

# Pack 104, Item 3

Type: Script

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# Health benefits of sorghum, the forgotten cereal

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**Notes to broadcaster**

Sorghum is part of the cereal family—like millet, wheat, barley, maize, and rice. In fact, it’s the fifth most commonly grown cereal in the world. In Tanzania, it’s the second most grown cereal after maize. Sorghum is categorized according to its colours, white and red. It is rich in many nutrients, including protein, carbohydrates, several minerals, and vitamins B, C, and E.

Unlike other cereals, sorghum is not very commonly known and used in Tanzania, except in those cultures where it is used as a staple food for cooking foods such as *ugali (*stiff porridge), sorghum bread,or mixing it with beans or pulses to make what is known as *makande*. Sorghum is also used as a supplementary food in drought and hunger-stricken regions because of its drought-resistant properties.

But recent research and development has resulted in sorghum being more popular because of its nutritious qualities and healing properties. It has been suggested that eating sorghum can help people deal with anemia, cancer, diabetes, and high cholesterol. Sorghum is also being increasingly used as a substitute for maize flour.

Sorghum is now well-known across Tanzania, and one of the key ingredients in baby porridge, where it is mixed with peanuts, sardines, and maize flour.

This script looks at sorghum’s journey from an unknown to a famous cereal in Tanzania, with health benefits that surpass other cereals, and have put it on top of the cereal food chain as an alternative remedy for healthy lives.

You might choose to present this script as part of your regular farming program, using voice actors to represent the speakers. If so, please make sure to tell your audience at the beginning of the program that the voices are those of actors, not the original people involved in the interviews.

You could also use this script as research material or as inspiration for creating your own programming on the health benefits of sorghum or other foods.

Talk to nutritionists, other experts, and people who are experienced at cooking with sorghum. You might ask them:

* What is the history of growing sorghum and cooking with sorghum in your area?
* What kinds of adjustments do you need to make to substitute sorghum for maize or other cereals in common foods?
* What is the impact of eating sorghum on health?

Apart from speaking directly to nutritionists, cooks, and other experts, you could use these questions as the basis for a phone-in or text-in program.

Estimated running time for this item is 10-12 minutes, including intro and outro.

SIGNATURE TUNE FADES IN, FADES UNDER INTRODUCTION, THEN FADES UP AND OUT

**HOST:** Hello, and welcome to our special program on sorghum. (PAUSE) Recently, sorghum has become a popular food among Tanzanians of all ages. Unlike before when it was used only by certain cultures as a staple food, today sorghum has become a popular food served and sold in hotels, streets, and supermarkets. It has also become a popular baby food in the form of porridge which is mixed with other cereals and nutritious foods to supplement maize. Its taste and nutrition is preferred by many over maize in porridge and in the stiff porridge called *ugali wa mtama*, as people change their lifestyles to adopt healthier living.

 **SFX**: Sound of busy traffic and people walking on busy street at rush hour

**HOST:** Join me on a journey of discovery to understand how sorghum has become so popular and in some cases preferred over maize flour. We will learn why it has become a substitute for other cereals and what makes it so unique.

To understand these issues and the mysteries behind them, I spoke to a nutrition expert and sorghum researcher named Saidi Mankiligo, who is the Principle Nutrition Officer at Shinyanga District Council. Mr. Mankiligo is a graduate in Home Economics and Human Nutrition from Sokoine University of Agriculture in Morogoro, Tanzania.

Signature tune fades up for five seconds and out

**HOST:** Welcome to the program, Mankiligo. Can you tell us what all the buzz and fuss is all about and why now for sorghum?

 First, is sorghum a common food in your area and in Tanzania in general?

**SFX:** Sound of grass swaying in blowing wind. OCCASIONAL SOUND OF CHILDREN PLAYING AND LAUGHING.

**MANKILIGO:** Yes, sorghum is a common food in my area, and in the Central Zone of Tanzania too, because it’s used as a staple food by the Sukuma people, who come from this part of the country. It is as common as other cereals like rice, millet, and maize, but many people prefer it. They like eating sorghum because it produces a lot of energy when eaten at breakfast—which farmers need to keep them going until they finish farming in the evening. Sorghum is both high in carbohydrates—like other cereals—and very high in protein. Because of this fact, one meal of sorghum is enough for the whole day; farmers don’t feel hungry.

**HOST:** What nutrients is sorghum strong in? And what is the value and function of each particular nutrient?

**MANKILIGO:** Before talking about what nutrients are in sorghum and their value, we first need to know and understand what sorghum is. Sorghum is in the cereal family and is the second most grown cereal after maize in Tanzania.

Sorghum is categorized according to its colours, white and red. In Tanzania, white or *Serena* sorghum hastwo types: *Ndalasaba* and *Kakela*, and red sorghum also has two types: *Kakula* and *Mwanagudungu*. Each of these types has a number of varieties.

 Sorghum is rich in many nutrients, including carbohydrates, protein, iron, calcium, phosphorus, zinc, magnesium, potassium, sodium, antioxidants, and vitamins B, C, and E.

The antioxidants in sorghum help prevent colon and breast cancer, strengthen the immune system, and increase the iron and oxygen content in the blood to prevent anemia. Sorghum also reduces diabetes because it doesn’t contain cholesterol and has a lot of fibre. It also helps prevent obesity, regulates digestion because of its high fibre content, prevents stomach problems for people who can’t digest gluten, including those people who have celiac disease, and builds strong bones because of its high concentration of calcium.

