MILK BAR™

easy for you, healthy for them

Calf Feeders

Coburn®

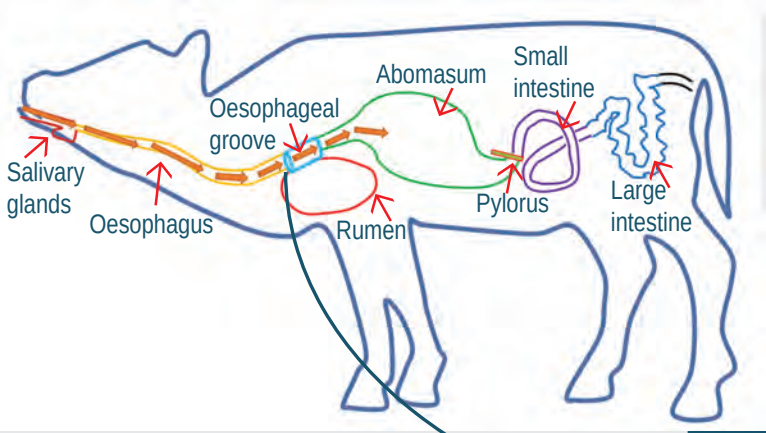
coburn.com

800 776 7042

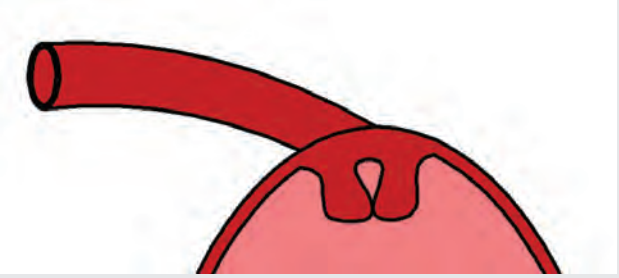
The calf's physiology

The calf's digestive system is geared to receive milk slowly from the cow.
When suckling, the calf's mouth creates both a positive (pushing down) and negative (sucking) pressure onto the teat. In this way, the calf can only swallow small sips of milk at a time.
She produces an abundance of saliva, vital to balance the pH in the abomasum for curding.
Saliva is rich in lactoferrin-lactoperoxidase, an enzyme system with antioxidant and antimicrobial properties that boost the immunity and improves the protection of the calf.

Feeding with a controlled milk flow (cow or Milk Bar™ Teat)



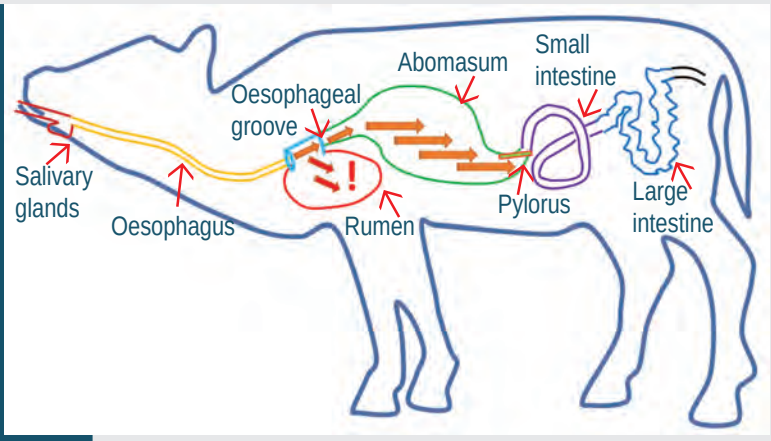
- Milk and saliva slowly enter the oesophagus.
- The controlled flow protects airways from milk.
- The oesophageal groove closes to protect the rumen from milk.
- The pH neutral mixture of milk and saliva enters the acidic abomasum and forms a curd.
- Lactose is absorbed into the bloodstream.
- The 'sugar free' curd passes into the intestines for nutrient absorption.
- The extended drinking time satisfies the suckling instinct to reduce cross suckling.



