

# Aflatoxin-Safe Groundnut Production and Consumption in Ghana

## Community Drama Video Facilitator's Guide



## **About SPRING**

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a seven-year USAID-funded Cooperative Agreement to strengthen global and country efforts to scale up high-impact nutrition practices and policies and improve maternal and child nutrition outcomes. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, The Manoff Group, Save the Children, and the International Food Policy Research Institute.

## **Disclaimer**

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Guide



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# Introduction to the Aflatoxin Video Drama and Facilitator’s Guide

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## Background

Groundnuts are a major legume crop in the northern regions of Ghana, where they provide important nutrients for physical development. When handled improperly, however, groundnuts can be highly toxic to humans. Certain types of moulds that grow on groundnuts can produce aflatoxins—toxic compounds which can cause immune-system suppression, gastrointestinal dysfunction, growth retardation, liver disease, and cancer.

SPRING is working to reduce aflatoxin contamination in groundnuts. Our strategy is to create awareness among groundnut farmers on aflatoxin management and control through Farmer Field Schools facilitated by agriculture extension agents (AEA) from the Ministry of Food and Agriculture.

As part of those efforts, we produced a video drama on aflatoxin for dissemination in SPRING project communities. The video covers the characteristics of aflatoxin contaminated groundnuts, possible effects of their consumption, and preventive measures to reduce contamination.

## Overview of the Aflatoxin Video Drama

The video drama provides information on farming, harvesting, drying, and storage practices that expose groundnuts to aflatoxin contamination, characteristics of contaminated groundnuts, and recommended disposal methods. In the video, an agriculture extension agent is shown presenting this information during a workshop.

Two families are depicted in the video: the first, referred to here as the “adaptive family,” demonstrates the recommended practices. The second family, referred to here as the “non-adaptive family,” does not practice the recommended agronomic and consumption practices discussed during the workshop. The drama concludes with a summary of the recommended agronomic practices.

**Table 1. Video Language by District**

Language	District
Gonja	Central Gonja
Dagbani	Tolon
Likpankpaln	Mion
Kusaal	Bawku West
Gurune	Talensi



The drama was staged and recorded by five drama groups, each in one of five languages predominantly spoken in the SPRING/Ghana project districts (Table 1). The videos produced in the local languages include English subtitles for quick reference. The videos range from 18 to 27 minutes depending on the language.

## The Facilitator

The post-viewing discussion must be facilitated by individuals who are well oriented on aflatoxin management and the use of audiovisual tools. They must also have facilitation and negotiation skills to ensure consensus building, especially when discussions deviate from the main theme or objective.

## Instructions for the Facilitator

Before starting the video, please request that the community members do the following:

- Sit so that everybody can see and hear the video.
- Refrain from actions that can disturb others during the video.
- Hold all questions until the end of the video.
- Raise their hands if they wish to speak during the discussion time and ensure that one person speaks at a time. This will allow for orderly discussions.
- Agree that everyone's opinion matters. Refrain from raising their voices when disagreeing with someone or something.

## Watching and reviewing the video

The facilitator should—

- give a brief background of the project and explain the objectives of the activity before showing the video
- play the entire video from start to finish during community-wide viewing
- lead discussion when the video is finished using suggested questions below as discussion starters
- allow as many perspectives as possible to be covered in the discussion
- try to draw consensus at the end of the discussion if there are divergent points of view
- ensure that when participants leave, they have the right information or facts, are in a positive frame of mind and are closer to adopting the recommended practices.
- note action points for follow-up.

## Questions for Discussion

The discussion questions are divided into three sections: facts about aflatoxins, recommended behaviours to reduce contamination, and risks of contamination.



# Session One

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## Facts Emanating from Discussions During the Workshop

Reflecting on the workshop scene in the video, facilitate a discussion using the following questions:

1. How did the AEA explain aflatoxin? / What is aflatoxin?
2. How can aflatoxin contaminate groundnuts?
3. What are the characteristics of aflatoxin contaminated groundnuts?
4. What are the possible effects of consuming groundnuts contaminated with aflatoxin?
5. How can we prevent groundnuts from being contaminated with aflatoxin?
6. How can we prevent humans or animals from consuming groundnuts contaminated with aflatoxin?
7. Recall the best practices mentioned by the AEA when he was summarizing the best practices or mention the good practices mentioned during the workshop.

