

# Zambia Dairy Transformation Programme

JUNE 2020 NEWSLETTER



*Welcome to the latest edition of our monthly newsletter, which summarises activities carried out under the Zambia Dairy Transformation Programme (ZDTP) in June 2020.*

*Image: Maize stover being cut on Hellen Mubanga's farm near Kitwe, used for silage to demonstrate the benefits of forage-based dairy farming systems to other farmers.*

## Progress being made on diversifying income sources

An agro shop that will supply farm inputs to Bamakasi farmers should be in place later this year, with several other income diversification initiatives receiving technical support from the ZDTP also under development. As mentioned in our last newsletter, we held workshops across our six target dairy cooperatives earlier in 2020 to better understand Board members' plans beyond the term of the ZDTP.

Participants were asked to develop a vision for their cooperative in December 2022, i.e. twelve months after the ZDTP finishes in December 2021. Some said they wanted to open agro shops to support Milk Collection Centre (MCC) activities through the sale of inputs such as salt, molasses and teat dip and other items like solar lights and bicycles. Such shops could also provide services such as hiring out choppers or tractors so cooperatives/MCCs are not solely reliant on milk incomes.

Marvellous Chansa, the ZDTP's Business Support Officer for Central Province, has been working closely with members of the Bamakasi Dairy Cooperative Union to develop a business plan for an agro shop and information centre. "This will help farmers access inputs and information put together in fact sheets and other tools. Marvellous is currently supporting the cooperative to draft rules and regulations to govern the agro shop venture and its implementation.

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## New fact sheets available on ZDTP website

We have added three new fact sheets to the ZDTP website, covering how to make maize stover silage with molasses, information on zero grazing units and designing a milking parlour. We are also currently developing another fact sheet on making stover silage with mealie meal. You can find all the fact sheets at <https://www.zambiadairy.com/fact-sheets>. Please feel free to share the link with any farmers or dairy cooperative members who you know may benefit from them.

## Study Tour participants join forces to share skills and knowledge



Two participants from the ZDTP study tour to New Zealand in March have been busy demonstrating the benefits of forage-based dairy farming to others.

Jedrine Mushili, a Veterinary Assistant for MFL in Luanshya in the Copperbelt, and Hellen Mubanga (pictured left), a farmer and Board member for the Kwanshama Dairy Cooperative Union, made over 11,000 kilograms of silage between them in June using maize stover collected from different fields, with support from ZDTP Extension Officers Wesley Chilambe and Linda Moono.

Some of the silage was made on Hellen's farm near Kitwe and some was made on Margaret Chikoti's farm in Fisenge.

Jedrine says before the study tour to New Zealand she had already been encouraging farmers to invest in pasture and forage production during the rainy season to ensure they had food for the dry season. This is because preserving fodder by making silage, balage or hay is a great way for farmers in Zambia to reduce their cost of production or 'COP'.

Hellen, who lives near Kitwe, has a herd of 30 animals and also saw the value of fodder production after taking part in the study tour. As well as silage, she is now also making home-made 'Dairy 19' as another way of reducing her COP. "We rely so much on Dairy 19 and formulated feeds in Zambia, creating unnecessary expenses that can be avoided," she told the ZDTP. "By focusing on silage and pasture development, we can farm profitably and responsibly with our resource limits."

Linda says it has been great to see farmers from different parts of the Copperbelt (i.e. Kalulushi, Chililabombwe and also within Kitwe) visiting Hellen's farm to learn about how she is managing her dairy farming business. Many are not members of the Kwanshama Dairy Cooperative Union, which has been working with the ZDTP since 2017. Hellen has been sharing what she has learned from ZDTP activities as well as distributing the programme's fact sheets.

"Farmers are helping to spread the word, and this is good as it shows how farmers value the information and advice they get from the ZDTP," Linda says. "It is also interesting to learn that farmers are spreading the word not only amongst themselves (i.e. cooperative members), but also to farmers who we do not work with day to day."

## Questions from the field

Question: ZDTP Extension Officer Beatrice Mwilima

*New Zealand dairy farmers practice once-per-day milking. How possible is it to practice once-per-day milking with the types of breeds we have in Zambia? And what could be the possible effects?*

Answer: ZDTP Dairy Farm Management Specialist Jørgen Henriksen

Milking once per day will normally reduce your overall milk production by around 10 per cent.

If a cow is producing less than 8-10 litres a day (combining the amounts from both the morning and evening milking sessions), then the yield reduction from adopting once-a-day milking could be less than 1 litre.

If your cow is producing more than 15-20 litres per day, then once a day milking could reduce the milk yield by at least 2-3 litres per day.

