

Pack 117

Interview

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**Managing aflatoxin contamination throughout the groundnut value chain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Notes to broadcaster

In Togo, agriculture employs 80% of the population and accounts for 40% of the country's gross domestic product. Cash crops such as coffee, cocoa, cotton, and soybeans, as well as food crops such as maize, rice, millet, sorghum, and groundnuts, are grown by farmers throughout the country. The groundnut sector plays an important role in national agricultural production. Northern Togo is the most significant production area for this crop.

But groundnuts present a great risk of contamination. Groundnut crops are often exposed to contamination by aflatoxins, which are a group of toxins produced by certain fungi, the most important of which for agriculture is *Aspergillus flavus*. *Aspergillus flavus* is present in soils and can be a potential source of danger for groundnut producers. How do groundnut farmers manage aflatoxin contamination? This is the question we will answer in this program.

This radio script will hear from three actors in the groundnut sector: two farmers who will talk about how to prevent aflatoxin contamination, and an aflatoxin specialist who will tell us about initiatives taken in Togo to combat this toxic substance.

To produce a similar program on managing aflatoxin contamination throughout the groundnut value chain, you may find inspiration in this script. If you decide to present it as part of your farming program, you could have journalists and voice actors interpret it instead of the people originally interviewed for the script. In this case, please inform your audience at the beginning of the program that these are the voices of journalists or radio hosts and not the actual participants.

If you intend to broadcast a program about managing aflatoxin contamination throughout the groundnut value chain, talk to farmers who produce agricultural crops, toxic substance specialists, and other stakeholders in the agricultural value chain.

You could ask them the following questions:

* What are the most important crop diseases in this region?
* What preventive and curative crop disease and pest control measures are available? How can farmers access these control methods? What are the details on costs, frequency of administration, etc.?

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

**Host:** In Togo, the Kara and Savanes regions are some of the most prominent groundnut-producing areas. Throughout the country, groundnuts play an important role in agricultural production. But producers are faced with aflatoxin contamination in the groundnut sector. This undermines their efforts to grow groundnuts throughout the season.

According to the United Nations Food and Agriculture Organization (FAO), aflatoxins contaminate up to 65% of groundnut crops; and an estimated 95% of children in Africa are affected by this toxin.

This radio program features three actors in the groundnut value chain. There are two farmers with whom we will discuss managing aflatoxin contamination. We will also interview a specialist on aflatoxins who will talk about how to prevent this dangerous substance.

What are aflatoxins? How do they contaminate crops? How can aflatoxins be controlled? Do producers know how to control these toxins? Is there a product or method used to control aflatoxins? Is this product or method effective? Is it accessible to producers? What is the impact of aflatoxins on human health?

In this program, we are pleased to welcome Mr. Compara Karsongue, a groundnut producer based in the Savanes region of northern Togo, in the Prefecture of Tandjouaré.

**Host:** Good morning, Mr. Karsongue!

**Compara Karsongue:** Good morning to you, host, and to all.

**Host:** We also have in our studio Mr. Saya Donzo, a groundnut producer in Dapaong, northern Togo. Mr. Donzo, welcome to this program.

**Saya Donzo:** Thank you, Sir (Madam), it's a pleasure to be with you.

**Host:** Our last guest is Dr. Ekanao Tedihou, a specialist in aflatoxin issues at the Togolese Institute of Agricultural Research, or ITRA, based in Lomé. Mr. Tedihou, thank you for accepting our invitation.

**Ekanao Tedihou:** I'm delighted to be able to share my knowledge of aflatoxin contamination in the groundnut sector on this program.

**HOST:** So, let's get to the heart of the matter. Mr. Donzo, as a groundnut producer, tell us what you know about aflatoxin.

**Saya Donzo:** Yes, I know about this disease that affects our production. It is a toxic fungus that attacks groundnut crops. Sometimes, the farmer cannot know that his groundnut crop has been struck by aflatoxin. Farmers see the abnormalities on the groundnut crop but do not know that it is a disease called aflatoxin. Fortunately, I attended an ITRA training course in collaboration with GIZ, which enlightened me about what aflatoxin is.

**Host:** What do you think about aflatoxin, Mr. Karsongue?

**Compara Karsongue:** It is a dangerous contaminant produced by moulds. It is a danger for the producer because it can destroy his entire production. Aflatoxin-contaminated groundnuts are a public hazard, especially from a health perspective.

**Host:** Mr. Donzo, how do you recognize that the groundnut crop has been contaminated with aflatoxin?

**SAYA DONZO:** First, you have to recognize that aflatoxin contamination occurs if the groundnut crop is bushy and not well-ventilated. When you uproot the groundnut from the ground and shell it, you will see that the pods are rotten and have changed colour. Secondly, if the crops are piled up and not dried quickly under good conditions, the seeds will not be suitable for consumption.

**Host:** How do you deal with aflatoxin contamination in groundnuts then?

**COMPARA KARSONGUE:** We are still at the beginning stages of managing aflatoxin contamination in Togo. Good practices to control aflatoxin before and after harvest are not yet widespread. These good practices prevent the groundnuts from being contaminated. We are in the process of imitating our colleagues in Ghana, Benin, and Senegal, who have already developed a product to combat aflatoxin that we call Aflasafe. There is a need for an integrated fight against aflatoxin.

The use of Aflasafe is one of many methods. If we want to fight against aflatoxin, we need to combine measures, including the application of a good cultivation method and the proper use of Aflasafe.

**Host:** Mr. Karsongue, is Aflasafe available to Togolese producers?

**COMPARA KARSONGUE:** For the moment, Aflasafe is being tested in Togo in the Kara and Savannah regions. As soon as the tests are conclusive, Aflasafe will be extended to the entire country with the support of the Togolese government.