**Table 2. Facilitator's Notes, Session One**

Aflatoxin	Aflatoxin is a toxic substance which contaminates grains like maize and groundnuts on the farm, during harvesting, transportation, processing, or storage.
How can aflatoxin contaminate groundnuts?	<ul style="list-style-type: none"> <li>• Excessive rainfall can cause groundnuts to rot and become toxic if proper attention is not given to the groundnuts.</li> <li>• Weeds attract pests and diseases, and compete with groundnuts for nutrients, water, and light, increasing the risk of groundnut contamination.</li> <li>• After harvesting, if the vines are left on the farm for long, they can become moist, which exposes them to potential aflatoxin contamination.</li> <li>• If groundnuts are not properly dried and stored, high temperature may cause moisture, and groundnuts can become mouldy and toxic.</li> <li>• Excessive moisture also weakens the shells of groundnuts and increases mould growth.</li> </ul>
What are the characteristics of aflatoxin contaminated groundnuts?	They are usually dried-up, wrinkled, discoloured, mouldy and damaged. The contaminated groundnuts can also look black with some greenish decay on them. However, aflatoxin may also spread to groundnuts that look clean and normal; hence, early sorting and prevention are important.
What are the possible effects of consuming groundnuts contaminated with aflatoxin?	<ul style="list-style-type: none"> <li>• Carcinogenic (cancer-causing).</li> <li>• Immunosuppressive (suppresses immunity, especially in children).</li> <li>• Impaired growth in children (underweight and stunted, most often in children under two years).</li> <li>• Babies are at risk from lactating mothers (secreted in milk).</li> <li>• Decline in production capacity of livestock (such as production of eggs or milk).</li> </ul>

<p>How can we prevent groundnuts from being contaminated with aflatoxin?</p>	<ul style="list-style-type: none"> <li>● Do not leave groundnuts on the farm after harvesting for too long. Excessive rainfall can cause the groundnuts to become rotten and toxic.</li> <li>● Do not dry groundnuts on the bare ground because it is a major source of mould contamination.</li> <li>● Sweep compound before drying the nuts on cemented dry surface.</li> <li>● If the compound is not cemented, dry groundnuts on sheets like tarpaulin, polythene, or raised platforms.</li> </ul>
<p>How can we prevent humans or animals from consuming groundnuts contaminated with aflatoxin?</p>	<ul style="list-style-type: none"> <li>● Before consuming groundnuts, sort the good from the bad.</li> <li>● After sorting the good groundnuts from the bad ones, bury or burn the rotten, mouldy or bad groundnuts.</li> </ul>
<p>Recall the best practices mentioned by the AEA</p>	<ul style="list-style-type: none"> <li>● Harvest groundnuts immediately when they mature. Do not keep groundnuts for long on the farm or they will become contaminated by moisture.</li> <li>● Dry groundnuts immediately after harvesting.</li> <li>● Always dry groundnuts away from bare soil, such as on cement floor or tarpaulin, and turn to ensure that they dry evenly.</li> <li>● Use new/clean polybags or sacks to store the groundnuts.</li> <li>● Do not mix wet and dry groundnuts together during storage.</li> <li>● Do not store wet groundnuts in tightly closed bags.</li> <li>● Do not heap groundnuts in shells on the floor in storage structures.</li> <li>● Maintain well-ventilated rooms to prevent groundnuts from becoming moist during storage.</li> <li>● Do not place sacks of groundnuts directly on the storage floor, but on raised platforms/pallets.</li> <li>● Do not place groundnuts stored in bags against the wall. Leave space so that you can occasionally inspect the stored groundnuts.</li> <li>● Control insects and rodents during storage. Do not heap groundnuts in shells on the floor inside storage structures.</li> <li>● Do not expose groundnuts to moisture during transporting and marketing.</li> <li>● Remove bad groundnuts and bury or burn them. <u>Please Note: Burning is the preferred form of disposal.</u></li> </ul>

## Session Two

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### Demonstration of Recommended Behaviours by Model Family and Possible Outcomes

1. Review the recommended practices you observed being practiced by the “adaptive” (first) family.
2. What are the possible benefits of ensuring that groundnuts are not contaminated with aflatoxins?
3. What are the constraints or challenges that prevent families from fully practicing the recommended practices?
4. How can we address those constraints or challenges to ensure that all households practice the recommended behaviours?

**Table 3. Facilitator's Notes, Session Two**

Good or recommended practices demonstrated by the adaptive (first) family and associates	<ul style="list-style-type: none"><li>• Separating bad groundnuts from good ones.</li><li>• Drying groundnuts on polythene in the compound.</li><li>• Burying the contaminated or bad groundnuts very deep to ensure children and animals do not uproot the bad groundnuts. <u>Please note : Burning is the preferred method of disposing of bad groundnuts.</u></li><li>• Involving the entire family in the sorting, drying, and disposal of the bad nuts.</li></ul>
The possible benefits of ensuring that groundnuts are not contaminated by aflatoxin	<ul style="list-style-type: none"><li>• Grains that are not contaminated look nice and thus attract good market prices.</li><li>• Higher prices for groundnut products, such as groundnut paste, groundnut oil, and “dawadawa.”</li><li>• Good groundnuts provide health benefits for families.</li></ul>

## Session Three

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### Behaviours that Increase the Risk of Aflatoxin Contamination

1. What are some of the bad practices you observed in the second (non-adaptive) family?
2. What are the possible consequences of the second family's failure to abide by the recommended practices?
3. Why do you think the second family refused to follow the recommended practices despite having attended the workshop?
4. How can we ensure families practice the recommendations in the video drama?