Once-a-day milking is not recommended during the first 100 days after calving, as your cow is increasing its production from day to day during this phase. This increase will be reduced by milking only once a day.

If you want to get most of your milk in the morning for delivery to your MCC, it is possible to increase the time between your evening and morning milking sessions, e.g. milk at 2pm (14 hrs) in the afternoon and then 7am (7 hrs) in the morning.

Evening milk could then be consumed by your household, which would save the cost and hassle of storing milk in a cool place overnight.



*Beatrice Mwilima*



*Jørgen Henriksen*

### What is once-a-day (OAD) milking?

Once-a-day (OAD) milking is the practice of milking cows only once during a 24-hour period. This differs from the traditional twice-a-day (TAD) milking regime. OAD milking can be used either strategically (long-term) as the overall farming system or tactically as a short-term response to adverse seasonal conditions.

Reasons to consider OAD milking. The advantages of OAD milking depend on your farm system or layout e.g. long distances walked by cows.

- Less time spent milking cows
- Reduce staff pressure
- Feed shortage
- Stock health (lame cows, light cows, heifers, milk-fever prone cows)
- Reproduction (non-cyclers, heifers or whole herd in a feed shortage)
- Small dairy shed for herd size
- Farm layout (walking distance to shed)

Source: DairyNZ



## MFL sets up two new MCCs

The number of MCCs has continued to grow in Zambia in the past decade – and now there are two more, thanks to a collaboration between dairy industry stakeholders. Solomon Fwamba, a Livestock Technician with MFL, says his organisation saw “great potential” for establishing MCCs in Mumbwa District after analysing the results of a survey conducted there in 2017. “It is estimated that over half of the domestic annual consumption of milk in Zambia is produced by smallholder farmers,” he says. “However, Mumbwa District has not contributed much in the growth of the dairy sector.” To change this, MFL and DAZ facilitated the set-up of two new MCCs: Senzo Milk Collection Centre, located in the Myooye Veterinary Camp, and Sempe Milk Collection, located in the Mumbwa Central Veterinary Camp. Solomon, through MFL, also helped with the formation of the Mumbwa Dairy Association in 2018. Following this, the cooperative settled on Varun Foods and Beverages Limited as the off taker for the milk collected by the MCCs. The Southern African Development Community (SADC) funded two 3,000 litre milk chillers for the centres and Musika also provided assistance. Solomon says the Sempe MCC is tracking particularly well, with an increase in milk collected there from 4,342 litres in the second quarter of 2020 to 11,487 litres in the third quarter. “The number of farmers delivering milk to the centre increased from two to five [in that time].” In contrast, the MCC in Senzo is receiving only small amounts of milk. “Most of the farmers [supplying Senzo] are still milking beef cattle which cannot give them substantial amounts of milk,” Solomon says. In addition, the smallholders are still relying on natural pastures, “which negatively affects the flow of milk to the milk collection centres during the dry season”.



*Above: Mr Mutelo pouring milk into the tank at Sempe MCC.*

*“The annual consumption of milk in Zambia is about 25 litres per capita. This is well below the level of 200 litres recommended by the WHO and FAO. For this reason, the Government of Zambia recently put the dairy sector high on the national development agenda.”*

Solomon Fwamba, Livestock Technician, MFL

## Progress being made on diversifying income sources

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“So far, we have helped them develop the guidelines, responsibilities for office bearers, structure and communication plan.” Marvellous says it is important to “get it right” in terms of the governance structure to ensure the venture “runs smoothly”. This includes establishing clear operations procedures for the segregation of duties, accounting records, and auditing methods. “This will help promote consensus and reduce grievances when they arise in a proper fashion.” He is also supporting Board members to prioritise a list of dairy inputs that could be stocked in the shop by using a range of criteria including profitability and applicability for farmers. He expects the Bamakasi venture to be in place by the end of 2020. In the meantime, other cooperatives are also developing their input supply businesses. For example, Kwanshama Dairy Union sell stock feed and teat dip to their members and farmers associated with Fisenge Dairy Business Cooperative Union are able to access a range of items on credit, including Buffalo bicycles which are available through a pay-as-you-go scheme. The ZDTP is also supporting the Chibombo Dairy Cooperative Union to operationalise its solar hammer mill and implement good governance mechanisms through a ‘club’ set up to administer this business venture.

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**The ZDTP is focused on supporting dairy farmers to improve their productivity, milk quality and linkages to urban markets. The views expressed in this publication are those of the implementers of the programme and do not necessarily reflect those of the New Zealand Government. For further information, please contact ZDTP Country Manager Tania Thomson on [tania@primeconsultants.net](mailto:tania@primeconsultants.net) or +260 96 456 4206.**