**Host:** Mr. Donzo, you have over 30 years of professional experience in groundnut farming. Tell us how we could prevent aflatoxin contamination.

**SAYA DONZO:** It is important for a farmer to follow the cultivation methods developed by our research institutes. The groundnut crop must be clean and free of weeds and harvested at the right time. If you follow these good groundnut cultivation practices in addition to the use of Aflasafe, you will reduce the risk of aflatoxin contamination.

**HOST:** Mr. Karsongue, do you agree with Mr. Donzo?

**COMPARA KARSONGUE:** Obviously, good groundnut growing practices cannot be neglected. Aflasafe is meant to reinforce these good practices to reduce aflatoxin levels. Harvesting must be done properly and good dry tarps must be used for drying. The storage must be done in a well-ventilated and well-sealed warehouse with pallets or bricks with wood on top to prevent the groundnuts from being in contact with the ground. But even with all these precautions, there is still a certain level of aflatoxin in the groundnuts, so Aflasafe must be used to reduce the level of aflatoxin contamination.

**Host:** How is Aflasafe used?

**Compara Karsongue:** Aflasafe comes as a granule and is applied at 10 kilograms per hectare. The product is applied to the field between 30 and 45 days after sowing. This is done on one hectare at a time, making sure that all areas have been covered. After the application of Aflasafe, all cultivation operations in the field, including clearing, ploughing, sowing, weeding, hoeing, and ridging, are immediately stopped until it is time to harvest.

**HOST:** Thank you, gentlemen, for your explanations. We hope that our listeners, especially the farmers who are following us at the moment, have taken note. We will now come back to our specialist on aflatoxin issues. Dr. Ekanao Tedihou, you have listened to the farmers' words—now what can you tell us about aflatoxin?

**Ekanao Tedihou:** Aflatoxins are chemical substances produced by microscopic fungi, notably *Aspergillus flavus*, which is found in the soil. If the groundnut is in contact with the soil, it will be invaded by the fungi, which will produce aflatoxins. There is no way to distinguish contaminated groundnuts from healthy groundnuts just by looking at them. You can have a nice handful of groundnuts that may very well contain aflatoxins. The more immature or rotten seeds you harvest, the more exposed you are to aflatoxin contamination.

**Host:** In case of aflatoxin contamination, how could we mitigate the impact?

**Ekanao Tedihou:** Once the groundnut is harvested, what you have to do is to sort the pods or seeds to ensure that *Aspergillus flavus* does not have the opportunity to reproduce in the seed batch. All immature, moldy, dented, and/or broken seeds should be removed. Pods should be dried thoroughly before storage because the more moisture they contain, the more likely the groundnut stock will be contaminated. But once the groundnut is already contaminated, there is little chance of mitigating the risk.

**HOST:** Mr. Karsongue described Aflasafe as a complementary technique for preventing aflatoxin contamination. Is this true?

**Ekanao Tedihou:** Yes, Aflasafe is a biological means of control. It is a product developed from other strains of *Aspergillus flavus*. It is true that *Aspergillus flavus* is one of the fungi targeted and recognized as producing aflatoxins. But there are strains of *Aspergillus flavus* that are unable to produce aflatoxins. We would like to capitalize on these strains to outcompete those that are able to produce them. Aflasafe is currently being tested in Togo and depending on the results, the product will be available in Togo within a few months or within two to three years.

**Host:** How can aflatoxin contamination be prevented?

**Ekanao Tedihou:** The means of prevention begin in the field by respecting recommended cultivation methods. Also, apart from Aflasafe, which is currently being tested in Togo, it is important to use tolerant groundnut varieties, such as those with hard shells. After harvesting, you must avoid any contact of your groundnuts with the soil, dry the pods thoroughly. and then select them for storage. The reality is that we cannot totally avoid aflatoxin, we can only mitigate its impacts on our agricultural products.

**HOST:** Dr. Tidehou, one last question to conclude if you don't mind: what is the impact of aflatoxin on human health?

**Ekanao Tedihou:** Aflatoxins are toxic to humans. It is not well-known, but in some countries, it is no longer ignored because they have had epidemics and people have died. In Togo, this is not yet the case but, unfortunately, there are also chronic effects that favour the recurrence of diseases such as hepatitis, malaria, and kwashiorkor in children.

**Host:** Dear listeners, we have come to the end of our program and we thank you for your attention.

To you dear guests, thank you for your presence and participation despite your busy schedules.

Let's remember that aflatoxins do not only have a negative impact on the farmers' yield per hectare, but it are also dangerous for human health.

However, measures are being taken in Togo to sensitize producers on respecting good agricultural production practices. It is also worth mentioning that the results of the Aflasafe tests are expected to be used for a massive dissemination of control methods to producers.

This program was presented with the participation of Saya Donzo and Compara Karsongue, both of whom are agricultural producers in the north of Togo. We must also mention the specialist in aflatoxin issues, Dr. Ekanao Tedihou of the Togolese Institute of Agricultural Research, who explained the topic to us.

Thank you and see you soon for another edition.

**Acknowledgements**

Contributed by: Simon Akpagana, journalist at Agridigitale, Avépozo, Lomé, Togo

Reviewed by: Ekanao Tedihou, Aflatoxin specialist at the Togolese Institute of Agricultural Research (ITRA)

Interviews

Saya Donzo, groundnut farmer in Dapaong, Savanes Region (North Togo), May 3, 2021.

Compara Karsongue, groundnut farmer in Tandjouaré, Savanes region (North Togo), May 4 and 18, 2021.

Ekanao Tedihou, aflatoxin specialist at the Togolese Institute for Agricultural Research ITRA, May 6, 2021.

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