

## Biological control product for controlling aflatoxin contamination in maize grain

**Project Title:** P1245 - Development of a bacterial biological treatment agent to control aflatoxin contamination (caused by *Aspergillus flavus*) in maize

**Description of the innovation:** We are in the process of development of biological control methods of controlling aflatoxin contamination in maize grain. These are certain bacterial strains that reduce the development of some fungal species that produce substances (secondary metabolites) that are very toxic to humans and animals. Aflatoxin contamination of food is especially important in developing countries. Our preliminary results are very promising and we need to repeat the experiment one more year to prove the concept.

**New Innovation:** No

**Stage of innovation:** Stage 1: discovery/proof of concept (PC - end of research phase)

**Innovation type:** Genetic (varieties and breeds)

**Geographic Scope:** Global

**Number of individual improved lines/varieties:** 1

**Description of Stage reached:** We are currently in the proof-of-concept phase and the preliminary results show that the biological control method that we are developing for aflatoxin control in maize grain is as effective (if not more) as conventional chemical control methods. We need to one more year to complete the study.

**Name of lead organization/entity to take innovation to this stage:** CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

**Names of top five contributing organizations/entities to this stage:**

- University of Guelph

**Milestones:** No milestones associated

**Sub-IDs:**

**Contributing Centers/PPA partners:**

**Evidence link:**

- <https://tinyurl.com/y7rekzcr>

**Deliverables associated:**

- D6739 - A bacterial control agent tested for the first year (of two years) for its efficacy to control the mycotoxin production in maize. (**Not disseminated**)

**Contributing CRPs/Platforms:**

- Maize - Maize