

Zambia Dairy Transformation Programme

JUNE 2021 NEWSLETTER



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

Left: Mufulira farmer Stan Ngosa: "I grow enough maize to sustain [my milking] animal and with the help of the ZDTP, my [animal's] milk production has increased."

Farmer spotlight: Stan Ngosa

Stan Ngosa started farming in the 1970s after a period working in the mining industry, initially farming cattle in the North-Western Province of Zambia.

It wasn't until Stan took over his late sister and brother-in-law's farm in Mufulira in the Copperbelt that he got into dairy farming.

In 2013, Stan was gifted a five-month-old dairy animal through a donor-run scheme; however, he struggled with feeding and caring for the cow at first.

"We were taught about silage but [we] didn't know how to make it nor did we know how to make concentrates," he says.

"It was difficult getting feed in the dry season because we didn't know how to go about it and so our animals were dying."

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Farmer spotlight: Stan Ngosa

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"I encourage my friends to not give up because success doesn't start immediately but takes time - just like in school [when] one starts from grade one and with hard work you can become a business owner. Those who want to join dairy farming as a business should be open minded and be ready to learn from those that have the knowledge."

- Stan Ngosa

Stan says things improved once the ZDTP came along in 2017 when he was able to learn "detailed" and "practical" skills about how to take care of his dairy animal – "like feeding, making sure it rests well [and] hygiene".

He learnt how to make silage and home-made concentrates, during practical demonstrations run by ZDTP Extension Officers, which he says helps during the dry season when feed is not easy to find. He now has two male and three female cows; however, only one female produces milk.

"I grow enough maize to sustain [my milking] animal and with the help of the ZDTP, my [animal's] milk production has increased."

Stan was also taught about milk hygiene, the importance of keeping business records for looking back and planning ahead and how to make a shelter for his animals and a silage pit.

"We [now] grow our own maize and soya and make our own Dairy-19 from the farm. I'll never go to buy it from anywhere [now] because that's a waste of money," he says.

"I keep records of milk production per day, how much money I've made from milk sales at the MCC and even sales from the roadside are recorded including litres. I also record any milk that goes off due to delays in delivery and sum the total at the end of the month. Expenses towards the dairy business are also recorded so that I can see if I've made any profit or loss."

Stan's advice to his fellow farmers is to "just concentrate and apply what you learn".

"I encourage my friends to not give up because success doesn't start immediately but takes time – just like in school [when] one starts from grade one and with hard work you can become a business owner," he says.

"Dairy business is good because it gives you money every day in that you milk your cows every day... and this is all with one cow... what if I had ten? Then I would be in a position to employ people."

"Those who want to join dairy farming as a business should be open minded and be ready to learn from those that have the knowledge.

"They should be willing to work together because no one knows it all. What I want is for this farm to expand and [for] my cattle to multiply and I want my household to learn dairy farming in the event that I'm not around so that they can take over."

To see an interview with Stan Ngosa, visit <https://vimeo.com/580513915>.

Mitigating the risk to your animals from on-farm hazards

Dairy cows are valuable animals. As well as producing milk, they produce female calves for future production. As such, it is important to be aware of farm hazards that may harm your animals.

The death of a female animal, whether a calf, heifer or adult cow is a big loss to any dairy business.

It is both costly and unfortunate if a cow becomes sick and/or dies from something that could have been prevented.

Common farm hazards include:

- Eating metal objects (if these objects are sharp, they can pierce a cow's stomach wall, heart or other organs);
- Eating plastic and other rubbish (these sorts of items can get stuck in a cow's intestines);
- Calves being strangled by a tether rope (never put a rope around a calf's neck);
- Snake bites, which can be poisonous for cattle and are particularly harmful for pregnant cows; and
- Accidents, i.e., animals falling in ditches or getting electrocuted.

When it comes to mitigating the risk from on-farm hazards, prevention is the answer.

Here are some measures you can take:

- Keep your farm tidy and clean of rubbish and metal objects;
- Identify hazards on your farm (i.e., ditches, lagoons) and fence them off;
- Keep cattle in well-fenced areas;
- Keep grass around cattle areas short to reduce access by snakes and other wild animals;
- Keep calves in a calf pen and provide them with feed and water;
- Only buy feed from reputable sources and remove any dangerous objects;
- Feed cattle in troughs and racks, i.e., not from the floor;
- Ensure cattle have a balanced diet so they don't scavenge; and
- Check on your animals regularly so you or a veterinary professional can intervene and treat them promptly should they need it.

For more information, see *Fact Sheet H08 – On Farm Hazards* at <https://www.zambiadairy.com/fact-sheets>.



Improving farm handling facilities

Handling cattle safely is important to avoid stress and injury to both cattle and their human handlers.

A lack of suitable handling facilities on farms in Chibombo and Liteta has led the ZDTP to co-fund four 'model' handling facilities on farms in these two areas.

