



HEIFER REARING

Note the advice in this fact sheet has been tailored towards smallholder farmers in Zambia who can find it challenging to get animals to calve at 24 months of age.

AIM:	Calving Age: 30 Months
	Calving Weight: 350 - 400 Kg ¹ (About 75 % of full body weight).
	Growth Rate: 500 Grams (G) per day

Advantages of good heifer management:

- ✓ Cows gain required weight to have their first calf by 30 months;
- ✓ This provides the potential for increased herd numbers over time;
- ✓ Animals which are in good condition at first calving should milk well. This contributes to increased lifetime milk production;
- ✓ Animals which are in good condition at first calving should calve easily, if they have been mated to an appropriate bull;
- ✓ Can help to plan activities (e.g. breeding, feeding) to produce calves when fodder is available, e.g. calve during rainy season

FEED AND WATER REQUIREMENTS			
AGE (Months)	CONCENTRATE (Kg per day)	ROUGHAGE (Kg per day of free access)	
3 - 4	2.0	4	<ul style="list-style-type: none"> ✓ Free access to clean WATER available day and night; ✓ Feed roughage in a rack / trough to avoid wastage.
4 - 6	2.5	5	
6 - 9	2.5	10	
9 - 12	2.5	13	
12 - 15	3.0	15	
15 - 18*	3.0	18	
18 - 21**	3.5	20	

*Ovarian activity starts around a body weight of 250-300 Kg

** Mating at heat – AI (Artificial Insemination) or bull service

¹ Actual target weight at calving will be influenced by the breed of the animal.

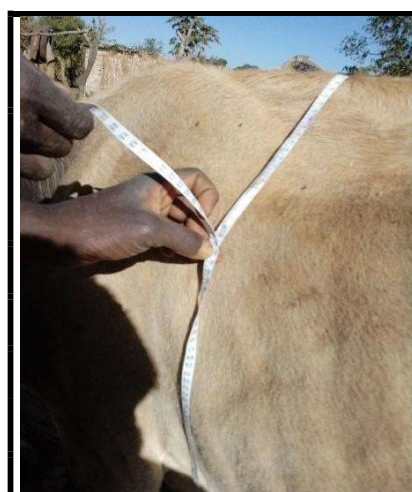


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IMPORTANT MANAGEMENT FACTS	
Good quality Roughage	10 MJ ME ¹ in 5 Kg feed (1 Kg Dry Matter), e.g. green maize, green maize silage, fresh young pasture
Weight at first calving	75 % of full Body Weight (approx. 350 – 400 kg)
400 kg heifer requirements	Maintenance: 47 MJ ME per day (e.g. 20 kg green maize silage) Growth (500 grams / day): 41 MJ ME per day (e.g. 3.5 kg concentrate as Dairy 19)
*Sexual maturity	Ovarian activity starts around 250-300 Kg body weight. Artificial Insemination (AI) should start at age of 20-21 months when heat is observed

¹MJ ME = Mega Joules of Metabolisable Energy

HEIFER BODY WEIGHT AND ENERGY NEEDS			
AGE (Months)	BODY WEIGHT (Kg)	WEIGH BAND (Cm)	DAILY NEED (MJ ME)
3 - 4	60 - 100	-	25
4 - 6	100 - 150	100	30
6 - 9	150 - 200	115	40
9 - 12	200 - 250	125	50
12 - 15	250 - 300	140	60
15 - 18	300 - 350*	150	70
18 - 21	350 - 400**	165	80



Using a weigh band to estimate body weight

*Ovarian activity starts around a body weight of 250-300 Kg

** Mating at heat – AI or bull service

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).