



Aflasafe GH02



Aflatoxin kills!



Aflasafe protects
your groundnuts,
maize and sorghum
from this deadly
poison.



What is Aflasafe, why should I use it, and who made it?

Aflasafe is a natural product that reduces aflatoxin in groundnuts, maize and sorghum. It's about your health and wealth: Aflasafe protects you, your family and community by enabling you to grow 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 Ghana. To avoid confusion with sorghum to eat, Aflasafe is dyed blue using food colour.

In and for Ghana, Aflasafe was developed by the International Institute of Tropical Agriculture (IITA) in collaboration with the United States Department of Agriculture – Agricultural Research Service, Ghana's Ministry of Food and Agriculture, and Kwame Nkrumah University of Science and Technology.

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 sowing until maturity. Groundnuts, maize and sorghum 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: *Flashback to October 2015: Akua Koduah applying Aflasafe at her farm in Sekruwa, Mampong Municipality, Ashanti, Ghana. She was a keen participant in the 2015 participatory field tests with farmers on Aflasafe's efficiency and effectiveness. Asante-Mampong, in Ghana's Humid Forest zone, is an aflatoxin hotspot, more so during the major cropping season. Photos – IITA, main: D Agbetiamah*

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, fertiliser applied and all other agronomic practices carried out to avoid burying Aflasafe beneath the soil.
4. Measure the area of the field where the product will be applied.
5. For **groundnuts**, broadcast Aflasafe 30–35 days after planting, which is about 2–3 weeks before flowering, by side-dressing along the rows on the soil surface at the rate of 10 kilos per hectare.
6. For **maize**, broadcast Aflasafe by hand when the crop is waist-high, which is 2–3 weeks before tassels appear (also known as ‘flowering’), at the rate of 10 kilos per hectare.
7. For **sorghum**, broadcast Aflasafe 2–3 weeks before booting, which is 40–45 days after planting when the crop is between waist- and shoulder-high, depending on the variety.
8. For application using a tractor, calibrate the equipment to disperse at a dose of 10 kilos per hectare or 4 kilos per acre.
9. Ensure that Aflasafe is distributed evenly in the field during application. So, toss the product as uniformly as possible.
10. The spores in the Aflasafe require moisture to grow. Therefore, apply Aflasafe immediately after rains or when rains are expected or when the soil is wet, or if possible irrigate field after application.
11. Ensure that Aflasafe stays on the soil surface. For Aflasafe to work, it **MUST** be above ground. Therefore, **DO NOT CARRY OUT ANY OPERATION THAT WILL BURY AFLASAFE IN THE SOIL** after application. Such operations should all be done in Step 3, so that Aflasafe application is the final agronomic operation that you do.
12. Do not worry if ants carry the Aflasafe grains into their nests. They bring back the grains on the soil surface after one to three days. This does not in any way compromise Aflasafe’s quality or effectiveness.
13. Aflasafe does not harm chickens, guinea fowls, birds or wildlife, which may sometimes pick up Aflasafe grains. Neither does this affect Aflasafe’s effectiveness.
14. 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 three to five days and check again.
15. Follow good harvest and postharvest practices.



Dos and don'ts Hazards and precautions

- DO NOT apply together with fertilisers, insecticides, or fungicides.
- DO 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.
- DO 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 bags. 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.



Leaflet produced by IITA's Aflasafe Technology Transfer and Commercialisation initiative (ATTC)

To order Aflasafe to treat your crops, or to buy Aflasafe-treated crops, call Macrofertil Ghana Limited (importer) on 054 432 50 60 or 024 544 30 12 for information on your nearest distributor. Or visit our website, www.aflasafe.com 'Aflasafe where I am' page, and click on 'Ghana'

Mar 2019

