



Aflatoxin mitigation through education, intervention, and policy in Rwandan dairy products

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Principal Investigator

- Dr. Dirk E. Maier, Iowa State University

Co-PI and Collaborators

- Dr. Kizito Nishimwe, University of Rwanda
- Dr. Erin Bowers, Iowa State University

Objectives

1. Exploring the potential use of aflatoxin binders/sequesters in feeds for reducing aflatoxin excretion in milk.
2. Hazard analysis, prevention and mitigation strategies for Rwandan dairy feeds.
3. Educate consumers and dairy farmers about aflatoxin contamination and prevention in dairy feed and milk.

Aflatoxin Mitigation through Education, Intervention, and Policy in Rwanda

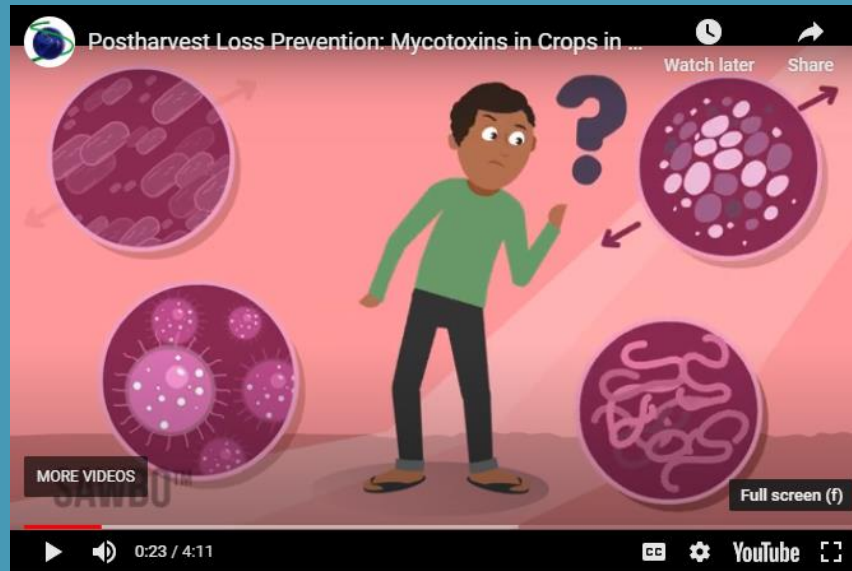
Kizito Nishimwe, Erin Bowers, Dirk E. Maier

Background

- Aflatoxins are fungal metabolites that contaminate agricultural products (especially maize) under favorable crop growing conditions
- Aflatoxins are highly toxic, mutagenic and carcinogenic to animals and humans that consume aflatoxin-contaminated foods and feeds
- Aflatoxin from contaminated feeds fed to dairy cows were excreted in milk at 0.89 ± 1.64 ug/kg

Once Covid-19 restrictions are lifted, we will explore the potential use of aflatoxin binders in feeds on dairy farms for reducing aflatoxin excretion in milk.

Translated this English-narrated video to combat aflatoxins in commodities into a Kinyarwanda-narrated video (in collaboration with SAWBO)



<https://sawbo-animations.org/1001>
<https://youtu.be/HXindhBQebl> (English version)
<https://youtu.be/24UGPon2YEg> (Kinyarwanda)

Aflatoxin binders

- Are substances that bind to aflatoxins and hinder their absorption in the animal digestive system
- Decrease aflatoxin bioavailability
- Mitigate aflatoxin M1 secretion in milk

Methodology

- Distribution of pelleted dairy feeds containing binders to 3 groups:
 - Group I: Control
 - Group II: Binders only
 - Group III: Binders + Education
- Period: 6 months
- Feed and milk samples collected in 4 rounds and analyzed for aflatoxins and aflatoxin M1 in milk