

Ensemble 118

Interview

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**Groundnut production: The challenges and solutions of drying, sorting, and shelling**

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Notes to broadcaster

In Togo, groundnuts are ranked among the top three legumes. They are mainly grown in the Savanes, Kara, and Plateau regions where the climate and soil are suitable for cereals and legumes. They are an economic and food resource for farmers and consumers.

In Togo, groundnuts are the "coffee-cocoa" of the small farmer in the north. They represent rural savings

To produce a similar program on challenges and solutions for post-harvest activities in groundnuts, you could draw inspiration from this script. If you decide to present it as part of your regular farming program, you may choose to have voice actors or radio hosts represent the people being interviewed for the script. In this case, please inform your audience at the beginning of the program that these are the voices of radio hosts and voice actors, not the actual interviewees.

If you want to create a program about challenges and solutions related to groundnut drying, sorting, and shelling, talk to groundnut farmers, seed companies, groundnut specialists, and other stakeholders in the groundnut value chain. For example, you could ask them the following questions:

* Is groundnut grown in your area?
* What are the best practices to help farmers grow groundnuts successfully?
* How can farmers access good seed?
* What are the challenges and solutions in your region related to groundnut drying, sorting, and shelling? What effective and affordable methods or best practices do farmers use to address these challenges?

Estimated length of radio script with music, intro and extro: 20 minutes.

**HOST:** Good morning, dear listeners, welcome to our program. My name is Aristide Kawele.

Today, we are talking about groundnut farming, which involves many challenges, including those related to drying, sorting, and shelling. Our adventure, in Togo, takes us to the Savannahs. We interview farmers and agricultural engineers in the prefectures of Oti, Tandjouare, Dapaong, Mango, and Kara, the main groundnut-producing cities in the country. We learn about their experiences with growing groundnuts and how they are coping with the challenges associated with this crop.

The main crops grown in Togo are soybeans, maize, and groundnuts. These crops are consumed throughout the country. Groundnuts are ranked among the top three best legumes, together with cowpea and soybean.

What are the difficulties faced by farmers and the best practices recommended by experts for successful groundnut farming? In this program, we interview two experts and three farmers.

First, we talk to agricultural engineer Nassampere Kinanso, who gives us a brief overview of groundnut cultivation in Togo. Second, we will talk to three producers who share their experiences in groundnut farming addressing challenges related to drying, sorting, and shelling. Third, we will talk to Dr. Banla Essohouna Modom, a groundnut breeder.

Welcome, Mr. Engineer!

**EXP. NASSAMPERE:** Thank you for receiving me.

**HOST:** Agronomist Nassampere, can you give us a brief overview of groundnut cultivation in Togo?

**EXP. NASSAMPERE:** Thank you for giving me the opportunity to talk about this sector which is the focus of many producers in the northern regions of Togo. The groundnut crop is the "coffee-cocoa" of the small producer, because decades ago, in these northern regions, it was thanks to this crop that the producers could send their children to school, provide for their health care, and meet their family needs.

 In recent years, groundnut yields in Togo have been low. Over the past five years, average production was around 45,000 tons, and the cultivated area was close to 60,000 hectares. Yields in farming areas are low, reaching around 720 kg/ha.

 In Togo, groundnuts are the primary source of income for farming households.

**HOST:** So, groundnut cultivation has been experiencing problems in Togo, if I follow you correctly?

**EXP. NASSAMPERE:** Yes, we have to admit that this crop has been forgotten for a while, due to the non-adoption of improved varieties and the degeneration of existing groundnut varieties.

 Starting in 2016, the GIZ Green Innovation Center Program worked with partner and producers' organizations, and actors in the seed chain to revive the groundnut chain in Togo.

**HOST:** We are now interviewing Donzo Saya, a groundnut producer in Akpossou (Mango), Oti Prefecture. We are proud to have you on this farming program.

**DONZO SAYA**: Thank you for inviting me.

**HOST:** Mr. Donzo Saya, what are the difficulties you are facing with regard to drying groundnuts?

**DONZO SAYA:** Oh, there are a lot of difficulties with drying. First, we have to cover the groundnut with tarpaulins during the rainy season. Secondly, the late drying of the groundnut pods, about a week later, encourages the rapid development of pests. These pests negatively affect the quality of the groundnuts.

**HOST:** Thank you, Mr. Donzo Saya. We are also interviewing another farmer, Bondjougou Yendoumben. He is a producer of certified groundnut seeds in Togo, in the village of Tantigou-Barrage, Tone Prefecture, Savanes Region. Tell us, Bondjougou Yendoumben, about your experiences in drying, sorting and shelling groundnuts.

**BONDJOUGOU YENDOUMBEN:** To begin with, when drying, you need tarpaulins to protect the groundnuts when it is about to rain, and you must unhusk the groundnuts after the rain. This is the difficulty related to the rain. Then the sorting is simple. It involves sifting. Once there is wind, you sift and everything that is waste is removed. This is followed by shelling, which is a long process. We use workers— young people and women—to do this work in groups, and this can last for a week or two.

**HOST:** Thank you, Bondjougou Yendoumben for your contribution. We are now interviewing seed producer Compara Karsongue. Do you have any experiences to share with us on innovative drying systems that work?

**COMPARA KARSONGUE:** Indeed! The bottleneck for the ICIAR19BT variety of groundnuts, which we are currently popularizing because of many beneficial qualities, is the problem of drying.

 We chose a drying system with shelves that we raise with posts. Our drying process is similar to that of coffee and cocoa. You can see how we prepare decks (a kind of mat made with the palm tree ribs) with pickets, poles that we spread out, and with a little plastic, we dry the crops. Then, the wet soil can no longer transfer its moisture to the groundnuts. With the little heat that is reflected by the rays of the sun, our groundnuts must be dried on these decks. When they are quite dry, we store them until October or November. We have to dry the groundnuts again to decrease the moisture content.

