



**RWANDA DAIRY COMPETITIVENESS PROGRAM II**

**Quarterly Report**

**October 1 – December 31, 2014**

**CA# USAID-696-A-12-00002**

**Submitted to**

**Fina Kayisanabo, AOR  
USAID/Rwanda &  
Martin Fischer  
USAID AO**

**Submitted by**

**Land O'Lakes, Inc.  
P.O. Box 64281  
St. Paul, MN 55164-0281**

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**October 1, 2014 – December 31, 2014**

Name of Project:	Rwanda Dairy Competitiveness Program II
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Contact in Rwanda:	Frank O'Brien; Kigali, Rwanda
Contact in Regional Office:	Brian Dotson; Land O'Lakes/Nairobi, Kenya
Contact in the U.S:	LuAnn Werner; Land O'Lakes/USA

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## Acronyms and Abbreviations

ABS	African Breeders Services, Total Cattle Management Limited
AI	Artificial Insemination
BDS	Business Development Services
COMESA	Common Market for Eastern and Southern Africa
COP	Chief of Party
DCA	Development Credit Authority
DCOP	Deputy Chief of Party
DPPD	Dairy Public Private Dialogue
DSWG	Dairy Sector Working Group
DQAL	Dairy Quality Assessment Laboratory
EADD	East Africa Dairy Development project
EDPRS	Economic Development and Poverty Reduction Strategy
EMMP	Environmental Mitigation and Monitoring Plan
ESADA	East and Southern Africa Dairy Association
IEE	Initial Environmental Examination
INGO	International Non-Governmental Organization
GoR	Government of Rwanda
MCC	Milk Collection Center
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Economic Planning and Finance
MINEDUC	Ministry of Education
MINICOM	Ministry of Trade and Industry
MINALOC	Ministry of Local Government
MINISANTE	Ministry of Health
MS – DSWG’s	Milk Shed – Dairy Sector Working Groups
MSME	Micro, Small and Medium Enterprise
NDS	National Dairy Strategy
PLWHA	People Living with HIV and AIDS
PMP	Performance Management Plan
PSF	Private Sector Federation
PSTA III	Strategic Plan for the Transformation of Agriculture in Rwanda – Phase
RAB	Rwanda Agriculture Board
RALIS	Rwanda Agriculture and Livestock Inspection Services
RARDA	Rwanda Animal Resources Development Authority
RBS	Rwanda Bureau of Standards
RDB	Rwanda Development Board
RDCP II	Rwanda Dairy Competitiveness Program II
RMSA	Rwanda Milk Sellers Association
RNDB	Rwanda National Dairy Board
SOQ	Seal of Quality
SP	Service Providers
TOT	Training of Trainers
UCD	University of California – Davis

## Introduction and Highlights

This is the quarterly report for the period October 1 to December 31 2014. USAID's Rwanda Dairy Competitiveness Program II (RDCP II) project was designed to reduce poverty through expanded marketing of quality milk that generates income and employment, and improves nutrition of rural households. RDCP II aims to achieve this by linking existing and new smallholder dairy producers to expanding market demand driven by improved quality, reduced transaction costs and increased investment all along the dairy value chain.

Highlights for the past quarter ending December 2014 include the following:

### Best Practices materials developed in collaboration with RAB and RALIS



Figure 1: Educational materials developed to promote best milk handling practices along the value chain

During this period, RDCP II team worked jointly with RAB and RALIS to develop appropriate concepts to guide the contractor Creative Communications to produce final versions of "Best practices" materials under the promotion of the seal of quality program in anticipation for the dissemination of the Ministerial instructions on milk handling. This also marks the second theme of the Shisha wumva campaign with the goal to promote adoption of best practices leading to production and delivery to the market of high quality milk.

### Model Farmer outreach underway

The model farmer approach this period was boosted by the launch of the model farmers’ handbook and extension agents’ handbook both prepared by RDCP II production team. The materials in addition to earlier training provided to the model farmers’ and extension team will provide the necessary reference materials for successful training and demonstration to farmers in their communities. The handbooks are full with appropriate illustrations of best practices on the farm, and across the entire value chain. The model farmer and extension agents’ handbooks as well as the best practice materials



Figure 2: Models farmers with cans of molasses and other training materials to carry out field based training activities at village level

will combine to provide farmers and cooperative leaders an impetus to improve their businesses towards production of cleaner and healthier milk for consumption. The numbers of dairy farmers reached through the RDCP II supported model dairy farmer network in last quarter reached 9,012. This outreach has surpassed project expectations with individual farmers routinely interacting with an average of 30 dairy farmers per meeting. Sessions are interactive and best dairy management practices are introduced and discussed.

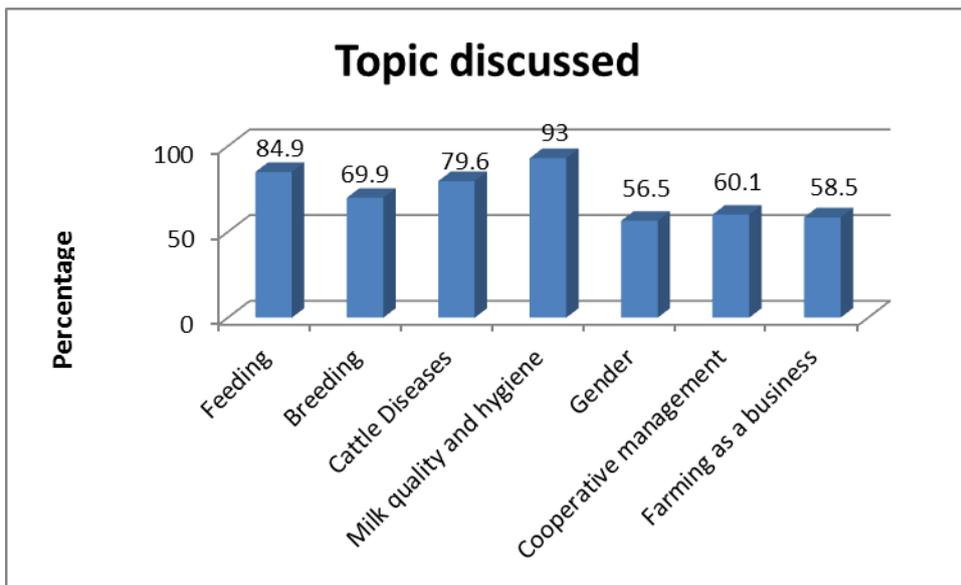


Figure 3: % of model farmers covering dairy best practice topics in farmer meetings

### Expansion of UoB small dairy farmer loans portfolio.

Urwego Opportunity Bank (UOB), one of the banks supported by Inspired International to develop appropriate dairy financing products has registered impressive developments with increase in loan approvals to farmers' cooperatives in the north western part of Rwanda. Urwego Opportunity Bank in the last quarter evaluated 201 new small holder farmers from two cooperatives in Rubavu district and expects to disburse approximately 100 million Rwandan Francs (USD 144,595.19) in new loans during the next quarter. This will be in addition to the 100 million already disbursed in the previous quarter in the same district. All loans will be used or have been used to purchase dairy cows. In addition it is expected that over 50% of new loans processed will be to female dairy farmers. RDCP II commends the will that has been demonstrated by UOB in financing the Dairy value chain activities in Rwanda.

### Cheese supermarket promotions and chefs training held

RDCP II continues to encourage and facilitate market linkages between Rwanda's rural based cheese processors and their mainly urban based end



Figure 4: RDCP II hired an international Consultant Mr. Kobus Mulder to train Hotel and Restaurant chefs in Kigali

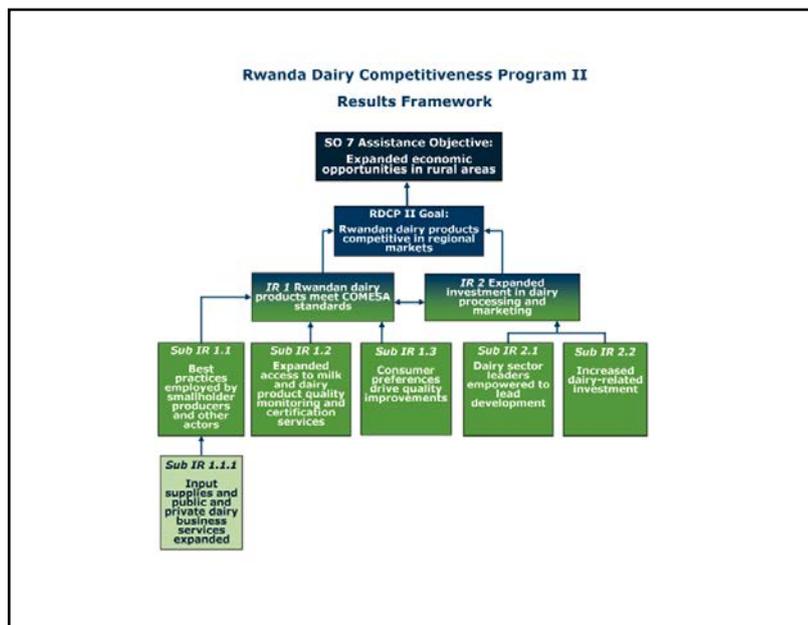


Figure 5: RDCP II collaborated with supermarkets to stage cheese exhibition to promote local cheese

market clientele. Traditionally the cheese makers have been reticent about approaching their urban clientele, the majority of which are in the retail or hospitality sectors, in Kigali. During December a range of promotional activities including hotel and restaurant chefs training and supermarket cheese tasting promotions were held in both Rubavu and Kigali. Rwanda cheese and cheesemakers were central to the success of these events. RDCP II team in collaboration with Cheese Consultant Kobus Mulder hosted two day outdoor cheese promotional events at Ndori supermarket and Simba super market. The purpose of these promotional events was to create awareness for Rwandan cheese and to help cheese makers to learn how to market their products. Two cheese makers participated in the outdoor promotional events at each supermarket, where participation from the public was high.

### Ministerial instructions on milk handling to be presented to Cabinet.

The Rwanda Legal Reform Commission advised that the Ministerial Instructions related to milk handling should be presented to cabinet for approval and ratification. In line with that, a cabinet memo was prepared by Minister of Agriculture and animal resources and submitted to the Prime Minister's office to be tabled during the next quarter in cabinet. This will conclude the process to formally introduce and implement milk handling best practices as promoted for the first time in Rwanda. The completion of policy instruments related to this activity will add credibility to RDCP II milk quality goals and achievements.



