

Feed the Future Innovation Lab for Livestock Systems research project:

Toxic Risk in Burkina Faso

Milk and dairy products are a key source of essential nutrients, but they are also greatly vulnerable to contamination with microorganisms and chemicals that can cause illness in people. The high levels of aflatoxins in milk reported in various African countries, with their carcinogenic effect and suggested association with chronic malnutrition in children, show the importance of understanding the amount of such hazards in dairy products and identifying steps along the dairy supply chain where such levels can be reduced.



Credit: Steve Mann/ILRI

Objectives

- Map the dairy value chains operating in rural areas in Burkina Faso and in peri-urban Ouagadougou.
- Determine the presence of milk-borne pathogens in milk consumed in rural and urban settings.
- Assess the aflatoxin contamination in dairy cattle feed and milk in dairy production systems.
- Estimate the aflatoxin-related health risk for rural and urban consumers of liquid milk, with a focus on children under 5 years, and pregnant and lactating women.

Expected Outcomes

The project will generate primary evidence on the aflatoxin contamination levels in feed and milk in peri-urban and rural dairy systems in Burkina Faso and their health implications for dairy consumers. It will also provide improved understanding of the rural and urban dairy value chains operating in the country and of points of leverage for improved milk quality and safety.

Research Approach

The project will survey traditional rural extensive and semi-intensive peri-urban dairy systems in Burkina Faso. The main dairy value chains will be mapped to describe the milk supply processes and actors. Samples of animal feeds and milk will be collected in dairy farms and tested for presence of aflatoxins and two milk-borne pathogens to determine the prevalence of these health hazards in both value chains. Lastly, quantitative risk assessment will be used to estimate the aflatoxin-related health risk associated with liquid milk intake.

- Burkina Faso has a large cattle population, but dairy production and per capita dairy consumption are among the lowest in sub-Saharan Africa.
- The project contributes to the country's plans to grow and modernize dairy production and marketing.
- Aflatoxin M1 and bacteria are health hazards whose levels in milk should be monitored and contained.

Quick Facts

- Duration: 1 year
- Locations: Sahel Region and Ouagadougou, Burkina Faso
- Full project title: Aflatoxin-related health risk for milk consumers in rural and peri-urban areas in Burkina Faso

Contacts and Key Partners

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