



LIVESTOCK HANDLER TRAINING MANUALS

MODULE 3: SEASONAL PLANNING

Dead teats



Protecting the udder of heifers to ensure the survival and growth of their future calves.

**ANIMAL HEALTH IS
IN OUR DNA**

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CONTENTS

Introduction	3
Signs of health that support good production	4
Signs of disease that cause severe and continued production loss	6
The disease development process that leads to lower weaning weight and loss of income	8
Daily observation	10
Closer examination	11
Prevention options to stop the losses caused by multi-host ticks	12
Treatment options and the cost of treatment	13
The prevention of teat damage in the context of the PAHC Model	14

Developed by Dr Danie Odendaal

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INTRODUCTION

This manual forms part of Afrivet's series on primary animal health care (PAHC) for small stock and has been developed to help the veterinarian, animal health technician, livestock owner and livestock handler to understand the methodology used when implementing PAHC and production management.

These manuals are ideally suited as practical training aids for training livestock handlers in the principles of planned production management, disease prevention and early disease identification.

The information contained in this manual is a summary of the material used by Afrivet Training Services for the formal training of animal health technicians, extension officers, livestock farmers and livestock handlers.

Developed by Dr Danie Odendaal

The prevention of teat and udder damage in replacement heifers by multi-host ticks is an essential part of primary animal health care that must be followed on every farm where these parasites occur

Multi-host ticks cause damage to the udder and teats of heifers and cows and the testes and sheaths of bulls.

On some farms, this is the most important cause of long-term reproductive and production losses, which **can't be treated** once the damage is done, but can be **prevented effectively**.

Prevention of teat and udder damage is one of the best examples of what can be achieved by implementing a PAHC approach, of which the livestock handler is the cornerstone.

The livestock handler needs to undertake weekly inspection of the udders of replacement heifers and treat them as needed to prevent the teat damage caused by multi-host ticks.

Signs of health that sup

SIGNS OF HEALTH

Good udder health starts with the management of the replacement heifer.

A clean udder with four functional quarters and teats producing 4 to 8 litres of milk per day, resulting in a fast-growing calf, is proof of good primary animal health care.



The cow's colostrum gives the calf resistance against diseases for at least the first three months of life, if the calf suckles within the first six hours after birth.

A calf showing a wagging tail while suckling on the cow is a sign of good health and adequate milk production.



Support good production

Milk is an essential source of nutrition for the young and growing calf until the big stomach (rumen) is fully developed at seven months of age, when it can effectively digest plant material.



The potential value of a healthy calf just after birth is the same as the value of a calf at weaning. The only difference is the seven months during which the calf must survive to gain on average 1kg per day.

The value of a calf at seven months is calculated by the weaning weight, multiplied by the current price paid per kilogram for calves, for example, **200kg x R30 = R6,000**

Signs of disease that cause severe

The loss of one or more quarters of the udder owing to damage caused by multi-host ticks resulting in “dead teats” is one of the most important causes of production loss in beef cattle.

This damage is permanent and is untreatable.



The production loss for **each dead teat** can easily be calculated:

- One to two litres less milk per day
- More than 200 litres less over the milk production (lactation) period of seven months (210 days)
- Calf weighs 40kg less at weaning
- Price obtained when selling the calf will be R1,200 (40kg x R30)
- Total loss over the productive lifetime production of the cow (six calves) is R7,200 (R1,200 x 6 calves)

re and continued production loss

A cow that doesn't produce milk from one or more teats after calving also affects the survival of her calf.

For each dead teat there will be a quarter less first milk (colostrum), compromising the protection transferred to the calf.

This calf's chances of survival until weaning are therefore reduced by 25%.