## IR 1: Rwandan Dairy Products Meet COMESA Standards

Rwanda produces over 500 metric tons of milk annually which is largely marketed through poorly regulated informal routes. This results in losses to the dairy sector, both in volume and value of dairy products marketed. RDCP II aims to position Rwanda as a hub for high quality dairy products by benchmarking local standards to regional COMESA standards and working with sector actors to achieve the same through a reward mechanism for implementing a range of best practices under the Rwanda SoQ program. During this quarter there was progress across the dairy value chain among animal feed service providers, dairy farmers trained and milk transporters engaged, as well as dairy processors and MCCs enrolled and encouraged to drive this process. Also, this quarter RDCP II worked closely with RBS, RAB and RALIS to ensure these agencies are well prepared to support this shift. In an endeavor to introduce a sustainable farmer to farmer knowledge transfer system, activities to support and equip the 349 model farmers trained up to the end of the last quarter continued. The trained model farmers continued to disseminate knowledge and skills through convening meetings with dairy farmers in their communities. During the quarter, the draft Ministerial Instructions were reviewed by the Law Review Commission which recommended submission of the Instructions to the Rwanda Cabinet. This was necessary because the Instructions implementation would involve several ministries. Given this development, once promulgated it is anticipated that the Instructions will have broad legal backing, and hence enable enforcement of best dairy practices across the entire dairy value chain from production through transportation, handling and processing. This will be the fulcrum for a fully functional national inspection and certification program under RALIS.

### IR1.1 Best practices employed by small holder producers and other actors

#### Key achievements for this period:

- This quarter, 2,341 (female - 1,148; male – 1,193) individuals including dairy farmers and other value chain actors benefited from training on dairy best practices, gender and BDS skills. This brings the cumulative number of farmers that have benefited from training to 26,895.
- 827 vulnerable households benefited from RDCP II interventions giving a cumulative total 9,979 beneficiaries since the beginning of the RDCP II program.
- 65 small growing businesses received business development services during the quarter giving a cumulative total of 6,543.

- 39 full-time equivalent jobs were created as a result of RDCP II interventions. Cumulatively, as at the end of the quarter, 9,191 jobs have been created.
- During this quarter 1,125 farmers and other dairy actors applied improved technologies and management practices giving a cumulative total of 16,547 since the beginning of the program.
- This quarter AI service provider ATVET conducted pregnancy diagnosis on 600 cows belonging to 600 vulnerable farmers inseminated during the last quarter in Musanze and Rulindo. Pregnancy rates were 70.7% and 73% for cows in Musanze and Rulindo, respectively.
- During this quarter 302 model farmers (115 female & 187 male) were followed-up to track their activities. These model farmers disseminated dairy best practices knowledge to a total 9,012 farmers (female – 4,362; male – 4,650) across the 17 RDCP II districts of operation.

In an endeavor to achieve the four core products/activities in relation to best practices i.e., the Feed Flow Plan, the Herd Health Plan, the Reproduction Plan, and the Clean Milk Production Plan and the Seal of Quality, this quarter RDCP II continued service provider and farmer training using the trained model farmers. The approach taken was as described in previous reports in which selected service providers and model farmers were trained on the best practices and then used as TOTs to advise farmers. Increasingly, the model farmers have become the predominant disseminators of dairy best practices to farmers. As reported previously, the model farmers disseminate knowledge and lead discussions on the core dairy best practices, particularly milk production and quality improvement, dairy farming as a business, gender mainstreaming and cooperative management. The 296 (out of 302) model farmers so far followed-up by RDCP II have already engaged farmers.

### **Implementation of Activities**

During this quarter, RDCP II trained service providers from Gatsibo, Kayonza, Nyagatare and Rwamagana districts. It also further trained feed processing and distribution service providers from all the Rwanda milk sheds that were initially trained in June 2014. RDCP II followed up 302 model farmers out of a total 349 trained model farmers.

All the 302 model farmers followed-up adopted new technologies and best practices including Mucuna planting and use in feeding cows (Figures 2 & 3) and mastitis prevention and control. By the end of the quarter, the cumulative number of farmers and other actors in dairy value chain that have adopted new technologies and best practices reached 16,547. As in the past, improved technologies and best practices adopted included silage and hay making, use of treated crop residues, minerals, feed concentrates, cow vaccination, deworming, tick control using acaricides, AI, mastitis control, milking hygiene, record keeping and business management best practices.

A total 39 full-time equivalent jobs were recorded this quarter (see FTMS Table). In general, job creation is associated with increased milk deliveries to MCCs and quality standards requirements associated. 9 of the new jobs are from milk sellers, 7 for new MCCs created and 23 jobs for transporters delivering milk from farmers to MCCs. However, jobs created at farm level are not reported this quarter because they are derived from surveys conducted at farm level. 2015 surveys will be carried out twice, in March and September respectively.

### IR 1.1.1 Input supplies and Public and Private dairy business services expanded

#### Key achievements:

- 33 (female – 5; male - 28) feed processors and feed formulation practitioners attended follow-up training organized by RDCP II.
- 59 (female – 12; male - 47) service providers from Gatsibo, Kayonza, Nyagatare were trained by RDCP II.
- A service provider, ATVET, conducted pregnancy diagnosis on 300 cows inseminated previously in each of the districts Musanze and Rulindo which revealed pregnancy rates of 70.7% and 73% for Musanze and Rulindo districts, respectively as opposed to the average of 65% normally achieved.

#### Model farmer activities

So far RDCP II has engaged in discussions on site with 302 out of the 349 model farmers to check action plan implementation. Apart from adopting new technologies and best practices, 296 of the 302 model farmers have engaged a total 9,012 dairy farmers in discussions and knowledge sharing on new technologies and dairy best practices (Table 1). The average contact was 30 farmers per model farmer which is higher than the 15 to 20 farmers per model farmer that RDCP II had anticipated. The topics discussed during the model farmers and general farmers' sessions include feeding, breeding, cattle diseases and milk quality and hygiene (Figure 4). The most popular topics discussed were milk quality and hygiene, feeding and cattle diseases. RDCP II began distributing training kits to, and further training of, model farmers to improve knowledge transfer to farmers.



Figure 6: Farmer Jonas Rudasingwa taking care of his mucana garden

Out of 9,012 farmers trained by model farmers, 1,653 were included in this quarters training numbers. Additional numbers will be included in the next quarterly report when model farmer reports are confirmed by RDCPII field staff follow up visits across the milk sheds. This activity is conducted in the framework of RDCP II scaling up plan to disseminate key selected technologies to a large number of dairy farmers even beyond the program initial operational areas.

Table 1: Farmers reached/trained by trained model farmers in their respective districts

District	Female	Male	Total
Bugesera	89	108	197
Gasabo	52	87	139
Gatsibo	287	534	821
Gicumbi	372	350	722
Gisagara	158	147	305
Huye	129	146	275
Kamonyi	998	655	1653
Kayonza	167	290	457

Kicukiro	72	48	120
Musanze	104	87	191
Nyabihu	145	238	383
Nyagatare	695	745	1440
Nyanza	170	194	364
Rubavu	118	155	273
Ruhango	172	238	410
Rulindo	315	274	589
Rwamagana	319	354	673
<b>Grand Total (% of total)</b>	<b>4362 (48.4)</b>	<b>4650 (51.6)</b>	<b>9012</b>

Apart from disseminating knowledge to farmers, some model farmers are now providing essential services. A case in point is that of Mr. Kabirigi Gregoire, a RDCP II model farmer in Rusatira Sector, Huye District, who is offering an external parasite control service in his area (Figure 10). After being trained by RDCP II, he sensitized farmers in his area about the importance of controlling external parasites including ticks. He then offered to commercially spray farmers' cattle with acaricides at a fee of 1,000 Rwf per cow/month. Currently Mr. Kabirigi is earning 150,000 Rwf per month in revenue from this service. This example needs to be replicated in other areas, particularly for provision of such a routine veterinary service. As stated some model farmers have realized benefits from adopting improved feeding and mastitis prevention and control after RDCP II training. An example of a model farmer who benefited is Mr. Claude Kamugundu. He adopted feeding of legume forages as well as improved mastitis prevention and control practices, including treatment of existing cases of mastitis with antibiotic and use of a teat dip (Valiant – a chlorine dioxide-based teat dip), and improved milking hygiene (Figures 6 & 7) which led to a 40% daily milk production increase three weeks after adoption. In fact, daily milk production of one cow increased from 12 to 20 litres (66% increase). He said that after 3 weeks from starting to apply these best practices (washing hands with hot water before milking, cleaning the udder, use of teat dips to control mastitis, treating sick cows and feeding leguminous forages) one cow which was producing 12 liters/day increased its daily production to 20 liters. Farmer Kamugundu has shared his success with farmers in his area.

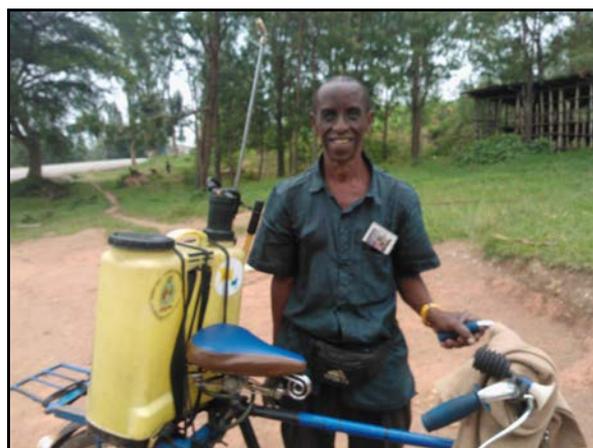


Figure 7: Model farmer Gregoire Kabirigi with his bicycle and acaricide spraying equipment

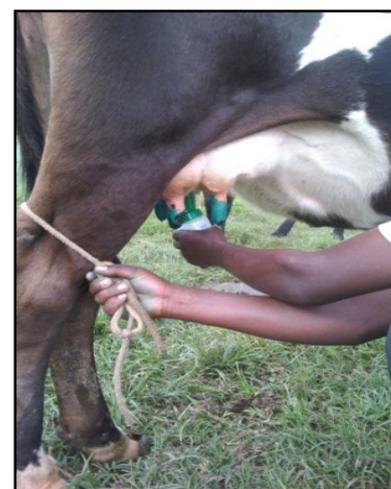


Figure 8: Applying chlorine dioxide teat dip on a cow at Mr. Kamugundu's farm

## AI Service Providers engaged

### Artificial insemination

In Musanze and Rulindo the 300 cows inseminated in each district were examined by ATVET Ltd technicians for pregnancy using rectal palpation. 73% and 70.7% of the inseminated cows were pregnant in Rulindo and Musanze districts, respectively. These pregnancy rates are high as they exceed the 65% pregnancy rate average for the CRESTAR synchronization protocol. Other districts are still carrying out PDs which will be reported in the next quarter.

