

International Livestock Research Institute

Report of the *Growing with Dairy* stakeholder meeting and  
*MoreMilk* project launch

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## Abbreviations and acronyms

ILRI	International Livestock Research Institute
KDB	Kenya Dairy Board
KDTA	Kenya Dairy Traders' Association
TCM	training, certification and marketing

# Acknowledgements

We are grateful to the management of the International Livestock Research Institute (ILRI) for providing an enabling environment to carry out the *MyDairy* and *MoreMilk* research projects. We sincerely thank the Ministry of Foreign Affairs, Finland for funding the *MyDairy* project under the FoodAfrica program (contract no. 29891501) and the Bill & Melinda Gates Foundation and the United Kingdom Department for International Development for funding the *MoreMilk* project (project no. OPP1156625). We also thank Shelly Sundberg, Senior Program Officer at the Bill & Melinda Gates Foundation, and Ramses Malaty, Deputy Head of Mission at the Embassy of Finland in Kenya, for their participation and opening remarks at the workshop.

We are grateful to the respective local and international partners who have been and are important in the execution of these projects. Natural Resources Institute Finland and the University of Nairobi were close partners in the *MyDairy* project, and the International Food Policy Research Institute, the International Institute for Environment and Development, Emory University and Sokoine University of Agriculture are partners in the *MoreMilk* project.

## Executive summary

On 9 March 2018, the International Livestock Research Institute (ILRI) held a stakeholder workshop to present results and plans of two dairy sector-related research projects in Kenya: *Measuring and mitigating the risk of mycotoxins in maize and dairy products for poor consumers in Kenya* (MyDairy) and *MoreMilk: making the most of milk* (MoreMilk). In the meeting, the principal investigators of the respective projects presented the ongoing project activities that are exploring different interventions to improve the dairy sector in Kenya and the health and economic benefits that Kenyans derive from the sector.

The meeting provided an opportunity to disseminate research findings, receive feedback on ongoing and planned activities and align the project objectives with the needs of public and private actors in the dairy sector in Kenya.

The *MyDairy* project was funded by the Ministry of Foreign Affairs, Finland and implemented between 2012 and 2018 in two phases: an initial four-year phase followed by a second phase of 1.5 years. The project aimed at mitigating the risks of aflatoxins in the dairy value chain in Kenya.

The *MoreMilk* project is a five-year initiative (2016–2021) funded by the Bill & Melinda Gates Foundation and the United Kingdom Department for International Development that works to upgrade milk hygiene and quality standards in the informal dairy value chain and maximize economic, health and nutrition benefits, especially for the poorest communities in Nairobi.

The workshop brought together 33 participants representing different stakeholder groups in Kenya's dairy sector, including industry, government, consumers, academia and development organizations. This report presents the proceedings of the workshop and summarizes the plenary discussions on both projects around six questions. It also includes links to the presentations and the list of participants.

# Background

The *Growing with Dairy* workshop was organized with two aims in mind: (i) to disseminate results from the *MyDairy* project funded by the Ministry of Foreign Affairs, Finland under the FoodAfrica program and executed by ILRI and partners (National Resources Institute Finland, the University of Nairobi and the International Food Policy Research Institute) and (ii) to launch the *MoreMilk* project (<https://www.ilri.org/node/53709>), a new research initiative led by ILRI and funded by the Bill & Melinda Gates Foundation and the United Kingdom Department for International Development.

The *MyDairy* project was implemented between 2012 and 2018 in two phases: an initial four-year phase followed by a second phase of 1.5 years. The project aimed at mitigating the risks of aflatoxins in the dairy value chain in Kenya. The *MoreMilk* project is a five-year initiative (2016–2021) that works to upgrade milk hygiene and quality standards in the informal dairy value chain and maximize economic, health and nutrition benefits, especially for the poorest communities in Nairobi.

The workshop offered an opportunity to present the aims, objectives and plans of the *MoreMilk* project and receive inputs on its approach to improving the safety of informally marketed milk, as a pathway to impacting child health and nutrition in densely populated urban areas in Nairobi.

The projects invited participants from academia and research institutions, national government (regulators), the private sector, consumer organizations, donor organizations and informal dairy traders as key stakeholders in the dairy value chain in Kenya (the list of participants is presented at the end of the report).

