



AFROSENSE 2024 REPORT

(REGIONAL SENSORY AND CONSUMER SCIENCE CONFERENCE)

THEME
**IMPROVING NUTRITION AND WELLBEING OF CONSUMERS THROUGH A
HOLISTIC SENSORY EXPERIENCE**

DATE: NOVEMBER 27TH – 29TH / ACCRA - GHANA
VEUE: ISSER CONFERENCE FACILITY, UNIVERSITY OF GHANA, LEGON

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CONFERENCE OVERVIEW

Sensory and consumer science is a young field in the scientific community. In Africa, there are only a few experts in this field. There is a growing need to build capacity and strengthen understanding of this field in Africa. The Africa Network for Sensory Evaluation Research (ANSWER) has taken on this challenge to grow the discipline in Africa through capacity building, training, and research. In alignment with this objective, ANSWER hopes to organise periodic regional conferences (AFROSENSE) across the African continent.

The aims of these meetings are to strengthen the network of African sensory science experts, engage with industry, academia and the general scientific community in Africa and promote the field of sensory science as a scientific discipline in Africa.

The first of these meetings (AFROSENSE 2024 Conference) was held in Accra-Ghana. Ghana is in West Africa and is considered globally as the gateway to Africa. Ghana is an English-speaking country and has a multicultural society with strong ethnic and religious diversity. It is peaceful and has a warm hospitable citizenry. Although agriculture is the main economic activity in Ghana, most are smallholder farmers. The population is relatively highly educated and has a strong service industry with a growing strength in manufacturing. These features make Ghana an attractive destination to host the first regional meeting for ANSWER.

The AFROSENSE 2024 Conference was successfully held from 27th - 28th November 2024 at the ISSER Conference Facility, University of Ghana, Legon. This maiden conference, themed “Improving Nutrition and Well-being through a Holistic Sensory Experience,” brought together researchers across Africa, industry leaders, students, and other stakeholders to share insights, discuss innovations, and foster collaborations in the field of sensory and consumer science in Africa.

A total of 85 people from eight (8) countries (Ghana, South Africa, Benin, Nigeria, Ethiopia, Egypt, Finland, and Cote d’Ivoire) participated in the conference. Seventy-eight (78) students also participated in the second day of the conference.

The activities of the conference included four (4) keynote addresses, three (3) plenary sessions (oral presentations), one panel discussion from industry, a breakout (workshop) session, and poster presentations over the two-day period. On Friday, November 29th, 2024, some participants took part in an industry visit to Mane Fils Ghana Ltd.

DAY 1

The conference was opened on Wednesday, November 27th, 2024 by the Chairperson of the conference, Prof. Augustine Ocloo (Dean, School of Biological Sciences, University of Ghana). This was followed by a series of welcome addresses by Prof. Seth Adu- Afarwuah (Head of Department, Department of Nutrition and Food Science, UG), Prof. Riette de Kock (Chairperson of ANSWER). Goodwill messages were received from the Association of Ghana Industries (AGI) represented by Mr. Johnson Opoku Boateng, SSGG represented by Prof. Paula Valera Tomasco who joined via zoom, Pangborn Trust represented by Prof. John Hayes and Compusense Inc represented by Mr. Bryson Bolton who also joined via zoom.



Figure 1: Prof. Ocloo delivering his welcome address

Day one featured a keynote speech, a plenary session, poster presentations, and a networking cocktail reception.



Figure 2: Prof. Riette and Prof. Adu- Afarwuah delivering their welcome address



Figure 3: Mr. Opoku Boateng delivering his goodwill message address

Keynote 1



Dr. Maame Yaakwaah Blay Adjei, Vice President and Treasurer of the ANSWER Network and PI of the University of Ghana-Sensory Evaluation Laboratory, delivered the first keynote for the conference on the topic “Sensory and consumer science, a useful tool for developing nutritious foods.”

