



REDUCING COST OF PRODUCTION

AIM: TO PROVIDE GUIDANCE TO FARMERS HOW TO MINIMISE COST OF PRODUCTION PER LITRE OF MILK.

1. What is Cost of Production (COP)?

- COP is the **amount of money spent to produce 1 litre of milk.**
- **FEED** and **HIRED LABOUR** are two main costs for dairy farmers.

2. How do you calculate cost of production?

1. Add up all your expenses (feed, labour, animal health, transport, etc) that relate to your dairy business for one month;
2. Record the litres of milk produced during the month;
3. Divide the Total Expenses (ZMW) by litres of milk to get the COP. E.g.

Monthly expenses (ZMW)	
Feed	478
Animal health	95
Labour	150
Transport of milk	50
Transport of inputs	25
Total	798

Litres of milk produced during the month = **422 litres**

$$\text{COP} = \frac{\text{Monthly Expenses}}{\text{Litres of milk produced}} = \frac{798}{422} = 1.89 \text{ ZMW / litre}$$

3. Tracking COP on a monthly and annual basis

- COP changes as costs and milk volumes change.
- There will be times when COP is higher, e.g.
 - when you have more dry cows, and a lower production from your herd;
 - if your cows give low milk yields, e.g. towards the end of lactation;
 - if you're feeding expensive concentrates to a low producing cow, or animal which isn't milking (bull, dry cow);
 - if you buy expensive feed during the dry season;
 - if your animal is sick and needs treatment.
- If you keep records, you can track changes over time and find ways to reduce COP.



Successful dairy farmers ensure their COP is less than the price they sell their milk for to maximise their profit.



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4. What can you do to reduce your cost of production?

1. **Produce your own feed**, e.g. fresh maize or sorghum silage to provide quality roughage to your cows;
 - ☺ Cheaper than buying from outside;
 - ☺ You have roughage to feed during the dry season;
2. **Make concentrates** from protein (soya beans, sunflower) and energy (maize);
 - ☺ Cheaper than buying from outside;
 - ☺ Readily available at the farm and can reduce transport costs;
 - ☺ Feeding concentrates in the first 3 months of lactation enhances milk production if the cow is well fed with good quality feed.
3. **Avoid wasting** feed, hay and silage by making hay and feed troughs.



Making fresh maize silage



Home-made concentrates



Home-made feed trough with silage



Feed trough with concentrates

4. **Use good management practices**, e.g. vaccinations, tick prevention and regular testing for mastitis. When animals are well kept you:
 - ☺ Reduce the cost of drugs because of minimal disease outbreaks.
 - ☺ Can identify animals with mastitis, change your management practices and treat early, thus reducing treatment costs and potential long-term damage to udders.
 - ☺ Expect a calf every year which will keep you in business.
 - ☺ Have good quality heifers which have their first calf before 2.5 years of age.



Animal in good body condition



Sunlight as a Rapid Mastitis Test

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 on zdtpinfo@primeconsultants.net. Follow us on www.zambiadairy.com, Facebook (facebook.com/zambiadairy/) and Twitter (@DairyZambia).