



PHOTO: IITA

FLAGSHIP 3 | Food Safety

Highlight 2: Technology Moves Forward in Senegal and Gambia to Combat Aflatoxin in Food

A poison you cannot see, taste, or smell, aflatoxins are a serious “silent” threat across Africa. Produced by molds that widely contaminate foods and feeds, particularly key staple crops such as maize and groundnuts, they affect health, incomes, and livelihoods. The health effects are immense: aflatoxins cause an estimated 30 percent of liver cancers diagnosed in Africa and are associated with child stunting and immunosuppression. Financial impacts can also be staggering, as crops that test too high for levels of aflatoxins cannot be sold commercially for human or animal consumption. Smallholder farmers, who are often already economically vulnerable, are particularly hard hit when their crops are contaminated.

Over the last several years, research from the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH), carried out by the International Institute of Tropical Agriculture (IITA), the International Livestock Research Institute (ILRI), and the International Food Policy Research Institute (IFPRI), have sought to control and mitigate aflatoxins and to draw more attention to viable solutions to this problem.

One solution is the biocontrol product generically referred to as aflasafe®. IITA, working with the US Department of Agriculture's Agricultural Research Service (USDA-ARS) and national institutions in Africa, has successfully improved the technology, making it possible to reduce aflatoxin contamination in groundnuts and maize by 80 percent or more. Supported by the Partnership for Aflatoxin Control in Africa (PACA), as well as A4NH, other donors, and national governments, the team developed ambitious plans to expand aflasafe to 14 countries in Africa. This process includes conducting an initial risk assessment, developing and registering products, designing efficient manufacturing prototypes, and engaging in strategic manufacturing and distribution partnerships until partners are prepared to take over.

This last stage, working with government and private-sector partners, is crucial to ensuring widespread access to the technology. For example, IITA developed Aflasafe SNO1™, specific to Senegal and Gambia, in collaboration with USDA-ARS and local and international research and development partners.¹ In September 2017, IITA signed a Technology Transfer and Licensing Agreement with BAMTAARE SA to bring this capacity to Senegal and Gambia. The agreement establishes a plan for local manufacture, distribution, and sale of Aflasafe SNO1, with full ownership, operation, and management by BAMTAARE and technical support from IITA. The company expects to begin production in 2018 and to distribute 1,300 metric tons of Aflasafe in Senegal and Gambia by the fifth year, translating into 130,000 hectares of Aflasafe-protected groundnuts and maize.

“Our vision of success is that every maize and groundnut farmer have access to Aflasafe where and when needed,” said Abdou Konlambigue, Managing Director of IITA's Aflasafe Technology Transfer and Commercialisation Project. “We are very proud to partner with BAMTAARE to bring Aflasafe closer to farmers in Senegal and The Gambia. This is the first license granted to a private company in Africa, and we are fully committed to make it successful.”

“Today marks a turning point in our policy to diversify agri-business,” said Ahmed Bachir Diop, CEO, BAMTAARE Services SA, and Director General, SODEFITEX. “We are very pleased with the partnership that we have sealed today with IITA.”

¹ Other partners included The Gambia Groundnut Corporation (now the National Food Security Processing and Marketing Corporation); the National Agricultural Research Institute of The Gambia; the Crop Protection Division; La Direction de la Protection des Végétaux du Sénégal, L'Université de Thiès; and the African Agricultural Technology Foundation.

Aflasafe R&D in Africa – Where we are