Figure 4: Dr. Maame Yaakwaah Adjei presenting her keynote

Plenary Session 1

“Sensory and consumer research across Africa”



Figure 5: from left, Dr. Niiante Amissah, Dr. Maame Yakwaah Adjei, Prof. Riette de Kock and Prof Ganiyat Olatunde

The session was moderated by Dr. Joyce Agyei-Amponsah and chaired by Dr. Joris Gerald Niilante Amissah.

Prof. Riette de Kock, a professor in food science at the University of Pretoria, South Africa, gave her insights on sensory and consumer science research from South Africa.

Prof. Abadi Gebre, a professor in food science and technology at Hawasa University in Ethiopia, joined the session via a Zoom call to share his insights on sensory and consumer research from Eastern Africa.

Prof. Ganiyat Olatunde a food quality and assurance expert from the Federal University of Agriculture, Abeokuta, Nigeria shared her insights on sensory and consumer research from Western Africa.

Dr. Nagwa Bakr, a museologist & anthropologist at the National Museum of Egyptian Civilisation also joined the session via a zoom call to share her insights on sensory and consumer research from Northern Africa.



Figure 6: Dr. Nagwa Bakr presenting her insights via zoom

The presentations were followed by questions and answers and discussion on the topic.

Poster Presentations

The conference received a total of thirty (30) abstract submissions, which were thoroughly reviewed by



Figure 7: Some delegates presenting their posters

the Academia/ Research/ Student & Alumni Engagement sub-committee of the Local Organising Committee (LOC). The submitted abstracts underwent a double-blind review, and average scores were used to make the final selections.

There were seven (7) oral presentations and seventeen (17) poster presentations during the conference.

Reception and Networking

The first day of the conference ended with a sponsored cocktail reception and networking session.

Scenes from Day 1



DAY 2

Keynote 2

The second day of the conference kicked off with a keynote presentation from Ms. Portia Owusu, a consumer insight analyst at Sentinel Foods & Beverages Research, a subsidiary of PAMP Ghana Ltd. She delivered her presentation on the topic, “Bridging the research commercialisation divide with sensory and consumer science: Bringing sensory and consumer science relevance to industry from a private eye.”



Figure 8: Ms. Portia Owusu presenting her keynote

Panel Discussion

“The role of sensory science in industry research”



Figure 9: from the left: Dr. Abena Boakye, Mr. Carson, Ms. Fantodji, Ms. Elizabeth Mensah and Dr. Niilante Amissah

Dr. Abena Boakye moderated a panel of experts from various industry stakeholder groups, which included Mr. Kofi Carson, the chief executive of Aphro Spirits; Ms. Ahouefa Fantodji, the head of department of Fan Milk Research and Innovation, West Africa; Ms. Elizabeth Ama Mensah, a food

research and development advocated at Golden Africa Industries Ghana Ltd and Dr. Joris Gerald Niilante Amissah, a senior lecturer and product developer at the University of Ghana- Product Development Lab. The panel discussed the role of sensory science in industry research.

Keynote 3



Figure 10: Prof. Adu-Afarwuah delivering the third keynote

Prof. Seth Adu- Afarwuah, a professor in human nutrition, delivered the third keynote on the topic Consumer sensory acceptance of micronutrient-fortified foods lessons from three nutrition intervention studies.”

Plenary Session 2

“Consumer research in African food industries”

The session was moderated and chaired by Dr. Joris Gerald Niilante Amissah.

The first speaker, Ms. Cecille Aboagye from UG-SENLAB delivered an oral presentation on the topic “Application of conjoint analysis as the fuzzy front end in product development.”

Ms. Charmaine Sehoole from the University of Pretoria in South Africa delivered her oral presentation on the topic, “Can culinary innovation, food styling, and photography get consumers to jump on the cowpea wagon?”

Ms. Nomzamo N. Dlamini, also from University of Pretoria in South Africa delivered her oral presentation on the topic, “Identifying and measuring food choices motives in urban South Africa.”