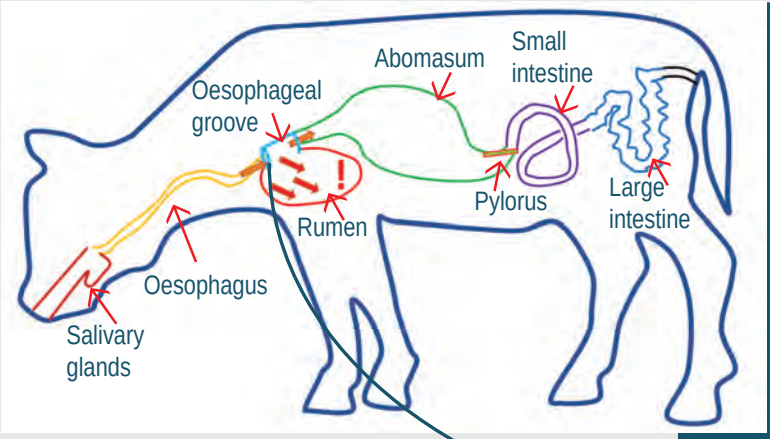
The Oesophageal Groove and the Abomasum.
When a calf suckles, the oesophageal groove closes and forms a small tube to direct the milk past the rumen and into the abomasum.

Feeding with a fast flow teat

- Milk enters the oesophagus at speed and can enter the airways (coughing when drinking).
- The oesophageal groove overflows and milk can enter the rumen (bloat, acidosis).
- With minimal saliva, the milk does not correctly curd and remains high in lactose (sugar).
- The excess lactose passes into the intestines and becomes a food source for bacteria (scours).
- The suckling instinct is unsatisfied and calves are hyperactive after feeding (cross suckling).

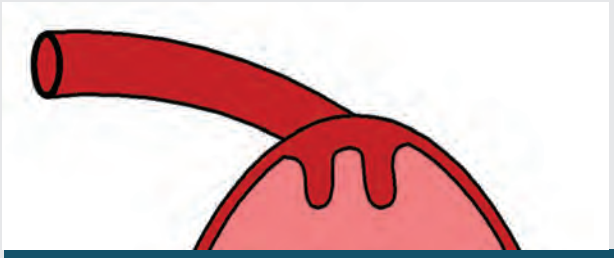


Feeding from a bucket



- In this position, the body prepares to receive water or forage.
- The oesophageal groove remains open and milk is directed to the rumen (bloat, acidosis).
- Milk can enter the airways via the nostrils.
- No saliva is produced, the pH does not balance, so curding is prohibited.
- Excess lactose passes into the intestines causing milk diarrhoea (scours).
- The suckling instinct is unsatisfied and calves are hyperactive after feeding (cross suckling).

The Oesophageal Groove protects the Rumen.
When a calf drinks water from a trough or consumes forages, the oesophageal groove stays relaxed and open so these food groups enter the rumen for digestion.
When feeding calves from a bucket 10 – 15% of the milk directly enters the rumen. Source: Bragon & Hachet 1980



The suckling instinct

To prevent starvation, the brain tells the calf how long to suckle for.
If a calf drinks faster than 'cow speed' she will finish her ration too quickly. The milk is finished but the brain is telling her to continue drinking. The calf tries to continue drinking so sucks on other calves or surroundings.
By feeding as closely as possible to 'cow speed', the suckling instinct is satisfied and calves are quiet and content after feeding.

Research TIP! Controlling milk flow protects the rumen!

'It is vital to the health of the calf that all the milk goes into the abomasum.
If milk enters the rumen it can cause gut ache, as the enzymes in the rumen cannot digest milk. Milk in the rumen is a key contributor to rumen acidosis and ill thrift.'
Source - Dr. Jim Quigley

Milk ferments in the rumen and produces excess gas (bloat).

