



KEEPING CALVES HEALTHY - OVERVIEW

AIM: HELP FARMERS RAISE HEALTHY CALVES

- ❖ Calves and heifers are your future milking animals. So it's important to look after them properly.
- ❖ By looking after them you aim to **stop them from dying**, help them to **grow well** and **maximise profitability** (lifetime milk volumes and their own calves).

So why do calves die?

- ❖ When calves are born their immune system and bodies are not fully developed.
- ❖ You need to help their bodies and immune system to become strong and prevent calves from getting any infections such as diarrhoea or breathing problems (pneumonia).

What can I do to help my calf become strong and healthy?

1. Once the calf is born make sure it is **breathing** well. Clean the nose and mouth to remove any mucus. Help the calf sit up and make sure its chest is moving freely.
 2. Spray the navel with a **7% solution of povidone iodine** to stop infections entering the calf's body. Check the navel after 3 days to make sure it has dried off. You can also use an umbilical cord clamp to help the navel dry up.
 3. Take the calf to a clean calf pen with dry bedding.
 4. Make sure the calf drinks **colostrum** as soon as possible after birth and definitely within 6 hours. The calf should drink 3-4 litres during this time.
 - Continue feeding 2-3 litres of colostrum in both the morning and afternoon. Do not feed more than 5% of the calf's birth weight per meal.
 - Give vitamin E/selenium or Vitamin AD₃E to calves that do not drink well.
 5. Feed the calf milk or milk replacer twice daily from Day Four.
- See [page 2](#) and [Fact Sheet F04: Calf Feeding](#) for more information on calf feeding.



Tips when giving colostrum

- ✓ The colostrum should be warm (body temperature / 39 °C).
- ✓ Give colostrum in a feeding bottle so you know how much the calf is drinking. Drinking directly from the dam may mean the calf is not getting enough.
- ✓ Use good hygiene when taking colostrum from the dam. See [fact sheet M01](#) for a reminder of [good milking practices](#).
- ✓ Use a clean bottle when feeding the calf.



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Calf feeding – more information in *Fact Sheet F04: Calf feeding*

- The calf's stomach (rumen) develops over the first few weeks of life.
- To help the calf develop properly:
 - ✓ Feed milk until 10 weeks of age – and **!REMEMBER!**, don't feed milk with antibiotics in it;
 - ✓ Feed good quality feed, e.g. best hay, fresh grass, or concentrate/calf pellets;
 - ✓ Make any changes to the diet slowly;
 - ✓ Feed in a trough off the ground to keep feed clean;
 - ✓ Clean out the trough regularly.
- Introduce calf starter between **5-10 days** with a handful of pellets and increase gradually.
- Wean the calf when it is able to eat **0.7kg-1kg of dry feed** on three consecutive days.
- Give the calf access to **clean fresh water** in a separate bucket 30min after feeding milk. Once the calf is eating fresh food, ensure clean water is always available.
- Give 20% more milk in the cold season.
- After weaning, do not change the feed for at least 14 days.
- Aim for daily gains of 700-750g per day and only feed best quality feed.



Trough on the ground – calves standing in the feed



Trough raised from the ground – the feed is keeping clean

Calf housing - see *fact sheet H05B – Calf housing*

- Keeping calves in warm, dry calf pens will help them to grow well. Their bodies can concentrate on growing, instead of keeping warm!

General calf care - see *H05C – Calf Care*.

- Remember to check calves twice per day for signs of ill health.
- Always look for calves which are weak, not able to drink, with a fever and not able to stand. Attend to these animals promptly.
- Calves should be:
 - **dewormed** (with white drenches such as Albendazole 7.5 or 10% e.g. Valbazen 7.5, Endospec 10%) against both round and tape worms at weaning and six months of age.
 - **vaccinated** against important diseases: clostridial diseases, brucellosis, respiratory diseases, BVD, ephemeral fever (three day stiff sickness).
- Discuss your health plan with your vet. See *H05A* for an example plan.
- **Dip** animals regularly from six months to reduce tickborne disease.
- ! If you have any concerns, contact your **local veterinary officer**.

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](https://twitter.com/DairyZambia)).



CALF HEALTH PLANNING

Example first year health care plan for calves / heifers

Vaccinations highlighted in pink. These should be given by your local vet or qualified animal health worker.

Deworming highlighted in green.

Cost estimations as at November 2022, not including veterinary charges.

SEASON/ PRODUCTION STAGE	AGE	INTERVENTION	EST COST (ZMW)	COMMENT
CALF	Day 0	Navel ill	0.17	Per calf
	Day 1	Dairy cow card	18.00	Per calf
	Day 0	Identification	13.00	One tag
	Day 0	Colostrum feeding	8.00	per L of milk
CALFHOOD VACCINATIONS AND TREATMENTS	1-2 months	Clostridial disease prevention	30.00	Plus, booster 4-6 weeks later
	3months	Vitamin and minerals	4.00	Routine supplementation
		Deworming	4.00	At weaning
WEANERS	4 months	FMD vaccination	19.00	Twice a year (May/Nov)- only done by government vets.
		Contagious abortion (<i>Brucella</i>)	23.50	Once only. Does not interfere with testing if given between 4-8 months of age
	5months	IBR, BVD, PI, BRSV ¹ , <i>Mannheimia haemolytica</i> (Prevention against <i>Viral and bacterial Pneumonia</i>)	40.00	Initial vaccination plus booster 1 month later (i.e. at 6 months old).
		Anthrax vaccination	0.75	Initial vaccination at 6 months. Followed by annual booster. This is often included in a Clostridial vaccine.
	5-6 months	Dipping	4.00	Dipping per animal (Every week)

¹ IBR = Infectious Bovine Rhinotracheitis; BVD = Bovine Viral Diarrhoea; PI = Persistent Infection of BVD; BRSV = Bovine Respiratory Syncytial Virus;



CALF HEALTH PLANNING

SEASON/ PRODUCTION STAGE	AGE	INTERVENTION	EST COST (ZMW)	COMMENT
SEASONAL DISEASES (LUMPY SKIN, Three Day Disease)	6 Months	Deworming	4.00	Remember to dose according to the animal's weight
		Vitamin and mineral supplementation	6.50	Weaners
	6-7 Months	Lumpy skin disease	32.00	Initial vaccine at 6 months of age, followed by booster vaccination one month later. Annual booster every Sep/Oct.
		Three-day stiff sickness	39.00	Initial vaccine at 6 months of age, followed by booster vaccination one month later. Annual booster every Sep/Oct.
YEARLING to BULLING	12 Months	Rumen magnet	42.00	To prevent reticulopericarditis (pieces of wire piercing the heart).

When giving any drugs to cattle, remember to:

- ! Buy from a reputable source – local vet or registered Agro Shop.
- ! Follow the instructions provided with the medicine, e.g. how to store it, expiry date, how to use it.
- ! Give the correct dose of any drug for the animal's weight. See *fact sheets H03 and H03A* for help to *estimate the correct weight of a cow*.
- ! Complete the whole course, e.g. to be effective some vaccines need an initial dose followed by a booster dose one month later.
- ! Safely dispose of needles, syringes, bottles and other. Make sure they cannot be accessed by children or animals.
- ! Check for any meat or milk withdrawal periods.
- ! And if you're unsure of anything, contact your local vet.

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