

aflasafe™



# Aflatoxin kills!

Aflasafe protects your maize and groundnuts from this deadly poison

## What is Aflasafe, and why should I use it?

A natural product that reduces aflatoxin in maize and groundnuts. It's about your health and wealth: Aflasafe protects you, your family and community through aflatoxin-safe food. Aflasafe also means more profits when your produce meets local food-industry as well as international aflatoxin standards.

Aflasafe is mainly roasted sterile sorghum (99.7% of the product), coated with four atoxigenic (ie, non-poison-producing) types of

*Aspergillus flavus* native to Nigeria. To avoid confusion with regular sorghum, Aflasafe is dyed blue using food colour.

Aflasafe was developed by the International Institute of Tropical Agriculture (IITA) in collaboration with the United States Department of Agriculture – Agricultural Research Service, University of Bonn (Germany), and University of Ibadan.

## What is aflatoxin?

A natural poison from some types of the *Aspergillus* fungus, primarily *Aspergillus flavus*. This fungus is found in soil and dead or decaying plants. It infects crops from flowering until maturity. Maize and groundnuts are particularly susceptible. You cannot see, smell or taste aflatoxin. Yet both people and animals are very

sensitive to aflatoxin, however minute. But as mentioned above, nature also provides non-toxic types of *Aspergillus flavus*. When Aflasafe is applied correctly, these friendly types push out the poison producers. And that is how Aflasafe works. A natural product working with nature to protect our food.

Aflasafe is very easy to use, as you will see from the instructions that follow.

Cover Photos – March 2017: Dan' Asabe broadcasting Aflasafe on his maize at Dorawan Salau Village, Garum Malam LGA, Kano State, Northern Nigeria. Photos – IITA, main: OO Bode; inset: A Ortega-Beltrán

## Instructions

1. Use only as directed.
2. Follow standard agronomic practices recommended in your area to grow your crop.
3. Before applying Aflasafe, your fields should be weeded and ridged, fertilizer applied and, all other cultural practices carried out to avoid stepping on the product after application.
4. DO NOT CARRY OUT ANY OPERATION THAT WILL BURY Aflasafe UNDER THE SOIL after application. Ensure that Aflasafe stays on the soil surface.
5. Measure the area of the field where the product will be applied.
6. For **maize**, broadcast Aflasafe by hand when the crop is waist-high, which is 2 to 3 weeks before flowering, at the rate of 10 kilos per hectare.
7. For **groundnuts**, broadcast Aflasafe 30–35 days after planting, which is about 2 to 3 weeks before flowering, by side-dressing along the rows on the soil surface at the rate of 10 kilos per hectare.
8. Ensure that Aflasafe is distributed uniformly in the field during application.
9. As far as possible, apply Aflasafe after rains, when rains are forecasted, or when the soil is wet. When there is adequate moisture in the soil, the atoxigenic strains grow rapidly on the sorghum, which serves as both their carrier and food.
10. Do not worry if ants carry the Aflasafe grains into their nests. They bring back the grains on the soil surface after 1 to 3 days. This does not in any way compromise Aflasafe's quality or effectiveness.
11. Aflasafe does not harm chickens, guinea fowls, birds or wildlife, which may sometimes pick up Aflasafe grains. Neither does this affect Aflasafe's effectiveness.
12. Five to seven days after applying Aflasafe, visit the field and observe Aflasafe's colour. A greenish growth should be visible on some or all of it if soil moisture is adequate. If there is no greenish growth, return to the field after 3 to 5 days and check again.
13. Follow good harvest and postharvest practices.

# Dos and don'ts

## Hazards and precautions

- Do not apply as a tank mixture with fertilisers, insecticides, or fungicides.
- Apply Aflasafe only when the possibility for drift to adjacent potentially sensitive areas (eg, residential areas, water bodies, known habitat for threatened or endangered species, non-target crops) is minimal.
- DO NOT eat, drink or smoke while handling Aflasafe.
- Wash hands thoroughly with soap and water after use and before eating, smoking or drinking.

## Storage and disposal

DO NOT CONTAMINATE WATER, FOOD OR ANIMAL FEED BY STORAGE AND DISPOSAL

- **Storage:** Store Aflasafe in a dry place. Do not expose to relative humidity greater than 80% prior to use. Aflasafe contains living organisms that must be alive to work. Do not store under extreme conditions. Do not expose to temperatures above 50°C.
- **Disposal:** Use all material in the container, applied according to instructions. If you still have leftovers, offer remaining Aflasafe to a waste disposal facility or pesticide disposal programme (often such programmes are run by state or local governments or by industry).
- **Container handling:** Do not reuse or refill container. Offer bags for recycling if available or dispose empty bag in a sanitary landfill or by incineration.

ENSURE YOU READ AND FOLLOW ALL THE CAUTIONARY INFORMATION AND INSTRUCTIONS ON THE PACK

**IMPORTANT NOTE:** For Aflasafe to work, you must fully follow all the instructions, particularly when to apply Aflasafe: **correct application at the correct time is a must.**



**aflasafe**™



To order Aflasafe to treat your crops, or to buy Aflasafe-treated crops, contact IITA's Business Incubation Platform: SMS: +234 (0) 803 978 4232; email: IITABIP@cgjar.org