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**PRESS RELEASE**

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**Indigenous, instant superfood for Rural Children**

*“My mom was diagnosed* with diabetes when I was in high school and I was the one who was more interested in making sure she gets the right food to manage her condition in addition to the medical treatment,” says Dr Nokuthula Vilakazi, a recent University of Pretoria PhD graduate.

Vilakazi sought to go into the food industry to help rural people find other ways of managing common medical conditions through the local rural diet, instead of relying on foreign expensive foods and medication.

[Her research](http://repository.up.ac.za/handle/2263/51189) into a locally-produced superfood is bringing her closer to realising that dream.

For her PhD research, she chose to look into the possibility of using locally-produced grains – sorghum and cowpea – to develop a nutritious ready-to-eat meal comparable to commercial products.

She has a particular desire to improve the diets of young children in rural communities. She chose cowpea and sorghum because they are grains grown locally in the rural areas of and across sub-Saharan Africa.

Mothers in these areas often have no option but to feed their children food of little nutrition, so she wanted to create a ready-to-eat option poor mothers can afford. “I wanted to provide a product that is edible for young children in rural areas, something affordable which is also instant and nutritious,” she says.

She found that the ready-to-eat meal she made using pre-cooked indigenous grain flour compared well to a commercially available maize-soy based ready-to-eat product. And, unlike other crops that often fail, sorghum and cowpea are two of the oldest and well-established crops that grow successfully in rural areas.

She also found that the meal could provide most of the daily zinc, protein and iron requirements for small children, which is comparatively better than other fortified ready-to-eat meals on the market.

She made the ready-to-eat meal by milling the sorghum and cooking it in a specialised high-temperature barrel called an extruder, which is an energy efficient cooking method. She then cooked the cowpea using infrared light waves in a process called micronisation, after which she mixed the two to make the final product.

Vilakazi hopes to teach the technologies she used to make the superfood to local farmers so that they can produce the product themselves at an affordable price. “I would like commercial producers to get more involved in developing rural communities and to partner with scientists, and to use my research to introduce the technology and support it in the rural area.”

She is proud of her rural background in Mayflower in Mpumalanga. “I could always relate back to where I came from and I wanted to give back to my community; I get satisfaction from helping people especially the most neglected and children,” she says.

For her post-doc, which she’s taken up at the [Institute for Food, Nutrition and Well-being](http://www.up.ac.za/institute-for-food-nutrition-and-well-being), Vilakazi is going beyond grains. She wants to introduce bugs such as the Mopane worm, a highly nutritious, local delicacy, into her superfood. She also wants to conduct more tests to better understand how people will react to the nutrients from her product.

And she intends to share her science with the communities that need it most.

“I would like to clearly communicate my scientific work to the public using different media platforms and promote the work,” she says. “With enough exposure for studies like this one, industries could be sensitised to open up their doors and partner with scientists to have the work delivered in rural areas.