### Training of service providers

Over a three-day period, RDCP II trained 59 (female – 12; male - 47) service providers from Rwamagana, Kayonza, Gatsibo and Nyagatare districts. Topics covered were those for the RDCP II standard dairy best practices course for service providers that includes cattle management (e.g., feeding, breeding & herd health), good quality milk production, milk hygiene and handling, dairy business management, and gender mainstreaming. Because of the large number of trainees, the service providers were trained in two sessions in Kayonza with each session lasting three days. Apart from the theoretical component, trainees spent an afternoon at a nearby farm where best feeding (e.g., molasses use, & treatment of maize stover using urea) and milk hygiene practices were demonstrated. As has been the practice, these trained service providers will train farmers in their respective districts through RDCP II supported training or as an embedded service during their usual service provision.

### Feed formulation and processing training

RDCP II organized and conducted a further two-day training of animal feed sellers and processors from different districts of program operations that were initially trained in June 2014. Thirty three (female – 5; male - 28) out of the 43 trained in June attended the training at Les Pyrenees Hotel, Gatsata Sector, Gasabo District, Kigali City, from 3 to 4 December, 2014 (Figure 8). The trainees reported on how they used the last training and the challenges they have met. Apart from this, the course focused on what the trainees had implemented after the first training, how to plan for raw material acquisition, developing feed markets, and least cost approaches to feed formulation which ensure that the milk price per liter to feed price per kg ratio is more than 1.2:1.



Figure 9: Dr Makoni, ABSTCM Nairobi, leading the training of feed processor and retailers at Les Pyrenees Hotel

While the knowledge of the trainees in feed formulation and marketing increased after training, there was a general perception that the market for feeds was not developed in Rwanda. As a result, quantities of feed sold remained low. It was clear that the high price of feed relative to milk price deterred purchase of large feed quantities. Options on reducing the cost of feed through stockpiling raw materials when available and competitively priced were explored; in addition, the use of byproducts including maize bran, urea for boosting nitrogen were also discussed. However, appropriate feed formulations would depend on the raw materials available in the area. While there is still interest in feed processing and distribution, the processors should seriously consider harnessing demand for feed for other livestock, particularly poultry and pigs that are normally the major consumers of stock feed. In addition, in order to cover processing overheads, feed processors should consider vertically integrated feed business models in which self-owned farms provide a guaranteed market for feeds.

Given these revelations, RDCP II will continue working with the feed processors and retailers to improve feed standards. In order to partly assist the processors, RDCP II and its consultants will visit them to give advice at their sites and in particular will look at opportunities around least cost feed formulation.

### Feed input supply

This quarter, one of the two RDCP II feed mill grant recipients, VETOPROX in Huye District in the Southern Milk Shed, sold 5.3 metric tons of feed over the three-month period. This is a consistent increase in sales from the last two quarters and is close to double the sales for the last quarter (2.7 metric tons). The increase in sales is largely attributed to a RDCP II facilitated meeting between VETOPROX and potential client farmers in which farmers expressed their concern about the high feed price. In response to farmer concerns, VETOPROX reduced their feed price from 250 Rwf/kg to 230 Rwf/kg.

Similarly, the feed sales at the other feed mill grant recipient, Nyagatare Agronomist Development Cooperative (NADCO) in the Eastern Milk Shed, doubled for 4.2 metric tons in the last quarter to 9.5 metric tons. This is a substantial increase from the last quarter and before that has been a result of training and improved product marketing.

While cognizant of the challenges facing the Rwanda stock feed sector, RDCP II expects the feed mill grant recipients to increase their sale quantities to at least cover their overheads.

### Veterinary service activities

After being granted a no cost extension, the Veterinary Yield Entrepreneurs Cooperative (ITABAZA) project ended. During the no cost extension period ITABAZA developed an ambulatory herd health program model for smallholder farmers. This program enables farmers to pay a fixed monthly fee to ITABAZA and in turn ITABAZA provides routine veterinary services to the farmers. The farmers are visited regularly on set dates for the routine services. Farmers have an option to pay for the service through MCCs. This activity is a new approach and RDCP II will explore with ITABAZA the outcomes and best forward for sustainability.



Figure 10: Animal feed processing equipment as seen at both Vetoprox and NADCO

*Table 2: Below is a summary of all trainings conducted during the quarter for which details are provided under each specific IR:*

<b>TRAINING</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Farmers training through model farmers approach	1,653	655	998
Training of Cooperative leaders with AgPro tools	349	268	81
Training of Hotel and restaurant Chefs on Cheese cooking	102	95	7
training of Service providers (Eastern Milk Shed)	59	48	11
Training of feed processors	33	27	6
Training of Dairy sector Actors in Collaboration with Minicom	28	19	9
Training of milk zone Owners and Operators	25	18	7
Training of milk transporters ( Quality & BDS) in Rubavu and Gasabo	42	27	15
Training of MCCs leaders & technicians - BDS (Gasabo, Rulindo, Bugesera, Gatsibo)	50	36	14
<b>TOTAL</b>	<b>2341</b>	<b>1193</b>	<b>1148</b>

#### **Milk Collection center milk volumes collected**

The Q1 target was 5,623,494.5 liters. Actual number of liters that passed through the MCCs during the quarter was **10,409,935** liters from the 17 districts of program operation. Numbers are shown in the table below per district:

It is notable that for the second consecutive quarter Gicumbi is the district that collected the highest volume of milk through MCC's surpassing Nygatare which has traditionally been the district collecting the largest milk volume. This can largely be attributed to well organized daily collection of milk and prompt payment for milk supplied.

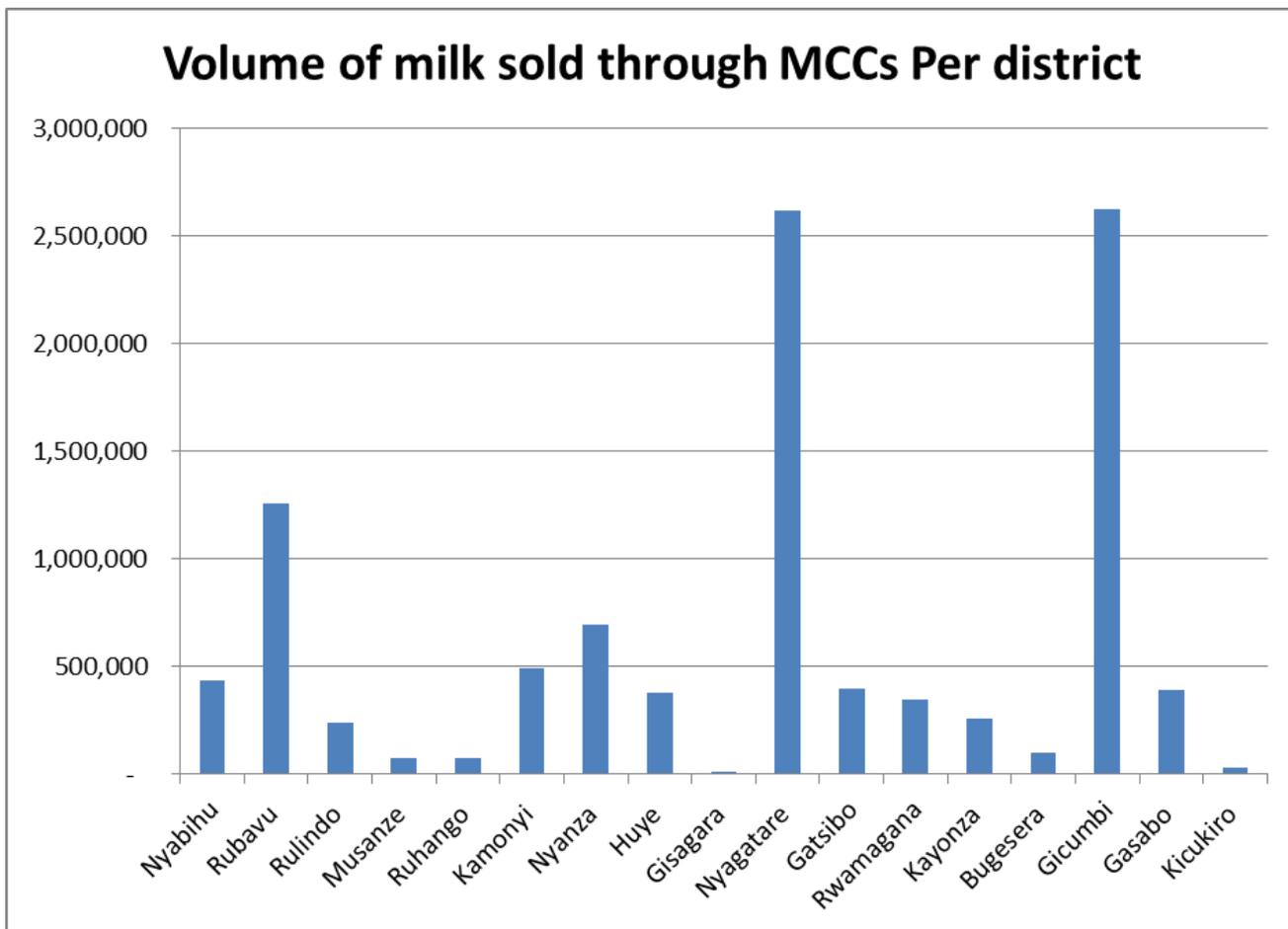
*Table 3: Volume of milk sold through MCCs per district*

<b>Volume of milk sold through MCCs Per district</b>		
<b>Quarter 4 summary</b>		
	<b>District</b>	<b>Liters</b>
1	Nyabihu District	433,381
2	Rubavu District	1,255,868
3	Rulindo District	236,438
4	Musanze District	71,637
5	Ruhango District	76,518
6	Kamonyi District	493,388
7	Nyanza District	695,345

8	Huye District	374,925
9	Gisagara District	8,640
10	Nyagatare District	2,621,107
11	Gatsibo District	397,548
12	Rwamagana District	345,545
13	Kayonza District	255,100
14	Bugesera District	101,026
15	Gicumbi District	2,625,689
16	Gasabo District	389,622
17	Kicukiro District	28,160
	<b>Total</b>	<b>10,409,935</b>

Nyagatare and Gicumbi rank highest in volumes over the last 3 months, followed by Rubavu and Nyanza. Kicukiro and Gisagara have the least volumes. The chart below indicates a comparison of milk volumes per district:

**Chart 1: Comparing milk volumes per district**



**Source: Cooperatives/ MCC monthly report**

## IR 1.2 Expanded access to milk and dairy product quality monitoring and certification services

### Key achievements for this period:

- 20 Milk Zone owners, 14 Milk Zone operators and 4 Inyange technicians trained
- 40 hotel and restaurant chefs were trained on how to cook with cheese as a menu item and in different dishes
- 49 cheese technicians and 11 cheese makers participated in a specialty cheese making workshops
- 2 'in-store' cheese promotions held in Kigali supermarkets

### Inyange milk zones owners and managers' training:

Following a formal request from Inyange Industries Ltd, a two-day training was organized and facilitated by RDCPII in conjunction with Inyange Industries for the owners and managers of milk zones across the Kigali milk-shed. A total of 20 Milk Zone owners, 14 Milk Zone operators and 4 Inyange technicians attended the training. As Inyange industries issues a franchise agreement Milk Zone proprietors they cannot compromise on quality and safety of milk sold through a Milk Zone premises as it bears the 'Inyange brand name'. The training was held at Inyange Industries board room from 5<sup>th</sup> to 6<sup>th</sup> November 2015. Managers were trained on day one and the owners were trained on day two with Anyang staff attending both sessions. RDCP II staff (a specialist on milk quality and another specialist on dairy value chain) were assigned to train the attendees.

