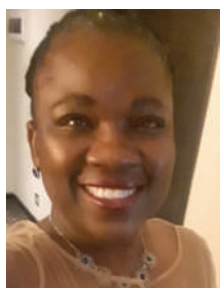


Dr Kgabo Moganedi shares her research passion: the development of an indigenous African wine

Marula wine is an African traditional brew made from the ripe fruit of a marula tree. It is a brew that is held in high regard within the African communities and has deep socio-cultural significance that unites the community during the fruit harvest.

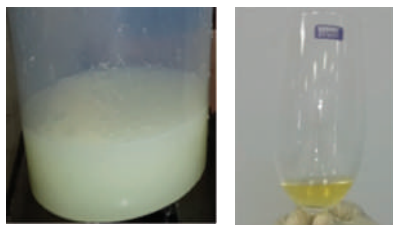


Dr Kgabo Moganedi

The wine is produced by the women, mostly for their partners who appreciate and consider it as potent and able to restore a man's vigour. Nowadays, the women in the villages brew the wine for trading and this offers a much-needed income for the families. However, this is short-lived because the wine is only produced from late January to late March. The market for this African brew is dominated by men from the villages and those who travel from the cities to the villages to get their potions. The major shortcoming in the production of the traditional marula wine is its short shelf-life as it develops a bitter taste after seven to ten days of production.

The production of marula wine follows a spontaneous fermentation process, with the marula fruit juice and water as the ingredients. This is similar to grape wine which has been perfected by studying the dynamics during the brewing process and standardising the product. By studying the microbiological and chemical profiles of the marula wines from various localities, the essential micro-organisms that facilitate the fermentation process have been isolated and identified and the chemical principles that contribute to the aroma and taste of traditional marula wine were revealed.

The findings revealed significant geographical variations in the quality of the marula fruit and different handling and processing by different brewers during the brewing process were taken into account. This knowledge, generated from the analyses of the marula wines, is currently being used to develop a long-lasting typical marula wine without using any chemical preservatives.



What is the impact of this study for South Africa?

The current process of marula wine production is laborious and the resulting wines from different communities differ in strength and taste. The common spoilage of the wine necessitates frequent brewing in small volumes but this creates a labour burden on the women brewers while limiting the opportunity for a bigger profit margin. This project makes use of the resources that are available in the communities to develop a product that will bring financial stability and security to the communities.

This is in line with the National Development Plan of South Africa which is committed to breaking the cycle of poverty in the rural areas through the creation of an integrated and inclusive rural economy, and Vision 2030, which seeks to improve the socio-economic status of South African rural communities through provision of skills and education to facilitate their participation in the mainstream economy of the country.

Are students being trained in marula wine production?

The project currently hosts seven postgraduate students; two Doctoral, three Master's and two BSc (Honours) students. One student graduated in spring with a Master of Science degree. Five of these students are female.

Who is funding the project?

The project received a grant of R845 000 for 2015 to 2017 from the National Research Foundation in the Indigenous Knowledge System programme. The funds were used for the analyses of the microbiological and chemical composition of the marula wines. The current undertaking is financed through seed funding of R500 000 from the Technology Innovation Agency for development of a marula wine prototype.

What next?

This current project on marula fruit wine opens opportunities and serves as a template to explore other indigenous fruits and foods for development into products that can enter the mainstream economy through enhancement of the existing indigenous technology. Traditional technology employs organic processes and the products are not harmful to the environment. There is a wealth of untapped knowledge within the communities which needs to be explored to address food shortage and economic security.



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