

# Mexico's Starch Secrets Can Aid SA

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**STAPLE DIET:** South Africa can take a leaf out of Mexico's book so the poor can get the nutrients they need from maize by following a method which has been in practice for many generations, says the writer.

MEXICO has one of the secrets to create a nutritional revolution in Africa, but benefiting from it will require an important combination of efforts from public, private, academic and research institutions. What we need is for South Africans and Africans more broadly to understand how Mexico has, for centuries, managed to

cook its starch in a way that keeps its essential nutrients.

Eight hundred years before Christ was born, and long before the Aztec civilisation, Mexicans developed a technique of cooking maize which ensured that many of the essential nutrients and protein remained in the food products.

What few people know is that maize originated in Mexico, and was then taken by Christopher Columbus to Europe, but without any of the indigenous knowledge of how to prepare it in order to enhance its nutritional value and the feasibility to prepare different maize-based food products.

The Spanish and Italians would merely boil the maize and eat it as corn on the cob. The Portuguese then brought it to Africa, where it has remained a staple food on the continent.

But the way in which the colonials prepared the maize failed to utilise the ancient Mexican technique – to add an alkaline solution (lime) or ashes to the boiling pot of maize in order to maintain its nutrients.

Throughout Mexican history, maize would always soak in lime overnight, and then be washed and used as dough the next day in over 300 different Mexican recipes.

The Mexicans call this process of maize preparation nixtamalisation, and it is also an industrial process in Mexico. At the household level, it implies the overnight soaking of the maize with lime; the maize undergoes a profound change which retains its calcium component.

The protein of the maize becomes more digestible, and the amino acids are retained, which are critical for human health, particularly the muscles and heart.

The process also increases the level of calcium, and decreases the mycotoxins in the derived food products.

Where this retention of maize's nutritional components becomes especially critical is among poorer communities where people cannot afford a balanced and diversified diet, and rely on maize as a staple as it is inexpensive and available. But the reliance on maize as a staple food source in Africa, which is prepared devoid of its nutritional components, results in a number of diseases due to a lack of protein in the diet.

The Mexican ambassador to South Africa, Mauricio Escanero, realised that this ancient technique of preparing maize could have substantial health advantages for the African continent, and has devoted a significant amount of time to bringing Mexico's most knowledgeable maize experts to South Africa to share their knowledge.

This week, a group of top Mexican maize specialists have been meeting with the Agricultural Research Council, academics from the University of Pretoria, producers from the maize association and representatives from various government departments. The objective has been to impart Mexico's ancient technique of maize preparation.

This is a great opportunity for South-South co-operation, and it is a very practical example of how we can learn and benefit from another developing country and adopt its ancient and inexpensive technique, which would have tremendous health advantages for our people.

Interestingly, many of South Africa's popular food products actually originated in Mexico, such as pineapples, squash, zucchini, sunflowers, tomatoes, avocado and maize.

For over 20 years, a Mexican food science specialist, Hector Agraz, has supplied Mexican food products to South Africans through his family business Azteca Mexican products, which is based in Midrand. The company supplies hundreds of South African restaurants with Mexican tortillas, nachos, tacos, salsas and sauces.



TESTED: One of the many ways to prepare maize for a meal.

Few would realise that the nachos, corn tortillas and fresh Masa corn dough have been nixtamalised, and are a great deal healthier than our usual intake of starches.

The most surprising aspect of the story around Mexico's nixtamalisation process is that it has taken so long for such a critical technique to be known to Africa.

A scientific paper was presented on Mexico's maize preparation in Ghana in the 1980s, and a workshop was held in Kenya more recently, but

the concept was not taken up and popularised yet.

Next week, we celebrate World Food Day on October 16, and a tremendous legacy our government could leave for future generations of South Africans is a wide-reaching awareness campaign of how our households and food industry can prepare our staple food in a new way, which will provide our children with the essential nutrients their bodies need to function as productive and healthy citizens.

What an amazing precedent that would create on the continent – it would usher in a new food revolution.