The training consisted of the following topics:

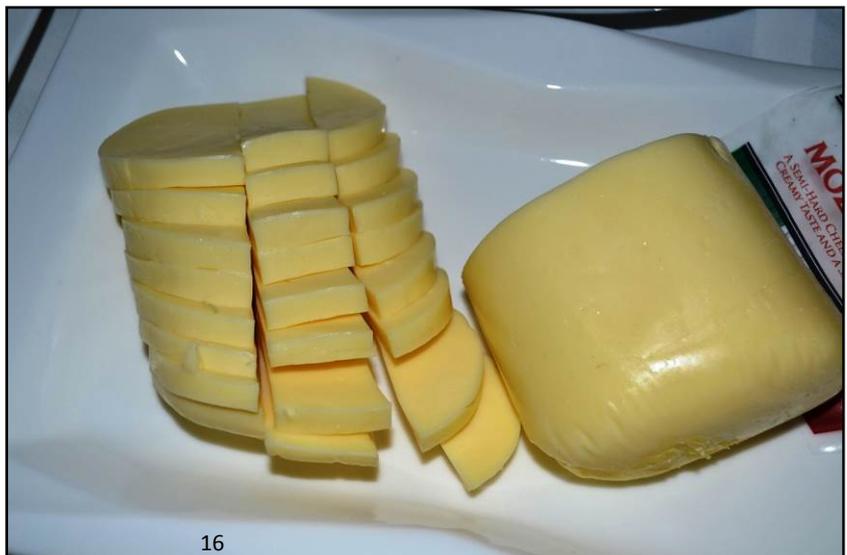
- Milk and milk components
- Milk and milk products
- Good Hygiene Practices based on CAC/RCP 57-2004: Code of hygiene practice Standard, COMESA/EAS African Standards' quality requirements
- Customer care
- Record keeping (for both quality and business)

The training feedback revealed that the majority of the trainees possessed limited knowledge of the common milk hazards and how to control them. During follow up visits one month after the training, staff observed improved hygiene practices at a number of Milk Zones.

The training for each group concluded with a tour of Inyange milk processing line. This tour provided the Milk Zone operators with the opportunity to see first-hand and for the first time a modern milk plant producing quality certified pasteurized milk.

### Cheese-makers, chefs and cheese technologists training:

In December 2014, over 11 cheese makers, 40 Chefs from hotels and restaurants in Kigali and Rubavu and 49 cheese



16

Figure 12: The trainer showcased foreign cheeses to inspire local cheese makers to improve the quality and presentation of their products in order to grow their businesses

technicians were trained through various theory and practical workshops over a two week period. The Kigali chef training was hosted by the head chef at Milles Collines Hotel.

The trainees were taken through the following key areas: how is cheese made, sensory evaluation of cheese, cheese categories with tasting of cheeses from each category and cheese as an ingredient in dishes through sharing ideas on different cheese dishes. In addition cheese makers were invited to participate in 'in- store' promotions of their products in two different supermarket locations in Kigali. Customers/shoppers were provided with the opportunity to taste and sample cheese, while supermarkets were provided with the opportunity to promote cheese in collaboration with the cheese makers. The events and activities were coordinated by visiting South African, cheese consultant, Kobus Mulder in collaboration with RNDP and facilitated by RDCP II.

#### **The following were key activities completed in this quarter;**

- 40 hotel and restaurant chefs were taught how to cook with cheese as a menu item and in different dishes.
- 2 supermarket cheese tastings/promotions were carried out at Ndoli and Simba supermarkets in Kigali with the applicable cheese makers in attendance at each tasting session
- A sensory evaluation course was provided to selected cheese makers and technologists in preparation for future Rwanda Cheese Championships.
- 49 cheese technicians and 11 cheese makers were taken through theoretical and practical cheese making workshops to improve and refine cheese making skills
- A cheese flavor and texture workshop was held for cheese makers making new cheeses, but who were not familiar with the true standards and recipe specifications.

The consultant was invited to visit Inyange industries to discuss various aspects of the mozzarella manufacturing process. Following on from this visit he was invited back for a consultancy at Inyange's own expense in January 2015 to advise on improvements in dairy processing practices.

#### **HACCP certification training**

Two staff from RALIS and two from RDCP II were trained in Hazard Analysis and Critical Control Point (HACCP) program in the previous quarter. The training was organized and conducted by Land O'Lakes Inc. and held in Nairobi, Kenya. The trainees will be available to apply new expertise to support processors applying for HACCP certification from different certification bodies including Rwanda Standards Board (RSB). Going forward HACCP certification will become more important in Rwanda's emerging food/dairy sector. Increasing local expertise will positively impact ability of local organizations to respond adequately to this new requirement.

### **IR 1.3 Consumer preferences drive quality improvements**

- The second theme of the dairy consumption campaign "Shisha Wumva" was launched, focusing on the handling of milk
- A cabinet memo related to Ministerial Instructions on milk handling was prepared and submitted to the Prime Minister's for cabinet review and approval before publication in the GOR Official Gazette.

During the quarter, Ministerial Instructions on milk quality control were returned to the Minister of Agriculture and her team to check that each comment in the previous reviews was well captured and still in line with the subject matter by Rwanda Legal Reform Commission. It was advised that because implementation of the Ministerial Instructions will be the responsibility of various agencies and ministries of the Government of Rwanda they should be submitted for final Cabinet approval. A cabinet memo was prepared and submitted to the Prime Minister's office to be tabled for cabinet review and approval in the next quarter before they can be published in the GOR Official Gazette.



Figure 13: Ministerial instructions are expected to cover the entire chain including all forms of milk transportation

The main purpose of these Ministerial Instructions is to provide guidelines for milk handling from farm to the consumer which will be a legal basis for implementing hygiene in the dairy sector by all concerned actors. RDCP II actively participated in the drafting and technical guidance to the Government regarding the contents of these instructions. RDCP II has also guided RALIS (department of Ministry of Agriculture) on preparation of their grant request for the implementation of these instructions. Once the instructions are published, every actor along the whole value chain will have their specific roles clearly stated and penalties outlined therein for any non-compliance.

In parallel with the above RDCP II developed dissemination materials regarding Good Hygiene practices targeting specifically the farmers, those employed by the farmer to milk/handle the cows, the milk transporters, the MCCs and the milk kiosks. The materials developed in close collaboration with RAB and RALIS include fliers, posters and radio announcements. These will be distributed to key milk handling actors as mentioned above. The radio adverts will be broadcast by Rwanda Broadcasting Agency (RBA) during the next quarter. RBA has the highest listenership and radio coverage in the country and many of its announcements are rebroadcast on community radio networks.

## IR 2: Expanded Investment in Dairy Processing and Marketing

### Highlights elaborated on in this section include:

- Roll out of the Ag Pro performance management roll out launched in 41 MCC's and 4 dairy SME's.
- RDCP II facilitated the dairy cluster for the National SME conference organized by the Ministry of Trade and Industry (MINICOM)
- four different private processors adopted the Shisa Wumva logo for their dairy business promotion
- A Tripartite (Inyange industries, Milk zone operators & RDCP II) monthly coordination meetings put in place for the development of the Milk Zone business.

RDCP II aims to increase both public and private investment in human and financial capital to enable Rwandan dairy products to become locally and regionally competitive. This calls for concerted efforts and increased stakeholder engagement to improve both policy advocacy and leadership development within dairy organizations and businesses.

### IR 2.1 Dairy Sector Leaders Empowered to Lead Development

Dairy sector leaders under the umbrella of RNDP held a series of consultation meetings with key partner institutions regarding the ideal legal status of the platform. This follows delayed award of registration certificate by the Ministry of Public Service and Labor (MIFOTRA). This prompted both PSF and RNDP leadership to initiate consultations across various agencies including Rwanda Cooperative Agency (RCA), Rwanda Governance Board (RGB), Rwanda Legal reform commission (RLRC), MINAGRI and MIFOTRA, at senior management level, over the ideal legal status.



Figure 14: RNDP Chairperson, Ms. Florence Umurungi,

While RNDP exists as a platform, its activities have been hampered by this delay as the certification is a pre-requisite for RDCP II grant processes. Following the above consultations, all agencies concur that MIFOTRA has the legal mandate to grant such. However MIFOTRA has raised concerns over RNDP composition, regarding inclusion of the consumer cluster. Therefore, RNDP Chair Florence Umurungi has submitted an appeal to RLRC, with full support of Minister of State (Agriculture), seeking specific guidance and requesting that the process of granting final legal status be expedited.

The formation of the dairy platform, which is made of different organizational structures will be the first of its kind in Rwanda and has presented unforeseen complications in determining the most appropriate registration fit. The good will and support of this initiative by key players as mentioned above and

determination of RNDP chairperson to finalize registration indicates a positive outcome early in 2015 allowing RNDP grant application to be submitted for approval.

#### Other highlights during this period:

- MINICOM hosts SME business forum
- Building capacity through dairy sector partnerships
- Dairy Consumer campaign focuses on best practice leading to quality improvements
- Ag Pro roll out ( Performance measurement and Management)
- Facilitating the growth of milk zone business

#### Build capacity of RNDP

##### MINICOM hosts SME business forum

During this period, RNDP was facilitated to lead the dairy clusters during the National SME conference at the Lemigo hotel December 9-10 2014. Following an assessment of challenges in the SME sector carried out by the Ministry of Trade and Industry (MINICOM), a stakeholder forum was conducted which attracted participants from six selected SME clusters namely Dairy, ICT, Honey, Wood products and Construction materials, Fashion & Tailoring and Cross-cutting. Pertinent issues related to trade were discussed with the Ministry showing commitment to tackle issues raised and to host similar sessions quarterly as a means to keep in touch with reality.