Figure 11: from the left: Ms. Cecille Aboagye, Prof. Ganiyat Olatunde, Ms. Charmaine Sehoole, Ms. Nomzamo Dlamini and Dr. Jeannine Marais

Prof. Ganiyat Olatunde delivered an oral presentation on the topic “Optimised puffed snack from malted pearl millet and cowpea flour blends: nutritional composition and sensory profile” on behalf of Mrs. Olubunmi S. Olaleye- Haroun from FUNAAB in Nigeria.

The final presenter for the session, Dr. Jeannine Marias of the University of Stellenbosch, South Africa, delivered her oral presentation on the topic “Descriptive sensory analysis of wild versus farmed tilapia.”

Keynote 4

Prof. Patrick Adjei, a professor in neurology, delivered the final keynote for the conference on the topic, “Brain health and sensory perception—the effect of diseases on food choice.”



Figure 12: Prof. Patrick Adjei delivering his keynote

Plenary Session 3

“Tailored sensory and consumer research- examples from industry”



Figure 13: Ms. Linda Marais- Lombard and Ms. Sophie Coste

The session was moderated by Ms. Zeenatu Adams.

A presentation was jointly delivered by Ms. Linda Marais- Lombard and Ms. Sophie Coate, both from V. Mane Fils, South Africa, on the topic, “Tailored approaches to sensory and consumer preference research in Africa.” This was followed with a question-and-answer session.

BREAKOUT SESSIONS/ WORKSHOP WORKING SESSIONS



Figure 14: Some delegates during breakout session

Delegates participated two interactive working session.



Group 1 participated in a sensory activity in the University of Ghana- Sensory Evaluation Laboratory. The group activity was facilitated by Mr. Emmanuel Addo- Preko and Ms. Beatrice Tagoe.

The session lasted approximately 20 minutes and included two exercises: a salt intensity ranking test and a triangle test.

In the ranking test, delegates were provided with five samples of varying salt intensities and tasked with ranking them from the most to least salty. The triangle test involved three samples of apple juice, where two samples were identical, and one was different. Delegates were asked to taste and identify the odd sample.

The activities were well-received, and the delegates expressed enthusiasm for the hands-on tasting experience. During a brief interaction session, delegates shared their feedback:

- Some appreciated the opportunity to be on the evaluation side, as they were familiar only with serving samples in the past.
- The triangle test was described as challenging, requiring focus and concentration.
- The salt intensity ranking test surprised participants, as the lower concentrations were more intriguing than expected.

Overall, the session was engaging and educational, leaving the delegates satisfied with their sensory experience. It successfully provided insights into sensory evaluation techniques and fostered greater interest in sensory science.

Group 2 participated in a food product attributes activity. The group facilitators were Prof. Ganiyat Olatunde and Ms. Cecille Aboagye. The session consisted of making a sensory description of different foods. Participants were assigned to sub-groups; there were five sub-groups with an average of 5 people each. Each sub-group was given a sample of three food items: a pack of cut mangoes, one Milo chocolate drink sachet, and one Fanyogo frozen yoghurt. The participants were asked to pour the contents of



every food in different containers (disposable plastic plates and cups). A spinning wheel containing different sensory attributes such as Creamy, sour, smooth, etc. were displayed on a screen. After every

spin, the needle at the top of the wheel indicated the attribute to be assessed in every food, the participants were to record whether the attribute was present in the food or not.

At the end of the session, each sub-group was given about two minutes to discuss which of the foods provided could be described by the selected attribute. After all 5 attributes were discussed, their sub-group leaders provided the foods that related to the attributes and the reason why they selected those foods.