# Workshop proceedings

The meeting started with welcome remarks by Jimmy Smith, Director General of ILRI, and opening remarks by representatives of the project donors. Shelly Sundberg, Senior Program Officer at the Bill & Melinda Gates Foundation, and Ramses Malaty, Deputy Head of Mission at the Embassy of Finland in Kenya, gave compelling statements of support for investments aimed at improving the health and nutrition of people and that support livelihoods and increase opportunities for vulnerable groups in Kenya and other low- and middle-income countries. The opening remarks were followed by a presentation by Delia Grace Randolph, joint leader of ILRI's Animal and Human Health program, demonstrating the importance of food safety for health, nutrition security and development.

The discussions were structured in two plenary sessions, one for each project. Preceding each plenary session, the projects presented research results (*MyDairy*) and objectives and approaches (*MoreMilk*). Three to four discussants, representing the key stakeholders of each of the projects' topics, formed a panel that discussed three questions pertaining to the projects. After hearing the panelists' views and opinions, the discussion was then opened to the other participants for their views, questions and comments.

Below are the questions in each plenary session:

## **MyDairy project**

- What are the most important challenges faced by the dairy sector in Kenya to reduce aflatoxin contamination?
- What are the most important interventions that help reduce the risk for milk consumers?
- What can governments and/or the private sector do to help reduce aflatoxin contamination?

## **MoreMilk project**

- What are feasible strategies to successfully engage all those operating in the informal dairy sector in interventions to improve the dairy sector?
- What incentives exist or could be made for such operators to engage?
- Will a training, certification and marketing (TCM) strategy deliver the short- and medium-term goal of improving milk safety and nutrition of children? Under which conditions?

## Presentations

The presentations given during the meeting can be accessed via the links below:

- *Food safety: why the game has changed* by Delia Grace Randolph (<http://hdl.handle.net/10568/91950>)
- *Measuring and mitigating the risk of mycotoxins in maize and dairy products for poor consumers in Kenya* by Johanna Lindahl (<http://hdl.handle.net/10568/91949>)
- *MoreMilk: making the most of milk* by Silvia Alonso (<http://hdl.handle.net/10568/91948>)

## Plenary sessions (summary of discussions)

### My Dairy project

*What are the most important challenges faced by the dairy sector in Kenya to reduce aflatoxin contamination?*

- The dairy value chain is very complex with many nodes and different actors. Mitigating aflatoxin contamination at every node is challenging as it requires a multi-agency and sector approach which is currently lacking. Control is further compounded by disconnect or lack of agreement among the actors of each node on the most effective mitigation strategies to put in place.
- Regulations, policies and Acts of Parliament that specify how to mitigate aflatoxin are scattered in different ministries and departments, leading to a multiplicity of regulators enforcing similar regulations, and with limited interaction and communication among them.

- Ensuring adequate availability of livestock feeds is always a challenge as no forecasting is done on annual needs. Livestock currently represent an option for the use of aflatoxin-contaminated feeds that are not fit for human consumption.
- Extension services are inadequate to serve the different actors in the dairy value chain. This is the reason for the current lack of capacity of actors in the value chain on how to address aflatoxin and poor uptake of technologies to address the same.

*What are the most important interventions that help reduce the risk for milk consumers?*

- Capacity building of actors along the dairy value chain on good agricultural and husbandry practices is key to reducing the risk of aflatoxin contamination of milk. This is paramount in complex value chains, as is the case of the dairy value chain in Kenya.
- Mapping of areas where aflatoxin contamination of milk is high would allow targeted capacity building activities for the different value chain actors.
- A significant amount of grain intended for livestock feed is contaminated with aflatoxin. An alternative to condemnation and disposal should be sought. It could be important to conduct investigations to understand, for each livestock species, what level of aflatoxin contamination in feeds may not represent challenges for animal health or public health. This will provide information on suitable and safe guidelines for the use of aflatoxin-contaminated grain crops.
- Testing for aflatoxin in milk and feed is expensive. There is a need to develop affordable, efficient and accessible testing services. The distribution of the existing laboratories does not encourage value chain actors to adopt a culture of testing for aflatoxin levels.
- Use of aflatoxin binders in animal feeds was suggested as a way of reducing contamination of milk with aflatoxin. While this appears to be a promising option, there are some challenges that limit its official authorization. Among these are its unclear efficacy, lack of monitoring procedures and the possibility that some binders may contain antibiotics that may exacerbate antimicrobial resistance.

