

Dr Jimi Adebowale found a way to extend the shelf life of sorghum flour



Dr Adebowale O. Jimi, is a lecturer at the Federal Polytechnic Ilaro, in Nigeria. Pursuing a PhD in Food Science at the University of Pretoria has helped him to acquire in-depth knowledge on Sensory Science, Cereal Science and food product shelf life. Jimi commented “The PhD boosted my career as a food scientist and academic. I plan to use the knowledge and skills to assist my community with better and more nutritious food.”

To achieve this life-long dream, he was eager to join a world class university with internationally renowned scientists as research supervisors. He weighed all the pros and cons and conducted a thorough search for a suitable institution that could provide him with adequate research support. UP proved to be his “place of dreams” and he registered as a post-graduate student in 2016. This was the beginning of a new dawn and an exciting academic journey.

“In the course of the pursuit, I had to deal with many challenges.” For instance, during the latter part of my research the decisions on experimental design and sampling strategies for the storage trial provided lots of stress and severe headaches. “I spent a long time brainstorming ideas and had to conduct an extensive literature search. My health was put to the test. Finally, I found a solution to the problem.” An agreement on the strategy to follow was reached with my supervisors after justifying the reasons with solid scientific evidence.

Completing the PhD is a personal milestone but the research and findings could also make an important impact in society. “I provided a clearer understanding of the mechanisms to enhance the shelf-life of sorghum flour through dry heat treatments (microwaving or roasting of the kernels).” The evidence was provided based on the evaluation of the sensory characteristics of porridge prepared from sorghum flours stored for different time periods. Utilisation of sorghum flour for human consumption is limited by its susceptibility to lipid hydrolysis and oxidation causing rancid off-flavours. Sorghum is a drought-resistant, indigenous-to-Africa crop that has the potential to address food security on a large scale. Dr Adebowale published the findings on the shelf-life of sorghum flour in an international, peer-reviewed paper.

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