Figure 17: Breakout session recap

POSTER COMPETITION

The following awards were presented for the best poster presentations:

- **1st Place: N'nan A. Sylvie Diby** - *Consumer preference criteria for Attieke, a fermented Ivorian cassava product*
- **2nd Place: Ayomide T Alamu** - *Extensibility: a novel approach to objective assessment of stretch ability in pounded yam*
- **3rd Place: Laurent Adinsi** - *Sensory texture and sweetness acceptance thresholds of boiled yam*



Figure 18: from the left: Laurent Adinsi, Ayomide T Alamu, and N'nan A. Sylvie Diby

The **Hely Tuorila Afrosense award for best poster** recognises the best poster by a student or emerging research at the event. The name of the award recognises the support from Prof Hely Tuorila, emerita professor of the University of Helsinki. She was the 1st European Sensory Science (E3S)- Established Researcher Awardee in 2021 (E3S-ERA 2021). Hely donated the funds received as part of the Award to ANSWER to support the development of the network in Africa.

REFLECTIONS

The session featured Prof. Esther Sakyi- Dawson, a seasoned academic and professor from the department of nutrition and food science at the University of Ghana, who shared her personal reflections on the future of sensory science teaching in Africa. In her presentation, she highlighted the evolution, challenges and future directions of sensory science teaching in Africa.



Figure 19: Pro. Esther Sakyi Dawson sharing her personal reflections

Prof. Hely Tuorila, a food scientist from University of Helsinki in Finland also shared her personal reflections on the future of sensory and consumer science research from a global perspective.



Figure 19: Pro. Hely Tuorila sharing her personal reflections

PARTICIPATION OF UNIVERSITY OF PRETORIA RESEARCHERS AND POST GRADUATES IN THE EVENT

BY
Nomzamo Dlamini

AfroSense 2024 held in Ghana, a highlight on the calender

The AfroSense 2024 Conference organised by the African Network for Sensory Evaluation Research (ANSWER), was held 27-28 November 2024 at the University of Ghana in Accra, Ghana. It brought together experts, researchers, and practitioners in Sensory and Consumer Science to share knowledge and findings on improving nutrition and the wellbeing of consumers through holistic sensory experiences. This event served as a vibrant platform for the exchange of knowledge, ideas, and practices tailored to the unique challenges and opportunities in Africa.

On reflection, AfroSense 2024 was a resounding success, drawing attention to the important role of Sensory and Consumer Science in shaping the future of people's nutrition and wellbeing in Africa. The conference fostered a spirit of collaboration and innovation, inspiring participants to leverage their expertise in addressing pressing challenges. As the delegates departed, there was a tangible sense of optimism and commitment for advancing the field, ensuring that the insights and ideas generated at AfroSense 2024 would drive meaningful change in the years to come.

The University of Pretoria played a significant role at AfroSense 2024, represented by a distinguished team led by Professor Riëtte de Kock. Professor de Kock, Chair of ANSWER delivered an inspiring welcome address, sharing the rich history of ANSWER and AfroSense and its evolution as a platform for Sensory and Consumer Science research in Africa. Her address underscored the University of Pretoria's commitment to advancing the field and fostering collaboration across the continent.

Professor Hely Tuorila, another prominent representative from the University of Pretoria, gave the final talk of the conference, offering a comprehensive perspective on the future of sensory and consumer science from a global viewpoint. Her instrumental contribution and support of ANSWER Consumer Research was honoured with the official naming of the best poster presentation award after her. This recognition highlighted her lasting impact on the field and her dedication to nurturing emerging researchers in Africa.

The University of Pretoria's PhD students also made important contributions. Charmaine Schoole delivered a captivating talk titled "Can culinary innovation, food styling, and photography get consumers to jump on the cowpea wagon?" Her presentation emphasized the power of creative approaches to promote underutilised crops like cowpeas. Nomzamo Dlamini presented her research on "Identifying and measuring food choice motives in urban South Africa." Her talk included a call to action for attendees to adopt the newly developed tool designed to better capture the unique food choice dynamics in African contexts. Finally, Irene Darkwa shared two poster presentations showcasing her innovative work on creating gourmet recipes using tigernut cheese, blending tradition with modern culinary trends.

The contributions from the University of Pretoria's team enriched the conference and demonstrated the institution's leadership in Sensory and Consumer Science, further solidifying its role in addressing Africa's nutrition and wellbeing challenges.

Scenes from Day 2



VISIT TO MANE GHANA LTD.