*What can governments and/or the private sector do to help reduce aflatoxin contamination?*

- The national government should create a multi-ministerial sectoral team or authority to coordinate the activities of aflatoxin mitigation in the dairy value chain. This will reduce or avoid the current confusion and misunderstanding that value chain actors have on the roles and responsibilities of different government departments.
- The national government should make forecasts and plan for livestock feed needs by encouraging or subsidizing the growing of grains for livestock to remove the competition for grains between livestock feed and human food.
- The national government should, in a participatory and inclusive way, develop realistic and achievable policies and aflatoxin standards which are evidence based.
- Considering that agriculture and health are devolved functions, the development of laws and policies by the national government should involve the Council of Governors whose representatives are to implement them at the county level.
- The national and county governments should create an enabling environment for private sector investment in technologies for aflatoxin mitigation.
- Materials for awareness creation among dairy value chain stakeholders should be developed and capacity building undertaken by state and non-state actors to ensure congruence in the messages.
- There were concerns on whether there exists a demand for safe milk in Kenya, noting that willingness to pay for safe milk does not necessarily translate into paying for the same.
- There is lack of evidence on the cost-effectiveness of the various proposed aflatoxin mitigation interventions; it is important that this evidence be generated.

## MoreMilk project

### *What are feasible strategies to successfully engage all those operating in the informal dairy sector in interventions to improve the dairy sector?*

The informal milk sector is growing rapidly, contributing significantly to Kenya's Gross Domestic Product as well as household income and nutrition. The sector has a high turnover of actors and is heavily regulated by the Kenya Dairy Board (KDB), county governments and the police. The sector is not going to formalize soon, so attempts should be made to improve milk safety and increase access to safe and nutritious dairy products.

Based on these observations, below are some recommendations relevant to the implementation of the project:

- The project needs to work with the informal sector, in this case the Kenya Dairy Traders' Association (KDTA) which has a large network of members. Members of the association can be trained on milk safety, resulting in a cohort of trainers who will train new entrants into the sector for sustainability.
- The training should be done jointly by the project, KDB and KDTA who should all agree on the content of the training materials so that the goals of the project and the dairy sector are met. This will help build trust between KDB and KDTA, recognizing that both organizations work for the public good.
- It is important to organize the informal sector actors into hubs to help service providers find them and build their capacity. This will also improve the dairy traders' access to financial support, markets and technologies, and enable them to implement self-regulation and exploit economies of scale. Thus, KDTA can be an opportunity to achieve milk safety and better health outcomes.
- The government and KDTA need to discuss and identify incentives for the informal dairy traders to encourage them to invest in the sector and embrace milk safety as a goal.

### *What incentives exist or could be made for such operators to engage?*

- Legitimacy of any business is important to spur consumer confidence and growth. KDB should work with KDTA to improve milk safety thereby conferring to the sector a sense of legitimacy that will change perceptions of the industry, the government and consumers.
- Offer training that would help KDTA improve milk safety, testing of milk quality, value addition and market access.
- The informal dairy sector should be offered fair inspection and regulation like the formal sector. It should not be over-regulated as seems to be the case currently.

### *Will the TCM strategy deliver the short- and medium-term goal of improving milk safety and nutrition of children? Under which conditions?*

There was a resounding 'yes' from the panellists that the TCM approach would deliver the objectives of improved milk safety and increased milk consumption, leading to positive nutrition and health outcomes for children. For this to occur, the following points should be considered:

- The TCM approach was tested earlier and though successful, did not result in scale-up and sustainability. The project will have to learn from past mistakes for the approach to be scalable and sustainable this time around and deliver on milk safety, increased milk consumption and improved nutrition and health outcomes for children.
- The TCM approach will need to incorporate the views of all stakeholders (KDB, KDTA and the Kenya Dairy Processors' Association), even those with negative perceptions of the informal dairy sector. This will help to transform the sector with all players on board.
- The project should analyse the costs of the various components of the TCM strategy (including losses due to disease and gains from lack of it) to evaluate the approach and advise on its scaling up.
- Consumers of informally marketed milk and milk producers need to be made aware of the benefits of safe milk to stimulate sales and reduce costs that may be passed on to consumers by the KDTA.

