Utilization of Climate Resilient Indigenous Plants for Food Security in South Africa

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Abstract

Food security is a big challenge in South Africa. The overall food security status of the population stands below 50%, with one in five rural South African households meeting their average dietary energy costs. The situation is likely to be exacerbated given the current economic challenges associated with COVID-19 setbacks and projected population growth to 9.8 billion by 2050 (United Nations, 2017). This necessitates finding cheaper alternative food sources to the exotic crops dominating the South African agricultural system. Many indigenous fruit species have great potential as cheap alternative food sources and functional ingredients for the local and export markets but have not been exploited. This talk will highlight some climate resilient indigenous plants that should be considered for food security in South Africa. A diversification in modern agriculture to include such crops is a good strategy towards meeting food security targets. It is a common trend that in periods of drought or agricultural constraints, wild edible fruits become a source of food and income for rural communities. Some are planted in home gardens to safeguard against income inconsistencies. Incorporating them into mainstream agriculture could alleviate the threat caused by global climate change on food security. The talk will also highlight fruit nutritional value and functional properties that could be exploited to improve the quality of existing commercial products to acquire a robust food system.

Biography: Nomali Ziphorah Ngobese

Dr Nomali Ngobese is a Botanist at the University of Johannesburg. She was originally trained as a Plant Biologist, working on plant propagation and conservation, at the University of KwaZulu-Natal up to MSc level. She later branched into the discipline of Agricultural Engineering, where she focused on potato cultivation and processing, and developed an inclination towards agro-processing. She expanded on this interest by sourcing and characterizing starch from unpopular seeds as a postdoctoral fellow at Agricultural Research Council in 2017. She currently works towards the nutritional characterization of plants to determine nutritional value and develop postharvest handling procedures to extend shelf life. Her research interests include improving plant cultivation conditions, identifying suitable harvest stages and evaluating quality changes associated with food preparation. Her work is aimed at alleviating food and nutrition insecurity for vulnerable communities.