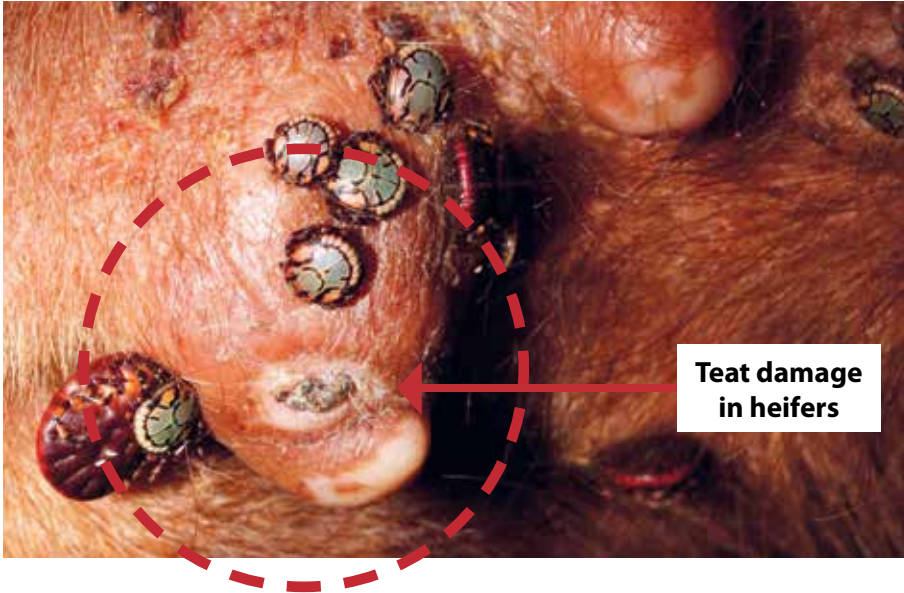
Any calf that dies between one day of age and weaning, equates to a loss of potential income of R4 080 as calculated previously.



Multi-host ticks also cause reproductive losses if they permanently damage the testicles of bulls or cause swelling and wounds on the sheath openings.

SIGNS OF DISEASE

The disease development lower weaning weight



Development of udder

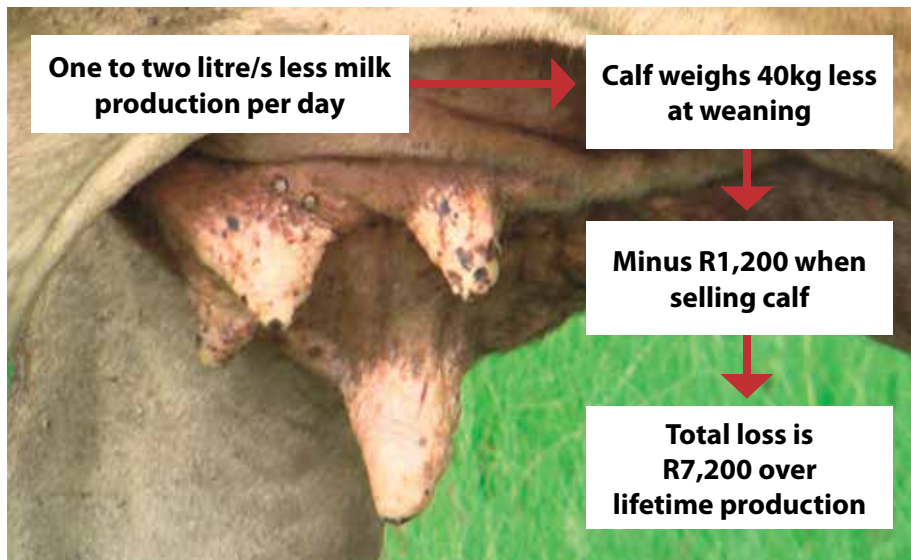
The damage caused by large-mouthed (multi-host) ticks occurs when the heifers are young and before they calve for the first time.



During this period, the teats are small and a bite wound will result in a relatively deep wound. When these wounds heal they form a hard lesion which can block the teat canal or teat opening permanently.