On Friday, November 29th, 2024, to climax Afrosense 2024, an industry visit to MANE Ghana Ltd., a leading company in the flavour and fragrance industry, was organised. The visit provided delegates with an opportunity to gain insights into MANE's operations, explore their innovation processes, and understand the applications of sensory science in the industry.

Delegates toured four laboratory facilities and sampled some flavours from the various laboratories.

The visit was attended by 17 delegates, 2 LOC members, and 3 volunteers.



Figure 22: Some delegates at MANE Ghana Ltd.

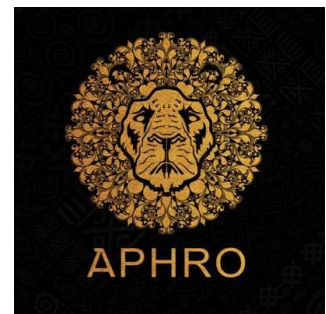
AFROSENSE PARTNERS AND SPONSORS

Partners:

School of Biological Sciences;



Sponsors:



ORGANISING TEAM

Chairperson

Dr. Maame Yaakwaah Blay Adjei

VP and Treasurer – ANSWER Network

PI- UG-Sensory Evaluation Laboratory

Local Organising Committee

Prof. Faustina Manu

Academia / Research/ Student & Alumini Engagement

Dr. Abena Boakye

Academia / Research/ Student & Alumini Engagement

Dr. Joyce Adjei- Amponsah

Academia / Research/ Student & Alumini Engagement

Dr. Joris Gerald Niilante Amissah

Academia / Research/ Student & Alumini Engagement

Mrs. Mammie Hutchful Nortey

Events coordinator/ Protocol Manager

Ms. Enyonam A. Boakye

Communication/ Publicity/ Audiovisuals

Mr. Bright Kwaku Avuglah

Hospitality/ Exhibition Planning

Mr. Johnson Opoku Boateng

Industry Engagement/ Exhibition

ANSWER Executives

Prof. Riette de Kock

Academia / Research/ Student & Alumini Engagement

Dr. Ganiyat Olatunde

Academia / Research/ Student & Alumini Engagement

This report was written by Dr. Maame Yaakwaah Baly Adjei and Enyonam A. Boakye

December 2024

APPENDIX

Appendix A. List of Participants

S/N	NAME	TYPE OF DELEGATE	COUNTRY
1.	Riette de Kock	International	South Africa
2.	Nomzamo Nthabiseng Dlamini	International	South Africa
3.	Oratile Charmaigne Sehoole	International	South Africa
4.	Jeannine Marais	International	South Africa
5.	Sophie Coste	International	South Africa
6.	Linda Marais-Lombard	International	South Africa
7.	Irene Darkwa	International	South Africa
8.	Dr (Mrs) Ezinne Prisca Obinwa	International	Nigeria
9.	Ejeabukwa, Chima Angela	International	Nigeria
10.	Nwakanma Immaculeta Chidiebere	International	Nigeria
11.	Otegbayo Bolanle Omolara	International	Nigeria
12.	Alamu, Ayomide Dorcas	International	Nigeria
13.	Dr. Mrs Clara Nneka Okoroafor	International	Nigeria
14.	DIBY, N'Nan Affoue Sylvie	International	Cote d'ivoire
15.	Akissoe H. Noel	International	Benin
16.	Adinsi Laurent G.	International	Benin
17.	Mahounakpon Wilfried Tossou	International	Benin
18.	Beatrice Boak	International	
19.	Bryson Bolton	online	Canada
20.	Nagwa Bakr	online	Egypt
21.	Paula Valera Tomasco	Online	
22.	Hely Margareetta Tuorila	Speaker	Finland
23.	Ganiyat Olatunde	Speaker	Nigeria
	Local		
24.	Winnifred Aba Akwanowa Amissah	Local	Ghana
25.	Lawrencia Amoah	Local	Ghana
26.	Nana Ama Donkor-Boateng	Local	Ghana
27.	Elizabeth Esi Sekyi	Local	Ghana
28.	Evelyn Ama Otoo	Local	Ghana
29.	Vera Wemoye Abajegebawo	Local	Ghana
30.	Dorcas Naa Norley Thompson	Local	Ghana
31.	Christy Grace Tekpo	Local	Ghana
32.	Beatrice Boakyewaa Blay	Local	Ghana