Notably, the participation and leadership of RNDP in the facilitation of the dairy cluster discussions played a significant role in bringing pertinent issues to the attention of the Minister and his entire management. Further, this highlighted the importance of having sector representation in RNDP which others clusters were encouraged to establish as soon as possible.

Each cluster was represented by SMEs involved in the cluster, public institutions operating in the cluster, International and local NGOs supporting the cluster; the cross cutting cluster was composed of entrepreneurship and business development supporting institutions.

*Table 4: During the forum, group discussions were organized by the following team leaders:*

Cluster No.	Cluster	Team leader
<b>C1</b>	Dairy products	<b>RNDP</b> and LAND O'LAKES
<b>C2</b>	ICT	ICT Chamber and JICA
<b>C3</b>	Honey	<b>SNV</b> and Agriprofus
<b>C4</b>	Fashion and Tailoring	<b>BPN &amp; MINICOM</b>
<b>C5</b>	Wood products and construction materials	Chamber of liberal professionals in construction
<b>C6</b>	Cross cutting entrepreneurship and business development support institutions	<b>EDUCAT</b> and BDF

The SME forum being the first of its kind in Rwanda presented the following outcomes; industry leaders private and public were provided a platform to highlight issues common to industry development at large and the lead Ministry and presiding Minister received first-hand account of the industry challenges for which they pledged to act quickly to resolve. Notably, sector representation through platforms under the PSF mentorship was applauded and encouraged by the Minister.

## Building capacity through dairy sector partnerships

In collaboration with Agri-ProFocus, RDCP II planned and organized a 2 day market linkage and business opportunity in Rubavu on October 5, targeting Rubavu, Musanze and Nyabihu district farmers. A total of 2000 members of the community visited the market place. 41 exhibitors showcased their products including 25 companies and cooperatives in agriculture, 6 financial institutions, 10 NGOs and the Ministry of Agriculture.

The ceremony was officially opened by the Vice Mayor in charge of social affairs in Rubavu District, together with JADF President and the coordinator of Agri-ProFocus Rwanda.



Figure 15: The market linkage event was attended by a number of district officials

On Dec 4, 2014 RDCP II facilitated a meeting that brought feed processors and retailers into a discussion meeting at Umubano hotel. This meeting was organized in close collaboration with Agri-ProFocus. Participants include feed sellers, vets, feeds processors, government extension and research officers. Below is a list of some of the members that attended the meeting.

## Dairy Consumer campaign focuses on quality improvements

The on-going dairy consumption campaign “Shisha Wumva” during this period progressed to its second theme - to focus on milk and dairy products value chain actors attending and maintaining the quality of milk during handling. In line with the original campaign design, while the first theme encouraged generic consumption of milk, the second theme would focus on milk quality. With reference to the draft Ministerial Instructions on milk handling, the campaign team designed informative visually appealing materials to help disseminate quality practices from the farm to the end market. Key targeted actors comprised of farmers, milkers/herders, transporters, MCCs, and Milk kiosks. These five points mark the points at which milk is most likely to be adulterated during handling.

The materials will be used to disseminate information during RDCP II organized trainings and farmer seminars to emphasize the relationship to end consumer expectations. This coupled with messages, yet to be developed, on the importance of milk in early childhood and family nutrition will go a long way in promoting milk as a beverage of choice.

## Performance Measurement and Management (Ag-Pro tool)

During this period, the Business Development Specialist assisted by Land O’ Lakes Cooperative Development Specialist identified nine Business support specialists to facilitate the roll out of the performance management tool across the selected MCCs in the RDCP II zones of operation. This is in line with fast tracking the implementation of business principles initiated by RDCP II in the previous period.

This included preliminary assessment of business performance at the start and continuous training and performance monitoring during a three-month period to mentor the cooperative leadership on best practices. At the end of this period, the cooperatives will be further assessed by RDCP II to determine the impact on the business performance and management. Actions recommended following the assessment

will be a responsibility of the cooperative management guided by the business support specialists. This approach has been recommended as a mentorship and weaning strategy to cooperatives towards sustainability. Initially 41 MCC's and 4 dairy SME's will be mentored following the Ag Pro tool guidelines focusing on six key constraint capacity areas of Leadership, Adaptive capacity, Management, Operations, Supply/processing & Marketing and Productivity & financial management. It is anticipated that the interventions will address the internal and external challenges faced by the producer groups and result into more efficient, profitable and self-sustainable entities which will contribute directly to project targets.

### Facilitating the growth of Milk Zones in collaboration with Inyange

Given the rapid expansion of milkzones across key residential and business centers in Kigali, RDCP II has maintained a close relationship with both the operators and Inyange industries to help mediate on issues affecting the growth of the same. Key issues have been discussed among them including delayed supplies, calibration of equipment, selection of franchisees as well as proximity to each other that limits individual growth.



Figure 16: Milk Zones have increased in number across Kigali City creating a catalyst for increasing demand for pasteurized milk

Tripartite monthly meetings to discuss and resolve such issues have been set up between Inyange, RDCP II and key representatives of the Milk Zone operators. As of end of December 2014, 43 milk zones were operating with a total holding capacity of over 60,000 liters daily. RDCP II will work with Inyange to improve the daily milk supply to the Milk Zones which is currently about 16,000 litres per day. This may be achieved by improving the understanding of supply logistics constraints as well as the need to enhance the relationship/communication between the operators and Inyange industries.

RDCP II has remained committed to facilitating a healthy relationship among the businesses and the banking sector, highlighting the opportunity provided by the Milk Zone business to selected banks.

## Shisa Wumva cobranding with private sector



Figure 17: Zirakamwa Meza Dairy LTD, co-branded with Shisha Wumva campaign



Figure 18: Blessed Dairies LTD, co-branded with the milk consumption campaign – Shisha Wumva

During the last quarter four different private processors have adopted the Shisa Wumva (SW) logo and incorporated same into their own company promotion material. This includes Haji enterprises who branded his building in Nyanza town, and Zirakamwa Dairy, Blessed Dairy and Inyange industries all of whom have placed the SW logo on their milk transport vehicles – see photos below.

All view the Shisa Wumva concept as industry owned and value its contribution to raising awareness of increasing milk production.

## IR 2.2 Increased Dairy-Related Investment

- Two new animal feed plants opened in Northern and Eastern Rwanda through government of Rwanda and development partners, the value of investment for Northern feeds plant (ZAMURA Feeds in Musanze) estimated for dairy feeds is equivalent to USD 316,667. Information for Eastern Province plant yet to be shared. A dairy processing plant (EU funded in collaboration with MINICOM) under construction in Northern Rwanda.
- IAKIB & Blessed dairies purchase a second truck equipped with insulated tank (partially funded by IAKIB members contribution) with a total value of Rwf 55,000,000 (USD 79,594.79). This include a donation from FAO equivalent to USD 31,837.91 loans equivalent to 100,500.000 million Rwf (USD 144,717.80) to 201 farmers from two cooperatives (Tuzikamire Kabumba , Bugeshi Sector and Kabu-uragantunga, Busasamana Sector) were evaluated by UoB
- Cooperative Turwanyeye Bwaki (CTBK) located in Mahoko/ Kanama Sector bought 2 new vehicles for transporting milk with a value of Rwf 12,760,000 (USD 18,465.99)

## Coordinate and leverage industry investment

### Highlights:

- Inspired International re-initiated discussions with Inyange over financing options to facilitate the supplier side
- New animal feed plants start production in Rwanda
- RDCP II- BDF in joint effort to support Burera community processing

## Promote investment

### Inspired re-initiates discussions over financing options

Following a series of complaints from MCC's supplying milk to Inyange industries over delayed payments and the subsequent drop in their volumes supplied, Inspired International has been at the forefront of analyzing the issues and supplying possible remedies.

Delayed payments is identified as a major setback to the continued growth of the dairy businesses in Rwanda, this applies in particular to growth of the formal sector. Typically Inyange delays payment to its supplier MCC's by 90 – 120 days. This result in reluctance of these MCC's to supply larger volumes of milk to Inyange perpetuating supply to the more liquid informal sector.

Inspired has shared various structured trade financing options, including invoice discounting structures, with Inyange that could be applied as a solution to addressing lack of finance/liquidity to pay for milk supplied. In addition, Inspired has provided guidance to Inyange management on key banks willing to negotiate favorable terms to support this initiative and how these terms would be implemented.

While the feedback has been generally positive, we are yet to register a breakthrough deal between the banks and the largest processor in country. Clearly, a successfully payment plan is the motivation for growth and a stronger relationship between the parties. Inspired included BRD – Development Fund (BDF) in the negotiations hoping that the presence of this local guarantee fund may provide additional comfort required by the banks in the discussions to take on the perceived additional risk due to the delayed payment scenario.

### New animal feed plants open in Rwanda

Two newly established animal feed plants were opened in Rwanda during this period. Zamura Animal Feeds Company located in Musanze town has started commercial operations currently producing feeds for poultry, pigs and dairy cows. Zamura has received support from Thyssen Feeds the US based animal feed manufacturer, GoR and a local investor. A second plant, privately owned, Premier Animal Feeds Ltd in Rwamagana has started trial production of animal feeds and is yet to launch commercial production. The establishment of both plants is in line with the proposition in the National Dairy Strategy to improve animal feed availability as a priority investment for the growing dairy sector.



Figure20: Zamura Feeds Plant has been launched

Consequently, MINAGRI has approached RDCPII to participate in establishing the competitiveness of the animal feeds on the local market. The program is currently in consultation with other stakeholders to determine the best way forward. It is anticipated a stakeholder dialogue will be convened in the coming period. It is hoped that with the introduction of high quality commercial animal feed, a major gap in the nutrition of dairy herds will ultimately be filled.

## **RDCP II- BDF in joint effort to support Burera community processing**

During this period, the BRD Development Fund (BDF) approached RDCP II for technical input to support the on-going initiative Burera Dairy Community processing center. The processing centers, a grant to MINICOM by European Union (EU) and put under Management of BDF is an initiative promoted around selected value chains including dairy to build community processing centers in selected locations based on the value chains of choice. Burera processing center which is under construction in Burera district will process and market cheese made in Rwanda. RDCP II with cheese consultant Kobus Mulder visited to ascertain what role RDCP II could play to support this initiative. Following the visit, RDCP II recommended that both MINICOM and BDF consider engaging the services of Kobus, an experienced cheese consultant to provide the required technical guidance as the plant is at the initial stage of construction and selection and set up of the equipment.