**HOST**: What's the next step?

**COMPARA KARSONGUE:** First, we hire workers to remove the pods that are germinating on the shelves. When we finish, we place the groundnuts in a 25-kilogram bag. Then, we prepare the storage area where we’ll store the product. We put the bags on pallets. If there are no pallets, we work with our producers to place them on bricks. And we place wood on the bags. We also put a layer of ash on the bags to avoid any mould or termite attack. We avoid stacking the groundnuts against the wall. This enables the producer to control the situation because the groundnuts can be eaten by mice. At the right time, the technical services visit every groundnut producer to take samples and conduct germination tests, check the seeds, and issue a sales certificate. The certificate proves that the groundnuts are safe for consumption, and every producer must have a certificate to sell their product. This is how we proceed with the drying, sorting, and storage.

 Shelling is done manually. The producers who are involved in processing use either artisanal or industrial shelling machines.

 Manual shelling is tedious and requires financial means. For example, to shell a bag of 50 kilograms, I hire a woman who does it in three to four days. The labour costs me 2 500 F CFA.

**HOST:** Sounds like a lot of work!

**COMPARA KARSONGUE:** There you go! (LAUGHS). There’s a whole range of good practices, because when you talk about growing groundnuts, you have to use good practices to get good results.

**HOST:** Really!

**COMPARA KARSONGUE:** Yes, and then there's the shelling. This is done with meshes that we manufactured. These meshes help producers remove the pods without difficulty.

 Then we thresh with the bicycle. The bicycle is turned upside down, and we move it as if we were pedaling. We put the groundnuts through the spokes and it easily pops the pods without damaging them. We've popularized all these good practices.

**HOST:** So how many groundnut farmers in Nano have equipment for these post-harvest operations?

**COMPARA KARSONGUE:** We have the equipment. The drying and shelling platforms are available. The producers are adopting these good practices because 10 people use shelling platforms and other equipment can do the work of 50 people working manually.

 **HOST:** We learned a lot from Mr. Compara Karsongue! Now we will interview Dr. Banla. Dr. Banla is a groundnut breeder and the Head of the legumes program at the Institut Togolais de Recherches Agronomiques.

 In your opinion, in Togo, what habits do farmers have with regard to post-harvest groundnut activities?

**DOCTEUR. BANLA:** In Togo, sorting is done manually. We don't have the means to sort groundnuts mechanically. You understand that sorting by hand is tiring. But in practice, many small-scale farmers do not spend enough time sorting their groundnuts, and this has consequences, including post-harvest losses.

However, those who produce groundnuts for seed or for export are professionals, and they carefully sort.

We dry groundnuts by spreading them out on tarpaulins on well-ventilated, cemented, and sunny surfaces. When it rains during the drying process, producers cover the groundnuts with tarpaulins to prevent water from reaching the groundnut pods.

In some areas, people spread their groundnuts on the ground and the groundnuts come into contact with fungi and other pests that are present in the soil. This is one of the sources of infections such as aflatoxins.

I would like to add that a moisture content of about and preferably less than 10% or 8% must be attained for longer storage. With this moisture content, you can expect to store the dried groundnuts for a long time. But, when this level is not attained, there is a risk of rotting during storage.

Unfortunately, as you know, few producers have moisture meters to check moisture content. There are other methods, for example, when the groundnuts are stirred, they make a characteristic sound, and we can tell that we are close to the 10-13% moisture content. Many producers also know how to do this.

In summary, poor drying, sorting, and shelling practices can lead to post-harvest losses due to rot or quality problems in processed products such as oil.

**HOST:** Thank you, Dr. Banla, for providing wise guidance to our farmers. We have reached the end of our program.

To review what we have learned from our speakers, we should remember that to attain the desired quality of groundnuts, it is imperative to take the necessary measures. First: when it comes to drying, use tarpaulins or flat surfaces or, alternatively, artisanal platforms, a kind of service mat used by some farmers. Then, for shelling, it is good to do it manually if you intend to produce seeds. Shelling by hand helps to preserve the seeds without damaging them. If you are exporting or processing groundnuts for industrial purposes, it is preferable to shell them mechanically. According to the farmers and agricultural engineers we interviewed in this program, there are home-made machines designed for this purpose.

Then, by paying attention to the harvest and post-harvest and storage techniques advised by the technicians, you will have a successful groundnut harvest.

Ladies and gentlemen, groundnuts are the "coffee-cocoa" of the small farmer in northern Togo, and they continue to be a favorite legume in Togolese agriculture. The crop provides great benefits to rural families, and in this program, we reviewed the many challenges faced by producers and suggested solutions.

I am sure that this information will be of great use to you and will help you in your operations. Have a great farming season and see you soon for a new farming program!

**Acknowledgements:**

Contributed by: Aristide Somié-Abalo Kawele, Multimedia Journalist and Blogger, Sotouboua, Togo

Reviewed by: Banla Essohouna Modom, Groundnut breeder, ITRA CRASS

**Interviews:**

Banla Essohouna Modom, Groundnut breeder, ITRA CRASS, Kara Region, April 26, 2021

Nassampere Kinanso, Agricultural engineer, ProCIV, Savanes Region, April 24, 2021

Karsongue Compara, farmer, Nano-Tandjouare, Savanes Region April 24, 2021

Bondjogue Yendoumben, farmer, Tanchigou Barrage-Tone, Savanes Region, April 24, 2021

###### Donza Saya, Farmer, Akpossou–Oti, Savanes Region, April 24, 2021

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