When the heifer calves for the first time the milk can't get out and the udder will stop producing milk in that particular quarter. In almost all cases, this damage can't be reversed.

nt process that leads to nt and loss of income



damage – “dead teats”

The loss of teats owing to tick damage in well-managed herds is less than 1%.

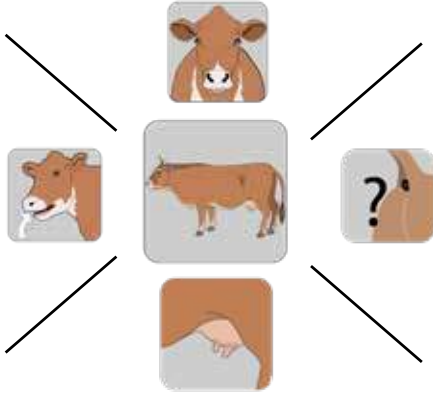
In herds where good tick control was not practised in heifers, more than 40% of heifers can have one or more “dead teats” after calving the first time.

This is one of the most important causes of production loss in badly managed herds.

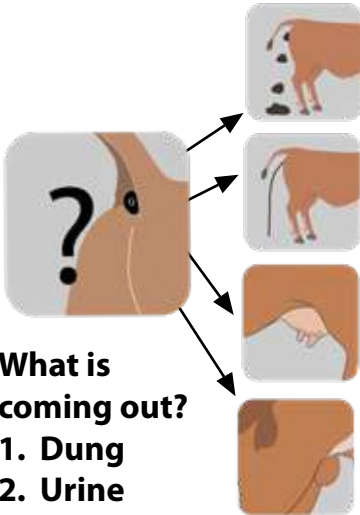
However, this is also one of the conditions that can be prevented by primary animal health care.

Daily observation

The most important action for the livestock handler is to observe all animals daily using the structured observation model.



The observation of the backside of the animal as used in the daily observation model.



What is coming out?

- 1. Dung**
- 2. Urine**
- 3. Milk**
- 4. Semen**

To identify an infestation by large-mouthed ticks, the observation model (developed by Afrivet) can be used. In this case the observation is focused on the areas where these ticks attach and cause damage.

These are the teats and udders of cows and testicles and sheath openings of bulls.

It is easy to check the absence or presence of large-mouthed ticks daily by observing the area under the tail, the udder and sheath opening of bulls, while checking for normal urination and defecation.

Daily observation of the colour and consistency of urine and dung is an important part of primary animal health care.

Closer examination

As soon as you see the first signs of disease, take a closer look at the affected animals.

In the case of heifers, you should do a closer inspection every week. This is done when there is an increase in parasites, normally during spring, summer and autumn.



It is easy to inspect for the presence of large-mouthed ticks on the udder and teats of heifers in a handling facility such as a crush pen, but difficult to do in the veld through observation from a distance while animals are grazing.

The livestock handler must bend down to check the small udder and teats hidden by the flank fold.

Prevention options to stop the losses caused by multi-host ticks

Prevent teat damage from large-mouthed ticks in replacement heifers from birth until first calving.

There are four basic approaches to disease prevention:

1. Increase general resistance



2. Increase specific resistance



3. Decrease exposure

The only option is to decrease exposure by early identification and immediate treatment.



4. Avoid exposure



Large-mouthed ticks are also called multi-host ticks because they complete the different stages of their life cycle on different animals.

Adult ticks feed on cattle, with the adult female ticks feeding and engorging in just one week.



Treatment options and the cost of treatment

Dipping remedies are the only option for controlling multi-host ticks.

- **Spraying the udder and teats with 100ml of dipwash.**
- **The cost of dipwash is 25c per litre or 2.5c per treatment.**

Direct contact between the dipping remedy and the ticks is needed to kill them.

Dipping remedies normally don't protect against a new tick infestation for more than a week after application.

For controlling multi-host ticks, apply the dipping remedy once a week during the ticks' active season.

Hand spraying and tick grease is a very effective localised treatment for the udders and teats of heifers.