**HOST:** What are the health benefits for children under five years old?

**MANKILIGO:** Because sorghum contains a lot of minerals, it helps maintain a healthy immune system that prevents babies from getting sick. It also prevents anemia, maintains strong and healthy bones, prevents diabetes, and builds strong hearts. It helps regulate metabolism and digestion in young children and promotes kidney health.

**HOST:** What about lactating or breastfeeding mothers?

**MANKILIGO:** Eatingsorghum helps reduce the chance of mothers getting breast cancer. It increases the oxygen and iron in the blood— which mothers lose a lot after giving birth—because it contains a lot of iron. It also reduces cholesterol, which is important for new mothers because they tend to eat a lot of fatty foods when they breastfeed.

Eating sorghum regulates digestion and prevents stomach problems because it has a lot of fibre and is free of gluten. Sorghum promotes healthy bones for women and children, and boosts their immune system, as new mothers are prone to disease after giving birth.

**HOST:** How about older people?

**MANKILIGO:** As people age, their intake of nutrients is limited. Sorghum helps maintain strong bones and prevent bone breaks because it contains calcium and magnesium. It also maintains or strengthens the immune system, protecting older people from common diseases that come with age, including cancer, anemia, and heart problems.

**HOST:** What about people with diabetes?

**MANKILIGO:** Sorghum has a lot of fibre, and fibre helps the digestive system to dilute sugar slowly in the body, therefore reducing the risk of diabetes. Used well over time, it can end diabetes completely.

**HOST:** Do pregnant women receive health benefits from eating sorghum?

**MANKILIGO:** Women need more nutrients when they are pregnant because they must consume enough for two people. A key nutrient in sorghum is iron, and this helps guarantee a healthy pregnancy by maintaining a strong immune system to prevent common diseases. It increases iron in the blood, which is very important because many pregnant women become anemic. The large amount of fibre in sorghum helps prevent indigestion, which is common during pregnancy. It also maintains healthy bones with calcium, zinc, manganese, and phosphorus. Finally, it helps prevent cancer though antioxidants, and prevents stomach problems for women who are intolerant of gluten.

**HOST:** What are the nutritional differences between red and white sorghum?

**MANKILIGO:** White sorghum has less protein than red sorghum, and has more calcium and potassium, which is good for bones, and acid control in the stomach. It’s good for baking when mixed with cassava flour.

On the other hand, red sorghum contains substances that make it difficult for the body to absorb protein. Thus, it needs careful preparation, including proper harvesting, drying, milling, and sifting to maintain its protein and other healthy nutrients. Farmers prefer red sorghum because it generates a lot of energy and can maintain that energy for a long time.

**HOST:** Sorghum sounds like a miracle cereal! Apart from all these nutrients and health benefits, what foods can you make with sorghum?

**MANKILIGO:** The main foods that can be made from sorghum are *ugali* and porridge. But you can mix sorghum with other foods or cook it alone to make *makande*, *pilau, chapatis,* buns, bread, biscuits, andthe local brew called *togwa* (*Editor’s note:* makande *is meal which is made from maize and beans, but can also be made with sorghum and beans or pulses, or any cereal and legume*)*.*

**HOST:** Thank you very much, Saidi Mankiligo, for sharing your knowledge and insights on sorghum. Now our listeners will know a little more about the importance of sorghum to their health. This is an eye opener to listeners who thought sorghum was only good for porridge!

 (PAUSE) After hearing from a nutrition expert about the health and nutritional benefits of sorghum, we wanted to hear the personal experience of someone who has used sorghum as a substitute for cereals like maize in common foods. Joyce Jacob has cooked with sorghum for some years and will now share her insights on using sorghum. Welcome, Joyce Jacob.

**JOYCE JACOB:** Thank you for the invitation, and I am glad for the opportunity to share my experience of choosing sorghum over other cereals. I like to use sorghum in porridge because it is more tasty and nutritious than maize, which takes longer to cook and has a plain taste compared to sorghum.

Sorghum has a lighter and finer texture than maize. Foods cooked with sorghum are easier to eat and digest more quickly than other cereals.

 You can also make buns with sorghum, and you can mix sorghum flour with maize or cassava flour to reduce the elasticity of dough and improve the texture, smell, and taste of whatever you cook with flour.

 Sorghum is my cereal of choice because it is easy to cook, tastes better, has a smooth texture, and gives the body more energy and health. Sorghum is rich in carbohydrates, in common with other cereals like rice and wheat. I would recommend it to people who want to remain fit and healthy.

**HOST:** Thank you, Joyce, for your insights on using sorghum. I believe our listeners have gained more understanding on using and cooking it, and now understand that you can use sorghum to make common foods, except that sorghum has a lighter texture and you need to use more flour than with coarser cereals like maize.

We hope that listeners will now think twice before picking other cereals over sorghum!

Thank you for tuning in to (name of program). Till next time, it’s me your host, (host’s name). Stay tuned!

SIGNATURE TUNE

## Acknowledgements

Contributed by: Raziah Quallatein Mwawanga, Independent producer

Reviewed by: Sauli Epimack, nutritional epidemiologist, Community Health and Nutrition, Tanzania Food and Nutrition Center, Dar es salaam, Tanzania

**Sources of information**

Interviews:

Saidi Mankiligo, December, 2015

Joyce Jacob, February, 2016

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