



FEED THE FUTURE INNOVATION LAB FOR LIVESTOCK SYSTEMS:

MILK PRODUCTION PRACTICES, MILK QUALITY, SAFETY AND PROCESSABILITY IN RWANDA

Dairy cows are a very important part of Rwandan culture and the milk production contributes to the fulfillment of nutritional needs for many people. Girinka program contributes to the increase in cattle population and milk production.

Along with the increase in cattle and milk production, there is a need for updated research at different levels of the milk chain including prevention practices against pathogens causing udder inflammation (mastitis) and improved post-harvest milk handling practices and milk storage.

To detect subclinical mastitis, i.e. mastitis without clinical signs, which is the most common type of mastitis in dairy cows, diagnostic tools are needed. There is a need to scientifically assess the knowledge of the farmers, advisors and veterinarians about these diagnostic tools, communicate about the fact that milk quality can be affected if best handling practices are not consistently applied, and then train actors in the milk chain accordingly.

Project Objectives

- To develop best practices that enhance dairy cow's udder health and milk quality in the Rwandan dairy chain by investigating factors on the farms that are affecting dairy cow udder health and how the udder health and handling of the milk from farm to milk collection centers affect the quality of milk;
- To train dairy farmers, Milk Collection Center (MCC) managers and technicians, extensionists, veterinarians, district veterinarians and students in best practices for good udder health and best milk production and handling practices.

Expected Outcomes

1. Increased knowledge of challenges, lessons and opportunities in milk production in Rwanda
2. Dissemination of knowledge about best milk production practices for improved udder health and post-harvest practices to enhance milk quality
3. Increased knowledge of milk composition, milk suitability for processing and milk grading
4. Improved milk production practices and raw milk post-harvest handling practices by dairy farmers
5. Improved raw milk storage and handling practices by MCC staff
6. Improved sustainability of applying best practices in milk production and milk handling by those training and advising milk producers and processors (i.e., district agronomists, veterinarians, extensionists and students)

Facilities:

The University of Rwanda facilities will be used to carry out various activities and laboratory analyses. The facilities include:

- Microbiology and chemistry laboratories
- A milk processing plant
- An agricultural library to support the development of training materials
- Experimental dairy farms in Nyagatare, Busogo and Rubilizi
- Community outreach office and community outreach experts

Quick facts about the project

- **Duration:** October 2016-March 2018
- **Target Provinces:** Eastern, Northern, Southern and Western provinces of Rwanda
- **Main implementing partner:** University of Rwanda, College of Agriculture Animal Sciences and Veterinary Medicine (U.R-CAVM)
- **Additional implementing partners:** Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden; National Veterinary Institute, Uppsala, Sweden
- **Collaborators:** MINAGRI, RAB, Heifer International, SEND A COW and target districts authorities

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