33.	Matthew Atongbiik Achaglinkame	Local	Ghana
34.	Ama Afra Darkwa	Local	Ghana
35.	Linda Boamah	Local	Ghana
36.	Diana Amponsah	Local	Ghana
37.	Mary Marshall	Local	Ghana
38.	Akua Boatemaa Arthur	Local	Ghana
39.	Nana Adjeiwaa Owiredu-Akwafo	Local	Ghana
40.	Barbara O. Boye	Local	Ghana
41.	Frederick A. Aboagye	Local	Ghana
42.	Nana Adjeiwaa Owiredu-Akwafo	Local	Ghana
43.	Keren Yayra Nyavor	Local	Ghana
44.	Prof. Otoo	Local	Ghana
45.	Dr Abena Boakye	Local	Ghana
46.	Esi Colecraft	Local	Ghana
47.	Agnes S. Budu	Local	Ghana
48.	Finbu K. Saalia	Local	Ghana
49.	Esi Colecraft	Local	Ghana
50.	Abigail Danso	Local	Ghana
51.	Dennis Attuquayefio	Local	Ghana
52.	Magaret A. Attipoe	Local	Ghana
53.	Leticia AmoakoahTwum	Local	Ghana
54.	Angelina Youri	Local	Ghana
55.	Linda Acheampong	Local	Ghana
56.	Elizabeth Ama Mensah	Speaker	Ghana
57.	Portia Owusu	Speaker	Ghana
58.	Esther Sakyi-Dawson	Speaker	Ghana
59.	Seth Adu Afarwaa	Speaker	Ghana
60.	Patrick Adjei	Speaker	Ghana
61.	Kofi Carson	Speaker	Ghana
62.	Joyce Agyei-Amponsah	LOC	Ghana
63.	Joris Gerald Niilante Amissah	LOC	Ghana
64.	Johnson Opoku -Boateng	LOC	Ghana
65.	Enyonam A. Boakye	LOC	Ghana
66.	Abena Boakye	LOC	Ghana
67.	Bright K. Avuglah	LOC	Ghana
68.	Cecille Aboagye	Organiser- SENLAB	Ghana
69.	Emmanuel Preko	Organiser- SENLAB	Ghana
70.	Beatrice Tagoe	Organiser- SENLAB	Ghana
71.	Susanna Rita Bassaw	Sponsor (PAMP)	Ghana
72.	Ama Frempomaa Oduro	Sponsor (PAMP)	Ghana
73.	Jacqueline Acquah	Sponsor (MANE)	Ghana
74.	Erasmus Armah	Sponsor (MANE)	Ghana
75.	Zeenatu Adams	Moderator	Ghana

76.	Maryse Monmarche	MC	
77.	Mammie Hutchful Nortey	LOC/ MC	Ghana
78.	Beatrice Tagoe	Volunteer	Ghana
79.	Dennis Dickson	Volunteer	Ghana
80.	Nora Dede Mangortey	Volunteer	Ghana
81.	Tahir-Deen Tahama Faridah	Volunteer	Ghana
82.	Richmond Agbeko	Volunteer	Ghana
83.	Bernard Awuah	Volunteer	Ghana
84.	Shaheed Adampsey	Volunteer	Ghana
85.	Priscilla Krampah Asmah	Volunteer	Ghana
86.	Eva Yaa Biamah Somuah	Volunteer	Ghana
87.	Vanessa Nakie Akosua Amenuveve Nyavor	Volunteer	Ghana
88.	Naa Laatele Tetteh-Kwei	Volunteer	Ghana
89.	Stefine Stone	Volunteer	Ghana