The pens are constructed from locally available materials which should allow other farmers to build similar structures.

The facilities have a holding pen which leads into a short race / crush.

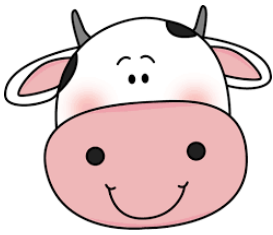
Neighbouring farmers are encouraged to use these facilities if they don't have their own.

Use of these facilities should make vaccinating, spraying, Artificial Insemination, testing for brucellosis and tuberculosis and other management procedures safer for handlers, owners, vets and other service providers.

A less stressful experience for cattle will contribute to improved cattle health and welfare.

For further information, please contact ZDTP's Field Extension Manager, Kelvin Mulusa, on +260 963 723 368.

Did you know?



The energy requirements for a cow growing a calf during the last 2 months of development are similar to the cow producing 2 litres of milk per day!

Diseases around calving time

Female calves are your future milking animals. That's why it is important to give them (and any other animals for that matter) the best start possible.

Ensuring your calves are healthy starts before they even enter the world – in the womb.

Cows are pregnant for around 283 days (about 10 months), with the pregnancy divided into three periods or 'trimesters'.

Most of your calf's total weight gain and growth – about 75 per cent – takes place in the last trimester, which is the final 3 months.

This is also when the calf's lungs develop.

Because of this, it is extremely important that farmers feed their pregnant cows well in the last 2-3 months before calving.

The mother needs energy to keep herself healthy while the calf grows.

Pregnant cows can get diseases before and after calving.

This is due to a mismatch between the energy and minerals required to keep the pregnant cow healthy, grow its calf and for the production of milk after calving.

Common diseases are:

- ❖ Milk fever (Hypocalcemia); due to low calcium in the blood after calving;
- ❖ Ketosis (Acetonaemia); due to a negative energy balance (more energy is being used than is being eaten);
- ❖ Grass tetany (Hypomagnesaemia); due to low magnesium in the blood; and
- ❖ Fatty liver syndrome; due to excess fat in the liver.

You will probably be able to tell if your cow has a disease because they will seem different from normal (see fact sheet *H01 – Are Your Cattle Healthy?* at zambiadairy.com/fact-sheets for signs of a normal, healthy cow).

Depending on the disease, you might notice the following changes in behaviour and milk production:

- ❖ Milk fever: Muscle tremors, lying down and not wanting to get up, characteristic 'S shape' while lying down, impacted rectum.
- ❖ Ketosis: Poor appetite, refusal to eat concentrates, reduced milk production, dull / depressed, smell of ketones around cow's head.
- ❖ Grass tetany: Excitability and frightened look in the eyes, overfat cows, reduced milk production.
- ❖ Fatty liver syndrome: Too fat at calving, rapid loss of body condition, drop in production, poor appetite, relapsing milk fever.

Cows that suffer from diseases around calving time are also more susceptible to other early lactation conditions such as retained placenta, mastitis and metritis.

These conditions affect fertility meaning it can take longer for your cow to get pregnant in future.

Treatment costs, such as vet fees and medicines, can also add up.

That's why prevention is so important.

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Preventing diseases around calving time

Feeding

A key way to prevent diseases around calving time is to ensure you are feeding your pregnant animals properly throughout their pregnancies.

To help with this, you can separate your cows into groups (e.g., heifers, milkers, dry cows, late pregnancy cows) and feed them according to their production stages.

All cows (not just pregnant ones) should have access to roughage, such as silage, hay or grass, at all times, including at night.

This keeps the cows' stomachs working.

You could also try using a feed trough or rack to avoid or reduce feed wastage.

Always ensure your feed is of good quality so that it is tasty for your cows to eat.

Remember - your cows should ALWAYS have access to clean water to drink!

Housing

Ensuring your animals have suitable housing is another way to avoid diseases around calving time.

Make sure your pregnant cows are in a clean and dry place 2-3 days before and after calving.

This will help to reduce the risk of infection of the uterus.

Observing your animals

To stay ahead of the game, check your cows every day for signs of ill health.

Look at the condition of their body and adjust their feed accordingly.

Pay extra special attention to cows in the late stages of pregnancy and soon after calving.

Remember, cows should be 'fit but not fat' at the time of calving.

If you have concerns about your cow's health, contact your local veterinary officer.

For more information, see fact sheet *H07 – Diseases Around Calving Time* at zambiadairy.com/fact-sheets.



Above: Calves in Central Province. Female calves are your future milking animals, so it's important to give them (and any animal) a good start in life.

- ❖ For more information on feeding heifers, see fact sheet *F05*.
- ❖ For more information on feeding cows in the last month of pregnancy and milking animals see fact sheet *F02*.
- ❖ For more information on feed planning for optimum milk production, see fact sheets *F06* and *F06A*.
- ❖ For information on calf feeding, see fact sheet *F04*.

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.