*Eraditick 250, Reg. No. G3583 (Act 36/1947), Amitraz 25 % m/v

The cost of treatment

In many cases, people don't treat their herd because they think it is too expensive.

Example calculation for Eraditick 125:

Cost per litre (1 000ml) of dip concentrate = Approx R250

1ml of dip is used to mix 1ℓ of dipwash

Cost per 1ml of dip concentrate = 25c

To keep the udder and teats of heifers free from multi-host ticks, spray about 100ml of dipwash on the udder every week, which will amount to a nominal cost of 2.5c per treatment.

The cost for keeping the udders of heifers tick free (40 treatments) for a whole year is R1.

The prevention of teat damage in

SIGNS OF HEALTH

Daily observation

Normal daily observation from a distance focusing on the backside of the animals including the udder and teats.

The disease process



Udder damage – “dead teats”

Prevention

Prevent teat damage from the bites of large-mouthed ticks in replacement heifers from birth until first calving by ensuring they are always clean of ticks.

in the context of the PAHC model

Closer examination

Inspect the udder and teats of heifers weekly during the period when multi-host ticks are most active.



Occurs when replacement heifers are bitten by large-mouthed multi-host ticks.

Treatment

Regular dipping/spraying and the spraying of the udder and teats with 100ml dipwash.
The cost of dipwash is 25c per litre or 2.5c per treatment.

SIGNS OF DISEASE



TREATMENT OF EXTERNAL PARASITES WITH PLUNGE DIP/SPRAY

ERADITICK 125

Reg No. G583 (Act 36/1947)

Amitraz 12,5 % m/v

Controls ticks and kills lice and mange mites on cattle. Controls ticks, controls sheep scab mites and kill itch mites and goat mange mites on sheep and goats. Has a detaching effect on ticks. OXPECKER COMPATIBLE.



Spray: 1 L / 500 L water
Boost with 100 ml / 100 head after 400 head sprayed
Plunge (total replenishment): 1 L / 2 500 L water
Plunge (lime stabilised): 1 L / 500 L water



Plunge (fresh fill):
1 L / 375 L water



Plunge (fresh fill):
1 L / 375 L water

Withdrawal period:

Meat: 7 Days

Milk: None

Registration holder: ECO Animal Health Southern-Africa (Pty) Ltd Co. Reg. No.1992/000835/07



Packaging available

200ml, 500ml, 1L, 5L

TREATMENT OF EXTERNAL PARASITES WITH PLUNGE DIP/SPRAY

ERADITICK 250

Reg No. G4047 (Act 36/1947)

Amitraz 25 % m/v

Controls ticks and kills lice and mange mites on cattle. Controls ticks, controls sheep scab mites and kill itch mites and goat mange mites on sheep and goats. Has a detaching effect on ticks. OXPECKER COMPATIBLE.



Spray: 1 L / 1 000 L water
Boost with 100 ml / 200 head after 400 head sprayed
Plunge (total replenishment): 1 L / 5 000 L water
Plunge (lime stabilised): 1 L / 1 000 L water



Plunge (fresh fill):
1 L / 750 L water



Plunge (fresh fill):
1 L / 750 L water

Withdrawal period:

Meat: 7 Days

Milk: None

Registration holder: ECO Animal Health Southern-Africa (Pty) Ltd Co. Reg. No.1992/000835/07



Packaging available

500 ml, 1L, 5L, 10L

PATCH TREATMENT FOR THE CONTROL OF TICKS AT THE SITE OF APPLICATION.

ERADITICK GREASE

RSA Reg. No. G3667 (Act 36/1947)
Namibia SO V05/18.3.3/406

Deltamethrin 0,1% m/m, Piperonyl butoxide 0,5% m/m

Patch treatment for the control of ticks at the site of application.



Withdrawal period:

Meat: None

Milk: None



Packaging available

500g, 4kg

Registration Holder: Afrivet Business Management (Pty) Ltd, Co Reg 2000/011263/07