Lactose absorption & nutritional diarrhea

What causes it

- Nutritional diarrhea can be linked to two major causes, poor digestion and stress.
- Inadequate curding allows excess sugar (lactose) to enter the intestines, becoming a nutrient source for pathogens such as E.Coli.
- Digestive stress is a key factor. If the pH in the abomasum is not balanced and the acid secretion is reduced then the ability of the milk to clot is compromised as is the digestion of milk protein.
- Cows that had contracted mild diarrhea during their first 3 months of life had 344 kg lower ECM305 than those without diarrhea. *C. Svensson, J. Hultgren 2008*
- Calves who suffer from nutritional diarrhea have a reduced weight gain which can impact future conception.

Nutritional diarrhea (scours) is directly linked to feeding speed

Diarrhoea can usually be traced back to a failure of adequate milk digestion in the abomasum. Nutritional diarrhea is simply the end result of an oversupply of lactose in the intestines, caused by milk moving too rapidly out of the abomasum, so it cannot be broken down quickly enough. Nutritional diarrhea often progress to infectious scours. Pathogens use excess lactose as a nutrient source to increase in numbers. *Source- Victoria Department of Primary Industries.*

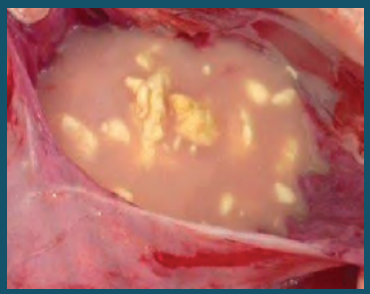
Milk Bar™ Solution:

- Calves using Milk Bar™ Teats drink slowly enough to produce the saliva required to balance the pH in the abomasum for correct curd formation.
- Milk Bar™ Teats are proven to increase lactose absorption.

Research: Reducing feeding speed reduces diarrhea

Under farm conditions, slow release teat system (Milk Bar™ Teat) may reduce diarrhea and other digestive problems in young calves during peak milk intake due to increased ileal digestion of nutrients, preventing undigested nutrient flow to the hind gut
Source - Journal of Applied Animal Nutrition

Calves fed with Milk Bar™ Teats had excellent curding. Only 3mg/gm of lactose remained two hours after feeding indicating more effective absorption into the bloodstream.*



Calves fed on a fast flow teat had inadequate curding. High lactose levels of 12mg/gm remained in the abomasum and high concentrates in the intestine and faeces.*

*Images taken from research published in the Journal of Applied Animal Nutrition.

Cross Suckling

What it looks like

- After feeding, calves suckle on their surroundings or each other and display hyperactive behavior.
- Calves with wet navels would have been sucked on. This can cause navel infections and in bull calves, 'pizzle drinkers'.
- Check calves udders for cross suckling damage.
- Loss of the keratin plug was common.

Cross suckling is directly linked to feeding speed

The calf's brain assumes she is suckling from a cow with a controlled, slow speed.
The gut and brain chemistry work in synergy, so when a calf drinks milk too quickly, there is a lack of neurological feedback to the brain. The suckling urge doesn't switch off and so calves will continue to try and suckle. Cross suckling is directly linked to first lactation mastitis and blind quarters.

Milk Bar™ Solution:

- Feed calves from a Milk Bar™ Teat that controls the flow to 'cow speed'.
- A calf fed 4 quarts should take around 12 - 15 minutes to drink.
- Calves are quiet and content after feeding.

Control the milk flow to stop cross sucking!

Research: The slower calves drink, the less they cross suckle.

During the trial, it was observed that group-housed calves fed the faster flow teats had a much greater incidence of hyperactivity immediately post feeding and were more likely to engage in non-nutritive sucking of each other's body parts (including muzzle, navel and udder). *Source* - Journal of Applied Animal Nutrition

Calves fed with Milk Bar™ Teats were settled and content after feeding. All calves had healthy, undamaged teats and the keratin plug remains intact to protect the teat canal. *

Calves fed from a faster flow teat cross-suckled vigorously after feeding. Cross-suckling damage and loss of the keratin plug was common. *

*Images taken from research published in the Journal of Applied Animal Nutrition.

