

# Zambia Dairy Transformation Programme

SEPTEMBER 2019 NEWSLETTER



*Welcome to the latest edition of our monthly newsletter, which summarises activities carried out under the Zambia Dairy Transformation Programme (ZDTP) in September 2019.*

*Left: Farmers listen as ZDTP Field Extension Manager Kelvin Mulusa demonstrates how to make a testing reagent for mastitis using Sunlight detergent.*

## Practical information for the modern smallholder farmer

*By Tania Thomson*

One of the key aspects of the ZDTP is our ethos of promoting continued learning and information sharing. Last year, as an aid to our extension work with smallholder farmers, we started to develop fact sheets providing practical advice to farmers on topics we'd been discussing. At first, these focused on silage production, but as we've had time to get to know farmers better and the challenges they face, the range of titles has expanded. The extension team are now using these practical farm advice fact sheets in their extension work, as a basis for the training/field days we've been holding and as a way for farmers to refer back to the tips and advice we've been sharing. For those of you who have visited the ZDTP stand at many of the agricultural shows we've exhibited at over the past 12 months, or attended some of our demonstrations, you may already have some of these titles. For those who have not, we've now put them on our newly launched website at [zambiadairy.com](http://zambiadairy.com). The titles cover: making silage and home-made concentrates; feeding strategies for the different life stages of dairy animals; reproduction; business management, general health and management and milk quality. All the topics come from the farm level and our extension team are central to ensuring they link to what is/should be happening on the farm and include solutions to problems farmers are struggling with. More titles are under development and we are also producing 'tools' which can be easily used by farmers. For example, one of the fact sheets covers how to weigh a cow to support correct feeding and administration of medications and is accompanied by a weight conversion chart. The fact sheets on sunflower and soya bean production include recipes for making home-made concentrates and the heat detection fact sheet includes suggestions as to why animals may not be showing signs of heat, as well as a calendar to help farmers anticipate when to look for signs. We invite you to visit [zambiadairy.com](http://zambiadairy.com), where you can download copies of the fact sheets and find copies of past newsletters. As always, we're happy to receive feedback on these tools, suggestions for additional topics and/or to hear how they may have been useful for you in your own dairy business.

Happy dairying!

**Tania and the rest of the ZDTP team**

## In brief

Improving on-farm milk quality will be a key focus of extension activities over the coming months, as mastitis is expected to become more prevalent in the wet season. This is due to the increase in mud, difficulties keeping cattle udders and equipment clean, plus moist humid environments in which bacteria thrive. Practical information for mastitis prevention and management is now available at [zambiadairy.com](http://zambiadairy.com).

## Reflecting on the ZDTP more than two and a half years into the programme

By Tania Thomson

The ZDTP continues to work closely with individuals linked to approximately 500 farming households in Bamakasi, Chibombo, Liteta, Fisenge, Kwanshama and Mufulira. Just over two and a half years into the programme, we are proud to be making solid progress in supporting farmers, their family members and workers to make small changes which are resulting in improved performance of their dairy businesses.

As a means of monitoring progress of the programme and validating some of the stories we've been sharing in the newsletters, we carry out a census-style survey in May and June every year.

We've just finished reporting back our findings to the relevant Dairy Cooperative Union Boards, with the expectation that they'll use this information to support the development of their cooperatives over the coming 12 months. In terms of our own performance, we are happy to note that as of May 2019, 65 per cent of farming households (313 households) have implemented one or more of the ZDTP-promoted good dairy farming practices.<sup>1</sup>

The biggest changes have been in:

- Keeping farm records, from 21 per cent of households in 2018 to 32 per cent in 2019;
- Adoption of a rapid mastitis test (based on Sunlight dishwashing liquid) to detect subclinical cases of mastitis by 63 farmers; and
- Silage production being carried out by 17 per cent of farmers by May 2018 compared with 28 per cent by May 2019.

During the last year, the farmers we work with have, on average, seen their feed costs (a major cost of dairy farming) increase by nine per cent, whilst labour costs (another major cost) have remained static.

Despite this, due to both improved record keeping and improved management, we have seen a trend of farmers adopting one or more of these practices seeing improvements in their gross profits, with an average monthly gross profit of an 'adopter' being ZMW 2,329 which is 30 per cent above that of the average smallholder farmer in the six cooperatives (ZMW 1,787).

During the past year, we've also seen increases in the number of female animals (adult, heifers and calves) that our extension advice covers. This is both through developments of farmer herds plus some new members joining cooperatives. This amounts to a 51 per cent increase from the 2,143 female animals recorded in 2017 to 3,243 in 2019.

While the improvements highlighted above are promising for the future profitability of the smallholder dairy industry in Zambia, there is still work to be done for farmers to plan for the development of their herd, i.e. understanding the importance of having 'one calf per animal per year' and optimising lactation yields of animals in order to maximise lifetime production. Herd development will be strongly emphasised during the final two years of the programme.



*Chibombo farmers estimating the weight of a cow during a Focus Farm field day.*

<sup>1</sup> Practices include: production of silage, production of home-made concentrates, reduced feed wastage through the use of home constructed feed troughs, using a rapid mastitis test based on Sunlight dishwashing liquid, business management through the Real-Time Monitoring initiative, or any other practices promoted through our series of 30 fact sheets and adopted since the farmer has been working with the ZDTP.

## Expanding the reach of the ZDTP through supporting other farmers

Aleck Mwanza never knew what silage was but through the guidance of ZDTP Extension Officer Chisanga Sikaundi, he has learnt not only what it is but also how to make it.

Mr Mwanza met Mr Sikaundi at the Provincial Agricultural Show in Chisamba in 2018, when he saw silage on the ZDTP stand and asked Mr Sikaundi what it was.

Mr Sikaundi explained how the affordable animal feed was made and described what crops could be used and how to feed it to animals.

Mr Mwanza then invited Mr Sikaundi to his farm in Chikuse, about 30 kilometres away from Kabwe, to demonstrate how to make it.

Despite it being outside of the ZDTP's target area, Mr Sikaundi obliged and provided guidance during visits to Mr Mwanza's farm in March, April and July.

Mr Mwanza, who cares for one dairy animal (a pure Jersey) that supports a household of six, met the costs of sowing his own maize and sorghum seeds (as well a bit of pigeon pea and red sun hemp). He also ploughed and prepared his own fields and dug his own silage pit.

Mr Sikaundi brought Mr Mwanza the ZDTP chopper when it was time to harvest the crops and prepare them for ensiling. About 30 people from Chikuse took part in a demonstration when it was time to prepare the pit, including local DAZ, Parmalat and MFL officers.

Mr Mwanza says he opened the pit to feed the silage to his animals in July – during the dry season, a time when he has struggled to feed his animals in the past. He says his animal liked eating it from the get-go.

“Though we started feeding [silage] towards the end of the lactation stage, we observed that milk production increased from 3 litres to 5 litres.”

Mr Mwanza says he now understands the importance of fodder preservation and conservation.

“It improves the body condition [of animals] through the nutrients that are conserved in the crops.” He says silage is also a convenient way to feed his animal when he is too busy to let it out to graze.

Mr Sikaundi says it is great to see Mr Mwanza's animal looking healthy. He is pleased that other farmers from Chikuse are now also interested in making silage.

He says he has already been talking with Mr Mwanza about making a concrete silage pit for next season to avoid a small issue he had with termites eating through the plastic in his pit.

“Aleck will provide the bricks, labour and sand and the ZDTP will provide the cement.”



*Mr and Mrs Mwanza with their dairy cow and two of their children.*

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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.**