CROP PROFILE

Bambara Groundnut and the Reawakened 25

Edited by Dr. Sean Mayes, ICRISAT

THIS COLOURFUL LEGUME IS A SUPERSTAR AMONG NEGLECTED CROPS and it definitely deserves its fame. Bambara Groundnut is seen as one of the most promising crops for the agriculture of the future, especially in countries greatly affected by climate change. Not only is it drought resistant and not picky about the soil where it grows, but it is also surprisingly nutritious. It has 65% carbohydrate and 16-24% protein content. Nonetheless, in its homeland in West Africa this legume has been slowly abandoned due a reputation as a poor man's crop. Bambara was recognized by international researchers who are now studying the entire value chain of this crop, from production (genetics, physiology, and agronomy) to utilization. It is precisely the utilization that forms the biggest challenge to be faced by bambara, but the combined work of scientists and entrepreneurs shows great promise for the crop.





BAMBARA GROUNDNUT Vigna Subterranea

Origin: West Africa, likely North-Eastern Nigeria and Northern Cameroon Grown in: Africa, Southern Asia Complete food source able to grow on marginal land and in drought conditions

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BOTANY

Bambara groundnut is an annual herbaceous legume. The semi-creeping plant produces seed pods buried underground similar to its cousin, the well-known peanut (Arachis hypogaea). The seeds are produced from pegs plunged down from small, fertilized yellow flowers. Each pod contains one or two seeds that can vary in color anywhere from white, cream, brown, red, black, or speckled. The seeds are large, smooth and round, oval or sometimes flattened.

CULINARY USE

Young bambara groundnuts are often boiled or roasted in the shells or fried and sold as a roadside snack. When the seed reaches full maturity, it must be boiled and/or ground to become digestible. The resulting flour is used to thicken and flavor stews and porridges and to make dumplings and cakes. A plant-based milk is made from bambara.

NUTRITION AND MEDICINAL USE

Bambara groundnuts are considered a "complete food," as they contain 65% carbohydrates, 16-24% protein and 6.5% fat, along with a variety of micronutrients, making bambara a holistic nutrition provider and a great source of protein in cereal-based diets, providing a balance of essential amino acids between them. Nutritionally, people could live off a diet of bambara groundnuts alone.

AGRICULTURE

quality food in marginal agricultural spaces. As a legume, bambara groundnut has nodules that fix nitrogen into the soil. Thanks to this, bambara can grow in poor quality soils; bambara can even thrive in laterite, the red acidic soil characteristic of tropical agriculture that is inhospitable to many crops. Bambara groundnut is also drought resilient, providing yields in conditions where its cousin peanut fails to do so. As a nitrogen fixer, bambara groundnut is well suited for intercropping systems, supporting the growth of maize, millet, sorghum, cassava, yam and other crops. When ready to harvest, the whole plant is pulled from the ground, exposing the subterranean pods. The leaves can be used as animal feed. The largest producers of bambara groundnut are Mali, Burkina Faso, Cameroon, Niger and the Democratice Republic of Congo.

Bambara groundnuts are an excellent crop for providing food security and fighting malnutrition as they provide high

HISTORY AND RESEARCH

The bambara groundnut was named after the Bambara people, a Mandé ethnic group native to West Africa and living in Mali, Guinea, Burkina Faso and Senegal. The bambara groundnut is the third most important legume in Africa, following the cowpea and the peanut. Peanuts are not native to Africa, traveling from Paraguay and Brazil to Africa via Spain during the transatlantic slave trade; peanuts were quickly adopted because their cultivation and consumption mirrored that of the bambara groundnut. For centuries the bambara groundnut has provided holistic nutrition from marginal agricultural lands, enabling food security for producers. Unfortunately, bambara groundnuts receive far less attention than their cousin the peanut- in part because of their label and subsequent stigmatization as a "poor person's crop," and in part because those founding agricultural research have been largely ignorant on Africa's crop diversity. This is beginning to change, and bambara groundnut's potential is coming into the limelight.

CUISINE

- Bambara Groundnut Githeri Biodiversity for Food and Nutrition • Roasting of Bambara Groundnut [Video] - NUS Community
- <u>Mutakura Peanut and Bambara Beans Dish from Zimbabwe</u> The Spruce Eats
- Out of Africa: two recipes introducing you to Ghanaian cuisine The Guardian
- Creamy Bambara Beans Sauce Biscuits and Ladles • Nyimo(bambara nuts) dip - Princess Tafadzwa

• Believe in Bambara

SOURCING

- Vigna subterranea Bambara Groundnut Seeds Tail Wind Fruits
- Speckled Bambara Groundnuts True Love Seeds

• Bambara groundnut (Vigna subterranea (L.) Verdc.) - E. Nwokolo

COMMUNITY RESOURCES • Bambara Groundnut Basics - BamNetwork

- <u>Bambara Groundnut</u> Crop Trust
- Roasted Bambara groundnut: an emerging income source for women in Mali Biodiversity International
- Underutilized legume research at CFF Bam Yield

RESOURCES

- Bambara groundnut FAO

• Bambara Groundnut Illustration - NAP