## **Stimulate supply and demand for dairy-related financial services**

### **Payment systems**

A key constraint hindering growth in milk supply to the formal sector is a habitual delay in payments to suppliers who in the course of this delay chose alternative markets that nonetheless do not provide a reliable market. Delays are attributed to an inadequate flow of cash to the large scale processors whose clientele on the other hand also delay to make payments for supplies. This cycle of delays is a major frustration to small holder farmers' whose main source of livelihood is their daily sales of milk. During the quarter RDCP II with Inspired organized several meetings with leading Banks ( KCB, BPR, BDF, BRD , UoB) and key dairy players such as producers, transporters and processors to discuss this financial challenge as well as propose and promote financing options to address it. RDCP II also facilitated meetings with leading processors in the country such as; Inyange, Iwacu Zirakamwa Nyanza Dairy, and Blessed Dairy to discuss payment systems as the motivation for strengthening of value chain activities.

### **Loan approvals and disbursements by UOB**

During the last quarter UoB continued to appraise new dairy loan applications. As of the end of the quarter 201 farmers in Rubavu district had been appraised and UoB is optimistic that loans will be approved during January 2015 for disbursement in February 2015. Total estimated value to be disbursed is Rwf 100,500.000 (USD 145,441.39) to 201 farmers from two cooperatives (Tuzikamire Kabumba, Bugeshi Sector and Kabu-uragantunga, Busasamana Sector). From Kabumba 95 loan applications were received, 84 were positively appraised and of this number 75 are female applications. From Kabu 120 applied, 117 were positively appraised of which 40 are female. Important considerations for loan approval are consistent delivery of milk to the MCC and delivery of a minimum of 15 litres per day. In addition based on the above figures 57 % of the approved applicants are female.

UoB has been positive about the performance of loans disbursed to small holder dairy farmers in September 2014 and repayments have been commenced as per loan requirements commencing in December 2014. Loan value disbursed in the previous quarter in Rubavu district was 41.5 million Rfr. Continued successes in loan repayments will encourage UoB to expand availability of these activities to new districts during 2015. UoB has already an interest in doing so in Southern and Eastern provinces specifically.

Table 5: Amount of loans given to dairy actors

Milk Shed	District	Value of loans (USD)	Value of loans (Rwf)	Number of borrowers		Total value of dairy Investment (USD)	Total value of dairy Investment (in Rwf)
North	Rubavu	24,742.86	17,320,000	3		24,742.86	17,320,000
North	Nyabihu	10,000.00	7,000,000	1		10,000.00	7,000,000
North	Musanze	4,714.29	3,300,000	1		321,381.29	224,966,900
North	Rulindo	13,285.71	9,300,000	3		13,285.71	9,300,000
North	Gicumbi	2,142.86	1,500,000	7		80,714.29	56,500,000
South	Ruhango	714.29	500,000	2		714.29	500,000
South	Huye	11,428.57	8,000,000	1		11,428.57	8,000,000
South	Gisagara	11,842.86	8,290,000	16		11,842.86	8,290,000
<b>TOTAL</b>		<b><u>78,871.43</u></b>	<b>47,650,000</b>	<b>34</b>		<b>474,109.86</b>	<b>79,750,000</b>

## Gender Mainstreaming

As in previous quarters gender mainstreaming was a key component that was executed and observed in all the project activities.

In model farmer training during the last quarter the participation of female farmers was estimated to be as high as 60 % in some locations. This was due to the fact that trainings held at village level closer to the farmers with flexibility to adapt to the convenient time for farmers, get a higher level of female participation.

This high level of participation was noted in several sectors including cells in Kamyoni and Kicukiro. More detailed analysis across all sectors will be carried out in the next quarter tabulating exact female attendance at all model farmer activities.

RDCPII has continuously engaged women owned businesses (such as milk sellers, services providers, cheese company owners, cuisine chefs, among them) and ensured that women as well as their male counterparts benefit from the project's daily activities.

## Grants updates and Grant Monitoring

During this quarter RDCP II provided sub-awards to 11 MCCs located in 6 districts as described below with the dairy and transportation equipment to facilitate in the milk transportation, to improve the quality of milk and to increase milk production. The in-kind grant include: milk cans, milk cooler tank and tricycles.

**Table 6: List of grant recipients**

<b>NO.</b>	<b>Organization</b>	<b>District</b>
1.	Cooperative des Eleveurs de Kayenzi (COOPEKA)	Kamonyi
2.	Cooperative Uruhimi Rwizihiye Rukoma	Kamonyi
3.	Cooperative Amizero y'Aborozi	Kamonyi
4.	Cooperative Giramata Mworozu	Nyanza
5.	Cooperative Gwizumukamo Busoro	Nyanza
6.	Cooperative y'Aborozi Ba Ndego (COABONDE)	Kayanza
7.	Mubari Farmers Cooperative Society (MUF COS)	Kayanza
8.	Rwimbogo Dairy Cooperative (RDC)	Gatsibo
9.	Kibondo Farmers Cooperative (KFC)	Gatsibo
10.	Cooperative Agiragitereka	Musanze
11.	Cooperative Bwera Ntoma Rutungu Tworore (BNRT)	Nyagatare

#### **Subawards close-out and extension**

- 5 subaward agreements ended in October and November 2014 for the following organizations:
  - Veterinary Yield Entrepreneurs Cooperative (VYEC)
  - Angeana Fresh Dairy Ltd
  - Cooperative Gasabo Zirakamwa
  - University of Rwanda/ College of Agriculture, Animal Sciences and Veterinary Medicine – Nyagatare Campus
  - University of Rwanda/ College of Agriculture, Animal Sciences and Veterinary Medicine – Busogo Campus
- RDCP II extended by three months the subaward agreement with Codecol to give them opportunity to properly use their grant equipment.
- RDCP II extended by 12 months its subawards agreement with 12 artificial insemination service providers. The reason for this extension is with the shortage of heat synchronizing hormones and semen in 2014 they needed more time to complete outstanding activities and to increase the target of farmers who will benefit from AI services.

RDCP II conducted regular visits to the existing subgrantees to monitor activity progress with regard to milk quantity changes, environmental compliance, milk quality improvement, and market linkages.

#### **Monitoring & Evaluation and Knowledge Management**

For M&E department, the first two months of the quarter focused on program annual reporting and setting program targets for 2015 and 2016.

Four different reports were compiled and submitted:

- Program Narrative 4th Quarterly/ 2014 Annual Report
- USAID /AIDtracker 2014 report
- USAID / FTFMS 2014 report
- USAID / TRAINET 2014 report

For AIDtracker, it was the first time for the program to report in the system as it was introduced to USAID partners in April 2014, while FTFMS system has been used since January 2013.

TRAINET system, which captures training related results, has been used since 2012.

Despite minor issues identified in reporting for AIDTRACKER system, in general 2014 reporting process was smoother than 2013.

During the Last quarter, RDCP II was engaged in the process of setting new targets for 2015 and 2016. Contrary to the usual target setting process based on PMP, this year targets were based on the last two years achievements with the assumption that the coming years will follow the same trend. Reason why targets set are much higher than the ones in the PMP, especially for farm level indicators where higher achievements are expected as result of program scaling up approach.

Also during the quarter, a field follow up survey was conducted on all 302 model farmers trained in 2014 to assess progress made in dissemination of improved technologies at farmer level. As mentioned in paragraphs under IR 1.1.1 above, the results realized so far are tremendous. But it was noticed that the process of compiling information, reporting and data quality control at the level of model farmers takes level takes a long time. In the coming quarter, more efforts will be put in making the model farmer activity reporting system more formalized and efficient.

## Challenges and lessons learned

- The legal registration and certification process for RNDP has taken much longer than anticipated. Bureaucratic processes for the acceptance as a legally registered body by the Ministry of Public Service and Labour are responsible for this delay. However, the leadership of RNDP with guidance from PSF, the Rwanda legal reform commission and the Rwanda cooperative agency are hopeful this is coming to the end with the award of registration expected in the next quarter.
- Additionally, while the process to approve and gazette the Ministerial instructions on milk handling has been slow, it is steadily getting to a conclusion. It is anticipated that they will receive a cabinet approval to be gazetted in this quarter.
- On the farmer/supplier end, there have been consistently delayed payments from large processors leading to disgruntled suppliers finding an alternative buyer. While this is a short-term measure to satisfy the financial needs of farmers, it lends a blow to the growing formal sector as it makes it less competitive in timely payments. RDCP II will continue to commit time and resources to encourage processors to indulge with financial institutions to make this relationship a sustainable one.
- While RDCP II has trained and equipped service providers and model farmers to train smallholder farmers, the challenge is to integrate them in the upcoming “Twigire Muhinzi” national extension system which will have a village level component, regrettably, the genesis of this new addition to the national extension system has been slow.
- A key RDCP II activity, AI delivery to vulnerable households for increased milk production, has been hampered by lack of heat synchronization hormones at Rwanda Agriculture Board (RAB); however, RAB has assured RDCP II that when the hormones are available its service providers will be allocated some doses.
- Despite efforts to promote concentrate feed use in dairy to achieve higher cow milk yields, on a majority of the farms the low milk to feed price ratio does not justify investment in concentrate feeding; nevertheless, RDCP II has been exploring low cost feed ingredients options to reduce the final concentrate cost.