## Program

Time	Activity	Responsible
8.00–8.30	Registration	
8.30–8.35	Welcome remarks	Facilitator (Erastus Kang'ethe)
8.35–8.40	Opening remarks (ILRI Director General)	Jimmy Smith
8.40–8.50	Opening remarks (Bill & Melinda Gates Foundation)	Shelly Sundberg
8.50–9.00	Opening remarks (Embassy of Finland in Kenya)	Ramses Malaty
9.00–9.15	Introductions (participants)	Facilitator
9.15–9.30	Dairy research at ILRI	Delia Grace
9.30–10.15	<i>MyDairy</i> project – presentation of results and questions	Johanna Lindahl
10.15–10.45	COFFEE BREAK	
10.45–12.15	Plenary discussion: Management of aflatoxins in Kenyan dairy farms <ul style="list-style-type: none"> <li>Options at source (animal feeds)</li> <li>Options at farm (milk)</li> </ul>	Facilitator and panel members
12.15–13.00	<i>MoreMilk</i> project – project presentation and questions	Silvia Alonso
13.00–14.00	LUNCH	
14.00–15.30	Plenary discussion: Upgrading the informal sector <ul style="list-style-type: none"> <li>Building capacity for better milk in the informal sector</li> <li>Incentives for quality/hygiene, standards, regulation and enforcement</li> </ul>	Facilitator and panel members
15.30	Meeting closure	Facilitator

## List of participants

No.	Name	Designation	Organization
1	Silvia Alonso	Scientist	ILRI
2	Johanna Lindahl	Scientist	ILRI
3	Delia Grace Randolph	Program Leader, Animal and Human Health	ILRI
4	Erastus Kang'ethe	Professor	Formerly of University of Nairobi
5	Sarah Ahlberg	PhD student	University of Helsinki
6	Edgar Okoth	Head of Department, Health and Nutrition	Action Against Hunger, Kenya
7	Charles Mbuthia	Programs Officer	Kenya National Farmers' Federation
8	Simon Ndung'u	Dairy Consultant	Shedwin Agribusiness Consultants
9	Gabriel Kago	Member of Parliament	National Assembly of Kenya
10	Florence Murekefu	Director of Livestock	Ministry of Agriculture, Livestock and Fisheries, Kenya
11	Daniel Senerwa	Lecturer	University of Nairobi
12	Harun Baiya	Chief Executive Officer	Site Enterprise Promotion
13	Alessandra Galié	Gender Scientist	ILRI
14	Christine Makena	Nutrition Specialist	Kenya Crops and Dairy Market Systems
15	Shelly Sundberg	Senior Program Officer	Bill & Melinda Gates Foundation
16	Emmanuel Mwau	Research Assistant	ILRI
17	Humphrey Mbugua	Association Manager	Association of Kenya Feed Manufacturers
18	Jane Ndung'u	Project Manager	Site Enterprise Promotion
19	Emma Blackmore	Research Associate	International Institute for Environment and Development
20	Ann Robins	Nutrition Specialist	United Nations Children's Fund
21	Samuel Muita	Secretary	KDTA
22	Jackline Wanja		Consumer Unity & Trust Society Africa Resource Centre
23	Nicholas Ayore	Deputy Director of Veterinary Services	Directorate of Veterinary Services
24	Martin Mulwa	Assistant Program Officer	Consumer Unity & Trust Society Africa Resource Centre
25	Maureen Mijide	Graduate Fellow	ILRI
26	Tezira Lore	Communication Specialist	ILRI
27	Joseph Karugia	Regional Coordinator	Regional Strategic Analysis and Knowledge Support System
28	Florence Mutua	Lecturer	University of Nairobi
29	James Wabacha	Program Coordinator	African Union–Interafrican Bureau for Animal Resources
30	Irene Kagera	Student	ILRI
31	Gladys Owino	Student	ILRI
32	Ramses Malaty	Deputy Head of Mission	Embassy of Finland in Kenya
33	Charity Kinyua	PhD student	ILRI/University of Nairobi