Weight performance

Positive impacts on increasing ADG (average daily gain).

- 'Pre-weaning ADG had a significant positive effect on first-lactation performance: every 100 gm of pre-weaning ADG was associated with 85 to 111.3 kg more milk during the first lactation.'
  Source: Soberon et al., 2012
- Improved ADG is associated with better conception rates.

Drinking speed influences ADG

Improving lactose absorption is key for calves to fully benefit from good nutrition programmes. Lactose is released from the milk curd in the abomasum. It is broken down to glucose and galactose and these are absorbed into the bloodstream to form the major energy sources for young calves.

Calves on Milk Bar™ Teats produce an abundance of saliva.

- Saliva contains pre gastric lipase for the digestion of fats.
  By controlling the flow of milk, the digestive system functions for maximum utilisation of feed and optimum growth.

Research: Controlled milk flow positively impacts ADG

'Using slow flow rate teats to feed calves from day old to weaning appears to have an important impact on digestive processes in the immature gut. Such improvements in digestion and rumen development in young calves may assist in the digestion of milk and other feeds, leading to improved growth performance.
Source: Journal of Applied Animal Nutrition

Milk Bar™ Teat Range for calves

Milk Bar™ Revolution snap on nipple	Milk Bar™ Revolution training snap on nipple	Milk Bar™ Teat	Milk Bar™ Training Teat	Milk Bar™ Automatic Teat	Calf Buddy™ Teat
For bottles	*For bottles*	*For all calves*	*For young calves*	*For automatic feeders*	*For hutch buckets*

Controlled milk flow

for exceptional calf performance.

Saliva is produced

Saliva boosts immunity.
Saliva improves curding and digestion.

Diarrhea is reduced

Calves absorb more lactose in the abomasum to reduce nutritional diarrhea.

Suckling instinct is satisfied

Satisfied calves don't need to cross suck so calves can be grouped without causing udder damage.

Weight improves

Improved digestion equals heavier, more robust calves.

Milk Bar™ Teat

For over 32 years the Milk Bar™ Teat has been delivering specialized flow control to improve calf health.

Calves are heavier, healthier, and cost less to rear.

For optimal results, use one nipple per calf. This ensures calves suckle and nurse at the best speed for maximum health benefits.
After weaning, discard the worn nipple and replace with a new one for the next calf.

Milk Bar™ Teats are made from a 100% renewable resource. No oil or synthetic based rubber goes into our teats.

Milk Bar™ Teat
Code 265-0002
Quantity: 10 per pack
Back Design: Rectangular hole
Feeder Type: All feeders.

Milk Bar™ Teat - Round
Code 265-0003
Quantity: 10 per pack
Back Design: Round hole
Feeder Type: Feeders with tubes.

To reduce nutritional diarrhea it is important that milk is delivered at '**Cow speed**'. Regular nipple changes protect calves from the effects of fast feeding.

How to use:
All year round raising - After training, fit a new Milk Bar™ Teat to a feeder. This feeder stays with the calf until weaning. Remove the worn nipple after weaning.
Batch Raising - At the start of each batch, place new Milk Bar Teats into the feeders. Remove after weaning.

When to replace: The Milk Bar™ Teat controls the flow for around 110 feeds or 8 weeks. For best results replace after 110 feedings.

Cleaning: Rinse after use. Use a **non-chlorinated** detergent at least twice a week or according to your farm hygiene protocol.
Note: Using products with Chlorine reduces nipple life by 60%

TIP!
Improve time efficiency by using a feeder per hutch or pen.

This system improves nipple management for better calf health.

Milk Bar™ Training Teat

Specifically formulated to support very young or weaker calves.

The teat design encourages the correct suckling action so enough saliva is produced for boosted immunity.

Use a feeder with a Milk Bar™ Training Teat for the first two or three days.

When calves are fully trained, move them to the Milk Bar™ Teat for optimum calf performance.