## Annex I: FtFMS Table

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
<b>4.5(2): Number of jobs attributed to FTF</b>	<b>9,152</b>	<b>11,652</b>	<b>9,191</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,191</b>	<b>9,191</b>
Location	9,152	11,652	9,191	0	0	0	9,191	9,191
Urban	0	0	0	0	0	0	0	0
Rural	9,152	11,652	9,191	0	0	0	9,191	9,191
Disaggregates Not Available	0	0	0	0	0	0	0	0
New/Continuing	9,152	11,652	9,191	0	0	0	9,191	9,191
New	8,822	2,500	39	0	0	0	39	39
Continuing	330	9,152	9,152	0	0	0	9,152	9,152
Disaggregates Not Available	0	0	0	0	0	0	0	0
Sex of job-holder	9,152	11,652	9,191	0	0	0	9,191	9,191
Male	8,414	9,914	8,429	0	0	0	8,429	8,429
Female	738	1,738	762	0	0	0	762	762
Disaggregates Not Available	0	0	0	0	0	0	0	0
<b>4.5(10): Total increase in installed storage capacity (m3)</b>	<b>46</b>	<b>50</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>66.50</b>
Dry storage	0	0	0	0	0	0	0	0
Cold storage	46	50	8	0	0	0	8	66.50
Disaggregates Not Available	0	0	0	0	0	0	0	0
<b>4.5.2(5): Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance</b>	<b>15,422</b>	<b>14,000</b>	<b>1,125</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,125</b>	<b>16,547</b>
New/Continuing	15,422	14,000	1,125	0	0	0	1,125	16,547
New	10,635		1,125	0	0	0	1,125	16,547
Continuing	4,787		0	0	0	0	0	0
Disaggregates Not Available			0	0	0	0	0	0
Sex	15,422		1,125	0	0	0	1,125	16,547
Male	9,749	10,000	847	0	0	0	847	10,596
Female	5,673	4,000	278	0	0	0	278	5,951
Disaggregates Not Available	0	0	0	0	0	0	0	0
<b>4.5.2(7): Number of individuals who have received USG supported short-term agricultural sector productivity or food security training</b>	<b>16,037</b>	<b>18,000</b>	<b>2,341</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,341</b>	<b>26,895</b>
Type of individual	16,037	18,000	2,341	0	0	0	2,341	26,895

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
Producers	15,492	17,650	1,653	0	0	0	1,653	25,419
People in government	45	300	0	0	0	0	0	119
People in private sector firms	499	50	688	0	0	0	688	1,355
People in civil society	1	0	0	0	0	0	0	2
Disaggregates Not Available	0	0	0	0	0	0	0	0
Sex	<b>16,037</b>	<b>18,000</b>	<b>2,341</b>	0	0	0	<b>2,341</b>	<b>26,895</b>
Male	10,359	12,000	1,193	0	0	0	1,193	17,126
Female	5,678	6,000	1,148	0	0	0	1,148	9,769
Disaggregates Not Available	0	0	0	0	0	0	0	0
<b>4.5.2(13): Number of rural households benefiting directly from USG interventions</b>	<b>16,031</b>	<b>34,532</b>	<b>26,855</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26,855</b>	<b>26,855.00</b>
New/Continuing		<b>34,532</b>	<b>26,855</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26,855</b>	<b>26,855</b>
New	16,031	10,000	2,323	0	0	0	2,323	0
Continuing	0	24,532	24,532	0	0	0	24,532	0
Disaggregates Not Available	0	0	0	0	0	0	0	0
Gendered Household Type	<b>16,031</b>	<b>34,532</b>	<b>26,855</b>	0	0	0	<b>26,855</b>	<b>26,855</b>
Adult Female no Adult Male (FNM)	2,908	6,362	4,520	0	0	0	4,520	4,520
Adult Male no Adult Female (MNF)	1,831	3,362	2,388	0	0	0	2,388	2,388
Male and Female Adults (M&F)	11,292	24,808	19,765	0	0	0	<b>19,765</b>	19,765
Child No Adults (CNA)	0	0	182	0	0	0	182	182
Disaggregates Not Available	0	0	0	0	0	0	0	
<b>4.5.2(14): Number of vulnerable households benefiting directly from USG interventions</b>	<b>5,277</b>	<b>13,152</b>	<b>9,979</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,979</b>	<b>9,979</b>
New/Continuing		<b>13,152</b>	<b>9,979</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,979</b>	<b>9,979</b>
New	<b>5,277</b>	4,000	827	0	0	0	827	0
Continuing		9,152	9,152	0	0	0	91,521	0
Disaggregates Not Available	<b>0</b>	0	0	0	0	0	0	
Gendered Household Type	<b>5,277</b>	<b>13,152</b>	<b>9,979</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,979</b>	<b>9,979</b>

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
Adult Female no Adult Male (FNM)	1,141	3,683	2,506	0	0	0	2,506	2,506
Adult Male no Adult Female (MNF)	528	882	614	0	0	0	614	614
Male and Female Adults (M&F)	3,608	8,587	6,777	0	0	0	6,777	6,777
Child No Adults (CNA)	0	0	82	0	0	0	82	82
Disaggregates Not Available	0	0	0	0	0	0	0	0
<b>4.5.2(23): Value of incremental sales (collected at farm-level) attributed to FTF implementation</b>	<b>\$23,865,088.56</b>	<b>\$26,253,821.40</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$28,471,223.56</b>
<b>FTF 4.5-4 : Gross margin per dairy cow</b>	<b>\$185.96</b>	<b>\$220.44</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$185.96</b>
<b>4.5.2(27): Number of members of producer organizations and community based organizations receiving HSC assistance</b>	<b>10,082</b>	<b>4000</b>	<b>192</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>192</b>	<b>18,549</b>
Type of organization	0		0	0	0	0	0	0
Producer organization	10,082	4,000	192	0	0	0	192	18,548
Non-producer-organization CBO	0	0	0	0	0	0	0	1
Disaggregates Not Available	0	0	0	0	0	0	0	0
Sex	<b>10,082</b>	<b>4,000</b>	<b>192</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>192</b>	<b>18,549</b>
Male	5,999	3,000	99	0	0	0	99	11,545
Female	4,083	1,000	93	0	0	0	93	7,004
Disaggregates Not Available	0		0	0	0	0	0	0

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
<b>4.5.2(28): Number of private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance</b>	<b>526</b>	<b>904</b>	<b>819</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>819</b>	<b>819</b>
Type of organization			819	0	0	0	819	819
Private enterprises (for profit)	346	773	601	0	0	0	601	601
Producers organizations	32	103	111	0	0	0	111	111
Water users associations	1	1	1	0	0	0	1	1
Women's groups	142	2	2	0	0	0	2	2
Trade and business associations	2	21	101	0	0	0	101	101
Community-based organizations (CBOs)	3	4	3	0	0	0	3	3
Disaggregates Not Available	0	0	0	0	0	0	0	0
New/Continuing	0	904	819	0	0	0	819	819
New	526	150	65	0	0	0	65	65
Continuing	0	754	754	0	0	0	754	754
Disaggregates Not Available	0		0	0	0	0	0	0
<b>4.5.2(29): Value of Agricultural and Rural Loans</b>	<b>\$600,016.96</b>	<b>\$700,000.00</b>	<b>\$78,871.43</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$78,871.43</b>	<b>\$708,739.14</b>
Type of loan recipient	600,017	700,000	78,871.43	0	0	0	78,871	708,739
Producers	205,153	200,000	46,357	0	0	0	46,357	251,510
Local traders / assemblers	260,168	280,000	26,000	0	0	0	26,000	286,168
Wholesalers/processors	124,255	200,000	6,514	0	0	0	6,514	160,620
Others	10,442	20,000	0	0	0	0	0	10,442
Disaggregates Not Available	0	0	0	0	0	0	0	0
Sex of recipient	600,017	700,000	78,871.43	0	0	0	78,871	708,739
Male	327,933	400,000	33,334	0	0	0	33,334	361,267
Female	23,212	100,000	4,737	0	0	0	4,737	27,949
Joint	248,872	200,000	40,800	0	0	0	40,800	319,523

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
n/a	0	0	0	0	0	0	0	
Disaggregates Not Available	0	0	0	0	0	0	0	
<b>4.5.2(36): Value of exports of targeted agricultural commodities as a result of USG assistance (for bilateral missions)</b>	<b>\$14,919,659.69</b>	<b>\$16,411,626.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$22,016,489.69</b>	
<b>4.5.2(37): Number of MSMEs, including farmers, receiving business development services from USG assisted sources</b>	<b>5,185</b>	<b>5,000</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,543</b>	
Size of MSME	<b>5,185</b>	<b>5,000</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,543</b>	
Micro	5,123	4,900	38	0	0	0	6,377	
Small	62	80	23	0	0	0	154	
Medium	0	20	4	0	0	0	12	
Disaggregates Not Available	0	0	0	0	0	0	0	
MSME Type	<b>5,185</b>	<b>5,000</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,543</b>	
Agricultural producer	4,563	4,900	5	0	0	0	5,685	
Input supplier	38	0	10	0	0	0	63	
Trader	497	80	37	0	0	0	637	
Output processors	86	20	12	0	0	0	124	
Non agriculture	0	0	1	0	0	0	33	
Other	1	0	0	0	0	0	1	
Disaggregates Not Available	0	0	0	0	0	0	0	
Sex of owner	<b>5185</b>	<b>5000</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,543</b>	
Male	3,016	3,200	34	0	0	0	3,917	
Female	1,930	1,800	21	0	0	0	2,377	
Joint	239	0	10	0	0	0	249	
n/a	0	0	0	0	0	0	0	
Disaggregates Not Available	0	0	0	0	0	0	0	





Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
Custom Indicator 1.3 a: Number of new products awarded SOQ	19	8	0	0	0	0	19	
Custom Indicator 1.3 b: Percentage of milk marketed under SOQ	40%	20%	56%	0	0	0	40%	
Custom Indicator 2.1 a: Number of dairy related firms and organizations newly aligned within and provided a voice by dairy sector affinity organizations	58	70	0	0	0	0	70	
Custom Indicator 2.2 a : Number of dairy enterprises with upgraded production facilities resulting from successful financing applications	71	600	0	0	0	0	72	
Custom Indicator 2.2 b : Liters of additional daily milk processing resulting from financing assisted by RDCP II	61,871	30,000	73,622	0	0	0	73,622	
Number of promotional and educational events/program on dairy consumption implemented/conducted	11	10	0	0	0	0	11	
Number of people reached during the milk consumption promotional campaign	200,000.00	200,000		0	0	0	200,000	

Indicator / Disaggregation	2014 Annual Achievement	2015 Target	2015 Results				2015 Annual Achievement	Cumulative Achievement for all previous years
			Quarter 1 Oct-Dec 2014	Quarter 2 Jan-Mar 2015	Quarter 3 Apr-Jun 2015	Quarter 4 July-Sept 2015		
Percentage of consumers that are aware of nutritional and health benefits of milk	0	50%	0	0	0	0	0	
GNDR-2 : Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)	38%	50%	49.2%	0	0	0	49.2%	
GNDR-3 : Proportion of females who report increased self-efficacy at the conclusion of USG supported training/programming	76%	80%	0	0	0	0	76%	
GNDR-4 : Proportion of target population reporting increased agreement with the concept that males and females should have equal access to social, economic, and political opportunities	84%	80%	0	0	0	0	84%	

# UBUZIRANENGE BW'AMATA

Amata ni ikinyobwa gifite akamaro ntagereranywa ariko cyangirika vuba, niyo mpamvu tugomba kwita ku isuku no ku buziranenge bwayo bityo umusaruro w'amata m'uRwanda ukaba ntamakemwa. Ibi bireba buri wese uhereye kuri nyir'inka, umukamyi, umucunda, ukora ku ikusanyirizo ry'amata, uyacuruza, kugera k'uyanywa. Menya rero aya makuru akurikira y'ibyo ugomba gukora kugirango ugeze ku banyarwanda amata yujuje ubuziranenge.

