

Zambia Dairy Transformation Programme

FEBRUARY 2021 NEWSLETTER



Welcome to the latest edition of our monthly newsletter, which summarises activities carried out under the Zambia Dairy Transformation Programme (ZDTP) in March 2021.

Left: Bamakasi farmer Mr Naluli Sibeso making silage on his farm.



"Now we're in our final year of the ZDTP, it's rewarding for the team to see the continued increased adoption of silage making and the resulting financial and production benefits being achieved by farmers - as well as the improved condition of their animals."

*- Programme Country Manager
Tania Thomson*

An update from our Programme Country Manager

I am pleased to say the ZDTP continues to make solid progress in supporting small-scale dairy farmers in its target areas to adopt practices to improve the efficiency of their dairy business, reduce Cost of Production (COP) per litre of milk produced and improve their financial position. Findings from our Year Four Annual Benchmarking Survey (ABS), covering 482 farming households, indicated that 71 per cent of these households had implemented one or more of the ZDTP-promoted good dairy farming practices by May 2020. These practices included making silage and home-made concentrates, regular use of the Sunlight Rapid Mastitis Test (RMT) and improved business record keeping. We've also seen farmers adopting improved feeding and management practices reducing their COP with actual values dependent on herd size, breed, management system and location. This decrease is against a background of increasing feed production costs due primarily to national increases in fuel and energy costs, demonstrating that improving the efficiency of a small-scale dairy business (e.g., reducing feed loss through use of feed troughs/racks; production of silage and concentrates on-farm and use of farm records) is essential to ensuring profitability. Reduced feed costs and improved record-keeping have also contributed to improvements in some farmers' overall financial position. This is allowing them to invest profits in improving their livelihoods, for example, investing in education for their children, purchasing a forage chopper to support silage making or expanding or diversifying their farming businesses.

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An update from our Programme Country Manager

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Irrespective of farm size and location, the main staple for cows during the dry season continues to be silage. This year silage production is being promoted both using silage pits and silo bags. Bags offer farmers a handy option of producing discrete amounts of silage that can be fed to their animals. They are portable, can be easier to manage than a pit and don't require the on-farm labour needed to dig pits. They are also resistant to termites.



Above: ZDTP Livestock Feeds and Forage Specialist Kalipochi Kawonga with silage bags on a dairy farm in Bamakasi. Bags were provided by Packaging Industries Limited (PIL), based in Kenya. Further information on the bags is available at <https://pil.co.ke/product/mama-silage-bag/> or on their Facebook page.

Making silage using silo bags

Silage is made by fermentation of fresh fodder that is high in sugars. It can be made in pits, drums or silo bags. Maize, sorghums and Napier/Bana grass, in that order, are the preferred silage crops in Zambia. The fermentation of fresh fodder happens under anaerobic conditions (i.e. when the air has been removed). This is easily achieved with silo bags.

Other benefits of silo bags include:

- Bags require less labour than a pit
- Bags are relatively easy to transport within and between farms
- Reduced soil contamination of the silage
- No loss of nutrients through seepage
- Bags open up the possibility for farmers to sell silage in bags to cattle owners

Take care not to puncture the bag during the ensiling or storage stage, as a hole in the bag will cause air to enter and spoil the silage.

For more information, check out fact sheet *F01E – Making Silage Using Silo Bags* at <https://www.zambiadairy.com/>.

Other fact sheets on making, managing and feeding silage are also available.

Farmer spotlight: Mr Naluli and Mrs Cecellia Sibeso

Growing maize for chopping up and feeding to his dairy animals seemed wasteful to Mr Naluli and Mrs Cecellia Sibeso at first. After all, maize is a staple food for most Zambian households – including their's. But after feeding silage to their six dairy animals, the Bamakasi farmers soon appreciated the benefits. "After the first attempt, or second, one will discover that silage is very, very beneficial to animals," says Mr Sibeso. "An animal must be adequately fed. Then it will give you a better yield. It is like a vehicle. You cannot move a vehicle without fuel." Other people still say it seems odd to feed cows maize, rather than saving it for their family. Mr Sibeso's answer? "The milk which is produced from the animals ... will give you more money than [just using] maize to feed the family. It's very, very profitable. When I started making silage [in 2018], my animals were producing 8-12 litres each. Eventually I went up to 14 litres per animal." Making silage does not come without challenges; however. Mr Sibeso says the labour required is immense. "It [requires] a lot of effort, [but] if you cultivate one hectare, it really will benefit [you]." ZDTP Extension Officer Chisanga Sikaundi recently helped Mr and Mrs Sibeso ensile 21m³ of silage. The process took three days. "First, we ensiled in plastic bags and then on the third day we finished with the silo pit." Mr Sikaundi says it was "hard work indeed" but pleasing that Mr and Mrs Sibeso wanted to make more silage than in the previous year, "because of the benefits they have seen". To see a video interview with Mr Sibeso, please go to <https://vimeo.com/539455364>.



"When I started making silage [in 2018], my animals were producing 8-12 litres each. Eventually I went up to 14 litres per animal."

- Bamakasi farmer Mr Naluli Sibeso



Above: Mr Sibeso and his wife, Cecellia.

Left, top: Mrs Sibeso with a pile of maize ready for chopping and ensiling.

Left, bottom: A bird's eye view of silage making at Mr and Mrs Sibeso's farm.



Mr Sibeso carries maize to the silage pit to be chopped.



Using a drum filled with water to remove air pockets.



ZDTP Extension Officer Chisanga Sikaundi operates a fodder chopper while making silage.



Covering the silage pit with plastic to prevent air and water getting in.

‘MCC Manager’s Tool’ piloted in the Copperbelt

In addition to the ZDTP’s continued focus on improved governance through working with cooperative Boards, our Business Support Officer (BSO) in the Copperbelt, Charles Zimba, has been working with three Milk Collection Centre (MCC) Managers in the region to support them to carry out their roles effectively. To help with this, Mr Zimba has developed a ‘Dairy Cooperative Assessment Tool’. The tool can be used to assess the compliance of MCCs with legislation in Zambia and gauge if the cooperative has everything in place to support the smooth running of the cooperative and MCC. The tool was piloted in Kwanshama in February 2021 during a Managers’ training session. During the assessment, a number of potential improvements were identified and these will be addressed over the coming months. The training session also offered the ZDTP an opportunity to look at the progress made by these three Managers since May 2019, when an initial manager’s workshop was held in Mufulira. It was pleasing to hear that of 23 issues identified in 2019 as hindering MCC performance, more than half had improved or been fully resolved. To support managers to address some of the remaining issues without creating additional work, the ZDTP has developed some reporting templates for MCC Managers to use in relation to monthly activities, milk volumes, milk quality and financial reporting. These templates will be trialled during the remainder of 2021, with support from Mr Zimba. We’ll keep you updated on progress and will be happy to share once we’re confident they are supporting the Managers to ‘worker smarter not harder’.

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 or +260 96 456 4206.