



## Reducing aflatoxin contamination in maize in Burkina Faso

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This project aimed to reduce the level of aflatoxin contamination in maize and its by-products to improve Burkina Faso's market access. This was to be achieved through the adoption and dissemination of an integrated approach (combination of biological control and good practices) to improve the safety and commercial value of products. It also focused on building national capacity and strengthening coordination between public and private stakeholders in the maize sector, contributing to an increase in producer income and improvements in food security and consumer health.

**STDF/PG/566**

**Status**

Completed

**Start Date**

01/05/2019

**End Date**

30/09/2022

**Project Value (US\$)**

\$845,862

**STDF Contribution (US\$)**

\$544,402

**Beneficiaries**

Burkina Faso

**Implementing Entities**

Unité nationale de mise en œuvre du Cadre intégré renforcé, Burkina Faso

**Partners**

Le Ministère en charge de l'Agriculture et des Aménagements Hydrauliques

Le Ministère en charge du Commerce

La Confédération Paysanne du Faso (CPF)

Le Laboratoire National de Santé Publique (LNSP)

L'Agence Burkinabè de Normalisation, de la Métrologie et de la Qualité (ABNORM)

Le Programme Alimentaire Mondial (PAM)

**Background**

About 86% of Burkina Faso's population derives income from the agricultural sector. Maize production is one of the country's major crop growing activities. However, locally produced maize is frequently contaminated by aflatoxins, particularly aflatoxin B1. This is linked to limited capacity to implement good practices in production, harvesting and post-harvesting. Urgent action is needed to control and manage contamination, as it may result in a public health hazard and loss of income.

In addition to being sold on the local market, maize is exported to neighboring countries by cereal exporters and other sector stakeholders. Institutions active in the field of food security, such as the World Food Program (WFP), obtain their maize supplies from producers in Burkina Faso. However, there have been instances where the WFP has refused large quantities of maize from Burkina Faso due to high levels of aflatoxin contamination.

The STDF project applied an innovative, holistic and integrated approach for the control and reduction of aflatoxin contamination. In doing so, it strengthened the adaptation and management capacities of key stakeholders, which include producers, farmer associations, and local public and private support services. It also provides an opportunity for the government, producer organizations, and technical and financial partners to coordinate their actions as part of a common approach to address this threat, which continues to take on alarming proportions. The project was developed through an STDF [PPG](#), which was used to facilitate local research and consultations between 2017 and 2018.

## **Results**

### ***Burkina Faso's capacity to meet safety requirements for maize strengthened***

The project raised awareness on the aflatoxin threat and the proposed integrated approach to reduce its proliferation. Public and private actors in the maize sector had the opportunity to work together and coordinate their actions. The project strengthened their understanding on how biological control and good practices can be integrated and implemented along the value chain to reduce contamination. This included the use of "Aflasafe BF01", a biological control product customised for Burkina Faso and approved by the Sahelian Pesticides Committee in 2017.

Extension officers received training through decentralized workshops. The project also provided training for laboratory technicians and public officials responsible for conducting inspections to ensure that maize complies with market access requirements. Activities were also planned to build the capacity of inspectors and technicians on the use of aflatoxin rapid detection kits. Furthermore, sampling and analysis protocols were developed, harmonized and standardized at the national level.

### ***Producers, collectors, wholesalers and traders informed and trained on the integrated approach for the control of aflatoxin contamination***

The activities conducted as part of this project covered the main maize producing areas in the country. The views of producers, collectors, wholesalers, traders and competent local authorities regarding production, drying and storage practices were examined through surveys. The participatory "Rapid Rural Appraisal" method was adopted in order to compile feedback.

The project also provided demonstrations from the field through to the storage and marketing stages. These practical demonstrations consisted of tests on maize crops in the field using Aflasafe BF01. There were also demonstrations of grain drying and storage methods to avoid contamination at these critical stages of the value chain.

Guides in French and local languages were developed and disseminated. Awareness raising sessions were organized in villages for key stakeholders (producers, collectors, processors). To ensure sustainability, local authorities, agricultural extension officers and agricultural NGOs were involved. These actions were undertaken in collaboration with the WFP, WHO, and national and regional technical partners.

### ***Market access for safe maize promoted and the income of producers increased***

These contributed to a significant reduction in aflatoxin levels in accordance with international standards, thus enabled producers to meet market demands, in particular those of NGOs and other stakeholders involved in humanitarian assistance and food security. This led to a rise in the income of stakeholders in the maize sector, including women engaged in the collection, storage and marketing of maize as well as regional trade.