Niba wifuza kugira umukamo mwinshi kandi wujuje ubuziranenge kora ibi:

## GUFATA NEZA AMATA NYUMA YO GUKAMA



## UMUCUNDA



MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES



FOR THE AMERICAN PEOPLE

LAND O' LAKES, INC.

OPERATIONAL ASSISTANCE PROGRAM



Rwanda Dairy Competitiveness Program II



## SHISHA WUMVA

Nywa amata ugire ubuzima bwiza



# GUFATA NEZA AMATA NYUMA YO GUKAMA



Umukamyi n'umucunda bagomba kubahiriza isuku rusange y'amata



Kuyungururira amata mu bicuba bisukuye hakoreshejwe akayunguruzo kabugenewe katagwa umugese kandi gafite isuku.



Koresha tanki ikonjesha iyo utwaye amata menshi



Amata yashyizwe mu bicuba byabugenewe bitagwa ingese ashobora gutwarwa ku igare, ku ipikipiki cyangwa mu modoka vuba bishoboka

**UMUCUNDA**

## **SHISHA WUMVA**

Nywa amata ugire ubuzima bwiza



# UBUZIRANENGE BW'AMATA

Amata ni ikinyobwa gifite akamaro ntagereranywa ariko cyangirika vuba, niyo mpamvu tugomba kwita ku isuku no ku buziranenge bwayo bityo umusaruro w'amata m'uRwanda ukaba ntamakemwa. Ibi bireba buri wese uhereye kuri nyir'inka, umukamyi, umucunda, ukora ku ikusanyirizo ry'amata, uyacuruza, kugera k'uyanywa. Menya rero aya makuru akurikira y'ibyo ugomba gukora kugirango ugeze ku banyarwanda amata yujuje ubuziranenge.

Niba wifuza kugira umukamo mwinshi kandi wujuje ubuziranenge kora ibi:

## IBISABWA MBERE YO GUKAMA



Ikiraro gisukuye neza n'inka zifite ubuzima bwiza



Umukamyi agomba kurangwa n'isuku igihe agiye gukama



Umukamyi agomba kugira aho gukarabira intoki



Kutagira inzara ndende



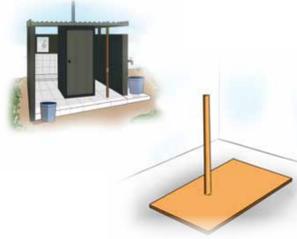
Kirazira: Kwitsamura, gucira cyangwa gukorora ahagereye ibikoresho by'amata



Kirazira: Kunywera itabi ahagereye amata cyangwa ibikoresho byayo



Ugomba guhora usa neza, utibagiye imyambaro yawe



Ubwiherero bugomba kuba bwitaruye, busukuye kandi bupfundikirwa

## ISUKU Y'IBIKORESHO



Gukoresha ibyansi byo gukamiramo byabugenewe bitagwa umugese kandi byoroshye koza



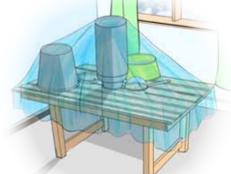
Kwoza neza ibikoresho n'amazi meza n'isabune cyangwa n'imiti yo koza yabugenewe



Kunyuguzza neza n'amazi ashushye ibyansi n'ibicuba by'amata



Kuranga ibikoresho n'ibyansi ku gatandaro



Gutereka ibyansi n'ibikoresho ahantu hasukuye kandi bipfundikiye

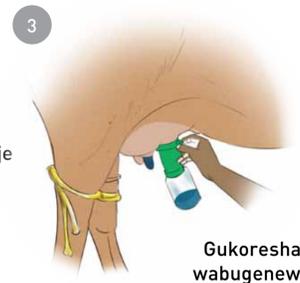
## GUKAMA



1 Koza icebe n'amabere neza ukoresheje amazi meza y'akazuyazi



2 Kumutsa icebe n'amabere ukoresheje igitambaro gisukuye neza



3 Gukoresha umuti wabugenewe kwica mikorobe ku mabere y'inka mbere yo gukama



4 Guhanagura umuti ku icebe n'igitambaro gisukuye neza mbere yo gukama



5 Gukamira urushunzi rwa mbere mu gikoresho cyabugenewe hanyuma ukayabogora



6 Gukama inka ukayihumaza neza



7 Gukinga amabere y'inka ukoresheje umuti wabugenewe

## UMWOROZI

## UMUKAMYI



MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES



Rwanda Dairy Competitiveness Program II



**SHISHA WUMVA**  
Nywa amata ugire ubuzima bwiza



# UBUZIRANENGE BW'AMATA

Amata ni ikinyobwa gifite akamaro ntagereranywa ariko cyangirika vuba, niyo mpamvu tugomba kwita ku isuku no ku buziranenge bwayo bityo umusaruro w'amata m'uRwanda ukaba ntamakemwa. Ibi bireba buri wese uhereye kuri nyir'inka, umukamyi, umucunda, ukora ku ikusanyirizo ry'amata, uyacuruza, kugera k'uyanywa. Menya rero aya makuru akurikira y'ibyo ugomba gukora kugirango ugeze ku banyarwanda amata yujuje ubuziranenge.

Niba wifuza kugira umukamo mwinshi kandi wujuje ubuziranenge kora ibi:

## GUFATA NEZA AMATA NYUMA YO GUKAMA

Umukamyi n'umucunda bagomba kubahiriza isuku rusange y'amata



Kuyungururira amata mu bicuba bisukuye hakoreshejwe akayunguruzo kabugenewe katagwa umugese kandi gafite isuku.



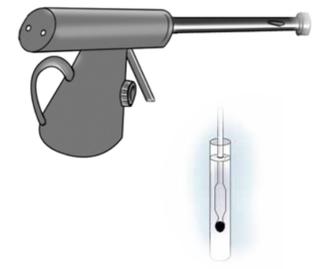
## IBISABWA KU IKUSANYIRIZO RY'AMATA



Ikusanyirizo rigomba kuba risukuye kandi rifite ibikoresho bikwiye



Ikusanyirizo rigomba kugira ahogukarabira intoki, hari amazi meza n'isabune yabugenewe



Ikusanyirizo rigomba kugira twuma dupima umubanyi ndetse n'amazi yongewe mu mata



Koresha tanki ikonjesha iyo utwaye amata menshi



Amata yashyizwe mu bicuba byabugenewe bitagwa ingese ashobora gutwarwa ku igare, ku ipikipiki cyangwa mu modoka vuba bishoboka



Ikusanyirizo rigomba kugira abakozi bahugukiwe mugupima amata kandi bafite icyemezo cy'ubuzima bwiza



Ikusanyirizo rigomba kugira ibyuma bikonjesha amata ku gipimo cya 4° C



Icyuma mu ikusanyirizo kigomba guhora gisukuye neza

UMUCUNDA

IKUSANYIRIZO



## GUKAMA



1 Koza icebe n'amabere neza ukoresheje amazi meza y'akazuyazi



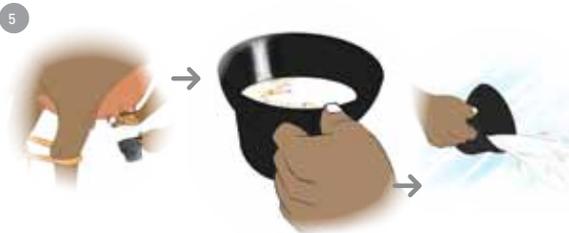
2 Kumutsa icebe n'amabere ukoresheje igitambaro gisukuye neza



3 Gukoresha umuti wabugenewe kwica mikorobe ku mabere y'inka mbere yo gukama



4 Guhanagura umuti ku icebe n'igitambaro gisukuye neza mbere yo gukama



5 Gukamira urushunzi rwa mbere mu gikoresho cyabugenewe hanyuma ukayabogora



6 Gukama inka ukayihumuza neza



7 Gukinga amabere y'inka ukoresheje umuti wabugenewe

## UMUKAMYI

**SHISHA WUMVA**  
Nywa amata ugire ubuzima bwiza



shishawumva



@ShishaWumva

## UBUZIRANENGE BW'AMATA

Amata ni ikinyobwa gifite akamaro ntagereranywa ariko cyangirika vuba, niyo mpamvu tugomba kwita ku isuku no ku buziranenge bwayo bityo umusaruro w'amata m'uRwanda ukaba ntamakemwa. Ibi bireba buri wese uhereye kuri nyir'inka, umukamyi, umucunda, ukora ku ikusanyirizo ry'amata, uyacuruza, kugera k'uyanywa. Menya rero aya makuru akurikira y'ibyo ugomba gukora kugirango ugeze ku banyarwanda amata yujuje ubuziranenge.

Niba wifuza kugira umukamo mwinshi kandi wujuje ubuziranenge kora ibi:

## IBISABWA MBERE YO GUKAMA



Ikiraro gisukuye neza n'inka zifite ubuzima bwiza

## UMWOROZI



**SHISHA WUMVA**  
Nywa amata ugire ubuzima bwiza

## ISUKU Y'IBIKORESHO



Gukoresha ibyansi byo gukamiramo byabugenewe bitagwa umugese kandi byoroshye koza



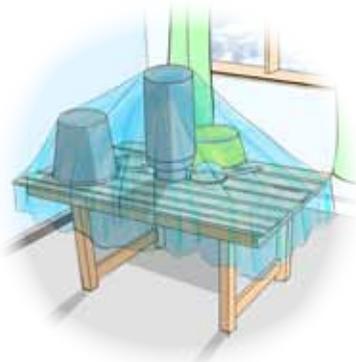
Kwoza neza ibikoresho n'amazi meza n' isabune cyangwa n' imiti yo koza yabugenewe



Kunyuguzwa neza n'amazi ashyushye ibyansi n'ibicuba by'amata



Kuranga ibikoresho n'ibyansi ku gatandaro



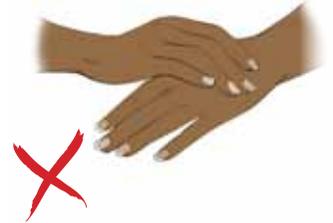
Gutereka ibyansi n'ibikoresho ahantu hasukuye kandi bipfundikiye



Umukamyi agomba kurangwa n'isuku igihe agiye gukama



Umukamyi agomba kugira aho gukarabira intoki



Kutagira inzara ndende



Kirazira: Kwitsamura, gucira cyangwa gukorora ahegereye ibikoresho by'amata



Kirazira: Kunywera itabi ahegereye amata cyangwa ibikoresho byayo



Ugomba guhora usa neza, utibagiwe imyambaro yawe



Ubwiherero bugomba kuba bwitaruye, busukuye kandi bupfundikirwa