

Reduction of aflatoxin contamination in maize in Burkina Faso

This project aims to reduce the level of aflatoxin contamination in maize and its by-products in Burkina Faso to improve market access. It involves the adoption and dissemination of an integrated approach (combination of biological control and good practices) to improve the safety and commercial value of the product. It will also focus on building national capacity and strengthening coordination between public and private stakeholders in the maize sector. These combined efforts are expected to contribute to an increase in producer income and improvements in food security and consumer health.

STDF/PG/566

Status

On-going

Start Date

01/05/2019

End Date

30/04/2022

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

Burkina Faso is largely an agricultural country, with around 86% of the population deriving its income from the agricultural sector. Maize production is one of the country's major crop growing activities. Unfortunately, locally produced maize is frequently contaminated by aflatoxins (particularly aflatoxin B1). This contamination is linked to a limited capacity regarding good practices related to production, harvesting and post harvesting, which leads to the growth of certain types of mould that produce aflatoxins. Urgent action is required to control and manage this contamination issue, as it may result in a public health hazard and a loss of income throughout the value chain.

Maize is increasingly sold on the local market meeting the demand of consumers, agri-food processors and the animal feed sector. It is also exported to neighbouring countries by cereal exporters and other sector stakeholders. Institutions active in the field of food security, such as the World Food Programme (WFP), obtain

their supplies of maize from producers in Burkina Faso. There have been instances where the WFP has refused large quantities of maize from Burkina Faso due to high levels of aflatoxin contamination.

Against that background, the project will apply an innovative, holistic and integrated approach for the control and reduction of aflatoxin contamination. In so doing, it will strengthen the adaptation and management capacities of the main stakeholders in the value chain, including 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.

Expected Results

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

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

Extension officers will receive training through decentralized workshops. The project also aims to provide training for laboratory technicians and public officials responsible for conducting inspections to ensure that maize complies with market access requirements. Activities are also planned to build the capacity of inspectors and technicians on the use of aflatoxin rapid detection kits. Furthermore, sampling and analysis protocols will be 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 will cover 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 will be examined through surveys. The participatory "Rapid Rural Appraisal" method will be adopted in order to compile feedback.

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

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

Market access for safe maize will be promoted and the income of producers increased

It is envisaged that these activities will contribute to a significant reduction in aflatoxin levels in accordance with international standards, thus enabling producers to meet market demands, in particular those of NGOs and other stakeholders involved in humanitarian assistance and food security. This will lead 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.