**Table 4. Facilitator's Notes, Session Three**

Mention the bad practices you observed being practiced by the second family.	<ul style="list-style-type: none"><li>• Drying of groundnuts on the bare floor or in the sand. There was moisture on the floor where the groundnuts were dried.</li><li>• The wife refused to sort the good groundnuts from the bad ones before preparing groundnut oil and paste.</li></ul>
What are the possible consequences of the second family's failure to adopt the recommended practices?	<ul style="list-style-type: none"><li>• Low market prices for their groundnuts because the grains were not sorted.</li><li>• Consuming bad groundnuts can harm the health of household members.</li></ul>

## Wrap Up and Conclusion

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1. Recap: Ask the audience to restate the recommended practices to reduce the risk of aflatoxin contamination in groundnuts.
2. What can various family members (fathers, mothers, children) do to ensure that the recommended practices are followed fully?
3. Restate the key messages and inform the audience that SPRING and its partners will be conducting follow-up visits to check on their progress.



# Annex 1: Orientation for Facilitators

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## Time Table

### Orientation for Facilitators for the Aflatoxin Video Drama

TIME	ACTIVITY
8:30–9:00 am	Welcome, Self-Introduction, Logistics, Objectives, Ground Rules
9:00–9:30 am	Overview of SPRING/Ghana Project <ul style="list-style-type: none"> <li>• SPRING/Ghana Programme Objectives</li> <li>• Role of SBCC in the project</li> </ul>
9:30–10:00 am	Differences between Lecture (Didactic) & Facilitation (Participatory) Methods of Engagement Qualities of a Good Facilitator <i>Breakaway Group Work</i>
<b>10:00–10:20 am</b>	<b>SNACK</b>
10:20–11:00 am	Plenary discussion of group work
11:00–11:45 am	<b>Overview of Aflatoxin Video Drama and Discussion Guide</b> Description of video drama and its uses Use of Discussion Guide during community screening sessions
11:45am–12:45 pm	Screening of aflatoxin video drama
<b>12:45–1:45 pm</b>	<b>LUNCH</b>
1: 45–3:00 pm	Discuss the three sections of the video documentary
3:00–3:20 pm	<b>SNACK</b>
3:20–4:20 pm	Discuss data collection tools
<b>4:20–5:00 pm</b>	<b>Way Forward</b> <ul style="list-style-type: none"> <li>• Discussion of time table for community viewing</li> <li>• Discussion of roles of partners in the community-level implementation</li> <li>• Discussion of logistics needed and available for the implementation</li> </ul>





## Annex 2: Data Collection Form for Facilitators

Facilitators will use this form to collect information on video viewing and discussion sessions.

<b>COMMUNITY WIDE VIDEO DATA COLLECTION TOOL</b>			
<b>AFLATOXIN AWARENESS VIDEO DRAMA</b>			
<b>Section 1: Background Information</b>			
<b>Region:</b>		<b>District:</b>	
<b>Community:</b>		<b>Target Group:</b>	
<b>Date:</b>			
<b>Section 2: Description of Population Reached</b>			
<b>By Sex</b>	<b>Total No.</b>		
Males (5 years and above)			
Female (5 years and above)			
<b>Overall Total</b>			
<b>Section 3. Summary of actions stated by family members on how to ensure that the recommended practices are followed fully</b>			
<b>No.</b>	<b>Women</b>	<b>Men</b>	<b>Children</b>

**REMARKS**

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**Facilitation Team Members**

<b>Name</b>	<b>Organization/Designation</b>	<b>Date</b>	<b>Signature</b>

## Annex 3: Observation Form for Facilitators

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Facilitators will use this form when conducting follow-up interviews with community members who participated in the video screening and discussion.

### AFLATOXIN VIDEO DRAMA FOLLOW-UP INTERVIEW

1. Date:

2. District:

3. Community:

4. Name of Respondent:

5. Age:

6. Sex (M/F)

Questions		Answers
7.	Did you watch the aflatoxin community video drama by SPRING?	Yes.....1 No.....2
8.	Can you mention three things you remember from the video?	1. _____ 2. _____ 3. _____
9.	Have you practiced, started practicing, or do you intend to practice any of the recommended groundnut production and consumption practices? If yes, which practices?	1. Harvest mature groundnuts immediately .....A 2. Do not leave groundnuts on the farm for too long after uprooting.....B 3. Do not dry groundnuts on bare ground .....C 4. Place sacks on raised platforms.....D 5. Sort good from bad groundnuts before storage or processing.....E

		6. Burn mouldy, rotten or bad groundnuts after sorting.....F
11.	Would you like to share the lessons from the video with others (peer group or family)?	1. Yes.....1 2. No.....2
12.	Mention three things you liked about the video drama.	1. _____ 2. _____ 3. _____
13.	Mention three things that could improve the video drama.	1. _____ 2. _____ 3. _____



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