnut cakes in selected area in south west, Nigeria (Agnes Ogunyemi; Federal University of Agriculture; Nigeria)

10H00 – 10H30

Q&A session for all the presenters

10H30 – 11H00

TEA

11H00 – 11h15

Diversity and toxigenic potential of fungi isolated from edible insects and their complementary food formulations (Maryam Imbumi; Ghent University; Belgium)

11H15 – 11H30

Exploring fungal diversity and their mycotoxins from stored maize in South Africa (Neriman Yilmaz; University of Pretoria; South Africa)

11H30 – 11H45

Identification and characterization of black *Aspergillus* fungi isolated from maize in aflatoxigenic hot zones in Kenya (Olga Mashedi; Kenya Medical Research Institute, Nairobi; Kenya)

11H45 – 12H00

The first extensive biomarker survey in African farms (Arnau Vidal; Innovad Global)

12H00 – 12H30

Q&A session for all the presenters

12H30 – 12H45

Gold sponsor presentation: ProGnosis Biotech

13H00 – 14H00

LUNCH



PARALLEL 5

THEME 5: FOOD AND FEED PROCESSING AND TECHNOLOGIES TO REDUCE MYCOTOXIN CONTAMINATION

Session chair:	<i>Prof James Gathumbi and Tereza Ngoma</i>
14H00 – 14H25	Keynote: The impact of mycotoxins on animal husbandry (Dr Suquan Song; Nanjing Agricultural University; China)
14H25 – 14H40	Reduction of aflatoxin B1 excretion in milk of dairy cows by use of specific feed additive (Damian Preveraud; Adisseo)
14H40 – 14H55	Effects of mycotoxin mitigation trial on aflatoxin contamination in Kongwa District Tanzania (Rosemary Kayanda; Science and Technology (NM- AIST), Arusha; Tanzania)
14H55 – 15H10	Mitigation of mycotoxins contaminated feed effects in broiler chickens supplemented by <i>Bacillus</i> -based anti-biotoxins solution (Clarisse Techer; Mixscience)
15H10 – 15H30	Q&A Session for all presenters
15H30 – 16H00	TEA
16H00 – 17H00	POSTER SESSION
17H00 – 18H30	POWER HOUR: FROM SCIENTIST TO (SOCIAL) ENTREPRENEUR (Panellists: Ms Aida Bakri - Co-founder of LadyAgri and social entrepreneur; Dr. Michèle Mbo'o-Tchouawou - Deputy Director, African Women in Agricultural Research and Development; Ms Farana Boodhram - CEO, Innovator, Director: WIMBIZ SA (Women in mining business); Mr Peter Awin; CEO and Co-founder of Cowtribe)

PARALLEL 6

MYCOSAFE-SOUTH SESSION: (Coordinator: Prof Siska Croubels; Ghent University, Belgium)

Session chair:	<i>Prof Siska Croubels and Dr Gunther Antonissen</i>
14:00 – 14:20	Aflatoxins in the poultry and dairy value chains in Kenya (Johanna Lindahl, International Livestock Research Institute; Kenya)
14:20 – 14:40	Lessons learned from 20 years of research in mycotoxin detoxification (Gerd Schatzmayr, DSM/Biomin; Austria)
14:40 – 15:00	LC-HRMS-based strategy for mycotoxin biomonitoring using volumetric absorptive microsampling (Silvio Uhlig, Norway)
15:00 – 15:20	Nixtamalization of maize and sorghum to limit mycotoxin exposure among humans in Soweto squatter camps in Gauteng, South Africa (Palesa Ndlangamandla; University of Johannesburg; South Africa)
15:20 – 15:40	TEA



15:40 – 16:00	Tackling mycotoxin dangers in human foods using in vitro and in vivo animal models: mitigation of aflatoxins and fumonisins (Kaat Neckermann; University of Ghent; Belgium)
16:00 – 16:20	Safety and efficacy of mycotoxin detoxifiers as intervention strategies to reduce chicken exposure to mycotoxins and carry over to chicken products (Phillis Ochieng; University of Nairobi; Kenya)
16:20 – 16:40	Efficacy of bentonite and fumonisin esterase separately or combined in mitigating the effects of aflatoxins and fumonisins in indigenous and exotic dairy cattle (David Kemboi; University of Nairobi; Kenya)
16:40 – 17:00	MycoSafe-South lessons learned and final conclusions (Siska Croubels, Gunther Antonissen; University of Ghent; Belgium)
17:00 – 17:05	Group picture
17H00 – 18H30	POWER HOUR: FROM SCIENTIST TO (SOCIAL) ENTREPRENEUR (Panellists: Ms Aida Bakri - Co-founder of LadyAgri and social entrepreneur; Dr. Michèle Mbo'o-Tchouawou - Deputy Director, African Women in Agricultural Research and Development; Ms Farana Boodhram - CEO, Innovator, Director: WIMBIZ SA (Women in mining business); Mr Peter Awin; CEO and Co-founder of Cowtribe)

Wednesday 7th September 2022

PARALLEL 7

THEME 6: NEW TECHNOLOGIES TO ENSURE FOOD SECURITY AND FOOD SAFETY

Session chair:	<i>Prof Olusegun Atanda and Salma Guermech</i>
09H00 – 09H30	Keynote: European and African dialogue in mycotoxin management (Dr Antonio Logrieco; Coordinator of MYCOKEY; Director: Institute of Sciences of Food Production of National Research Council of Italy)
09H30 – 09H45	Investigations into <i>Fusarium verticillioides</i> -maize interactions related to fumonisin production under drought stress conditions an omics approach (Mariska Lilly; Cape Peninsula University of Technology; South Africa)
09H45 – 10h00	Robust, high-throughput, fast polarity switching LC-MS/MS method for the quantitation of 530 mycotoxins, masked mycotoxins and their metabolites (Volker Krufft; SCIEX)
10H00 – 10H15	Implementing actinobacteria as a biocontrol tool to reduce <i>Fusarium graminearum</i> and its mycotoxins in wheat (Larissa De Troyer; University of Ghent, Belgium)
10H15 – 10H30	Q&A session for all the presenters
10H30 – 11H00	TEA
11H00 – 11h25	Keynote: Genomics and metabolomics, key tools for screening and understanding mycotoxin variability in toxigenic fungi (Dr Antonio Moretti; Research Leader: Institute of Sciences of Food Production of National Research Council of Italy)
11H25 – 11H40	Inhibitive effect of <i>Urginea epigea</i> methanolic extract and silver zinc oxide on <i>Aspergillus</i> growth and aflatoxin B1 production (Martha Jobe; North West University; South Africa)
11H40 – 11H55	Incidence of multiple mycotoxins in maize grown under conservation agriculture practices on small scale farmer fields in KwaZulu-Natal in South Africa (Belinda Janse van Rensburg; Agricultural Research Council Grain Crops, Potchefstroom; South Africa)
11H55 – 12H10	Detection of mycotoxigenic fungi on and in maize kernels using hyperspectral imaging (Paul Williams; Stellenbosch University; South Africa)
12H10 – 12H25	Q&A session for all the presenters
12H25 – 12H40	Silver sponsor presentation: Fermentek
13H00 – 14H00	LUNCH

PARALLEL 8

African Postharvest Losses Information System (APHLIS) Workshop (Felix Rembold and Monica Ermolli from European Commission)

09H00 – 13H00 **APHLIS workshop**

13H00 – 14H00 **LUNCH**

PARALLEL 9

THEME 7: CURRENT AND FUTURE CHALLENGES TO ENSURE FOOD SAFETY

Session chair: *Prof Jane Misihairabgwi and Bwalya Katati*

14H00 – 14H25 **Keynote:** “Public Innovation Laboratories and food safety: Building on food systems change” (Dr Naude Malan, University of Johannesburg; South Africa)

14H25 – 14H40 Awareness on aflatoxin and the effect of the traditional farmer practice of soaking in-shell peanuts on *Aspergilli* load and aflatoxin level in stored grain (Chama Mwila; International institute of tropical agriculture; Zambia)

14H40 – 14H55 Biodiversity and distribution of *Aspergillus* species and their toxins in commercial maize from western and eastern regions of South Africa (Queenta Ngum Nji; Northwest University; South Africa)

14H55 – 15H10 Q&A session for all the presenters

15H10 – 15H25 Silver sponsor presentation: DSM

15H30 – 16H00 TEA

16H00 – 17H00 *Removal of posters*

19H00 - STELLENBOSCH SOIREE DINNER
Join us for good food, world renowned wine from the Stellenbosch Wine route and entertainment for the Stellenbosch Soiree at the Nooitgedacht Wine Estate in Stellenbosch.

Coaches depart from the Stias Conference Centre at 18h00 for the Soiree.

Coaches return from the Soiree at approximately 22h30 for Stellenbosch.

PARALLEL 10

14H00 – 17H00 **MYTOX-SOUTH® TECHNICAL WORKSHOP** – Trouble Shooting in Mycotoxin Detection (Presented by: Christ’l Detavernier, Mario Van de Velde, Dr. Celine Meerpoel, UGent; Belgium)

During the technical workshop, organized for technical staff-members and researchers, the most important technical challenges in mycotoxin analysis will be discussed. Participants will get the chance to raise their specific technical challenges which they encounter in their respective laboratories and analysis protocols during mycotoxin analysis.



There will be a **selection of maximum 15 applicants (*application form will be available at the registration desk*)**. The applicants should present an important technical issue in their mycotoxin analysis which they have troubles with to solve. The technical challenges should address one of the following 3 topics: **Sample preparation (extraction methods, clean-up methods, multi-mycotoxin methods), analytical methods (HPLC-UV, HPLC-FL, LC-MS/MS) and data processing (mycotoxin identification, quantification, interpretation, validation)**.

We hope to welcome you so that together we can contribute solving your technical problems.

17H00

Removal of posters

19H00 -

STELLENBOSCH SOIREE DINNER (See note above)