Milk Bar™ Training Teat
Code 265-0001
Quantity: 5 per pack
Back Design: Rectangular hole.

Research TIP !
Saliva provides Pre-Gastric LIPASE which is necessary for the digestion of fats.
"Pancreatic Lipase activity is highest in calves fed with a teat vs bucket"
(Nelson & al, 1977)

Getting the first few feeds right are critical. The calf needs to suckle properly to produce saliva. Saliva has antimicrobial properties and combined with the iGg in the colostrum, helps to boost immunity.

How to use:

1. Use for the first 2 - 3 days in a feeder.
2. After 2 - 3 days the calf will be strong enough to transition to the more controlled Milk Bar™ Teat.

When to replace: The Milk Bar™ Training Teat will train 16 - 20 calves before needing replacement.

Cleaning: Rinse after use. Use a **non-chlorinated** detergent at least twice a week or according to your farm hygiene protocol.
Note: Using products with Chlorine reduces nipple life by 60%

TIP!
Fit a Milk Bar™ Training Teat to a dedicated feeder.

This feeder becomes your training feeder and is used with multiple calves.

Milk Bar™ Automatic Teat

Controls the flow and satisfies the suckling instinct so calves are calm and settled.

Lasts up to 600 qts to reduce teat replacements.

Side wings to visually check teat alignment.

Maximum saliva production to boost immunity and aid digestion.

Milk Bar™ Automatic Teat
Code 265-0004
Quantity: 10 per pack
Diameter: 1.49”
Feeder Type: Automatic Feeders

How can I implement the Milk Bar™ Automatic Teat into my system?

How to use:

Day 1 - 3	Use a Milk Bar™ Training Teat in either a bottle or single feeder.
Day 4 - 14	Use the Milk Bar™ Teat in either a single or group feeder. Calves can be in singles, pairs or groups.
Day 15+	Transition the calves to the Automatic Feeder fitted with new Milk Bar™ Automatic Teats.

When to replace: Replace teats when milk flow has increased or at around 600 qts.

Cleaning: Use a **non-chlorinated** detergent at least twice a week or according to your farm hygiene protocol.
Note: Using products with Chlorine reduces nipple life by 60%

TIP!
Pairing calves before transfer reduces stress.

Transfer young calves to the automatic feeder once a week.

On the same day new calves enter the group, install a new Milk Bar™ Automatic Teat to the machine.

Calf Buddy™ Teat

A Milk Bar™ Teat to control the flow and super hygienic 1-Click connector that fits any standard hutch bucket.

No valves or threads for an ultra-hygienic connection system.

Side wings to visually check teat alignment.

Calves enjoy the controlled flow, making lots of saliva and are more satisfied after feeding.

Use in any hutch bucket for heavier, healthier calves!

Calf Buddy™

Calf Buddy™ Teat
Code: 265-0007
Quantity: 10 per pack
Feeder Type: Standard hutch buckets

Calf Buddy™ Connectors
Code: 265-0012
Quantity: 10 per pack

The Calf Buddy™ Teat is easy to install into standard hutch buckets! No threads to get dirty and no ball valve to disrupt the milk flow.

How to use:
1. Fits into any brand of standard hutch bucket.
2. Use the Calf Buddy™ Teat until weaning.

When to replace:
The Calf Buddy™ Teat will control the flow for around 120 feeds.

Cleaning: Rinse after use. Use a **non-chlorinated** detergent at least twice a week or according to your farm hygiene protocol.
Note: Using products with Chlorine reduces nipple life by 60%

TIP!
Click the nipple and connector together and pull through your hutch bucket!

Milk Bar™ Revolution Snap On Nipple

A ground-breaking innovation for farms using bottle systems!

The Milk Bar™ Revolution has five slits positioned on a circle to control the flow no matter which way the bottle is placed.

Calves drink at 'cow speed' and produce lots of saliva.

Reduces diarrhoea, respiratory problems and increases weight.

Milk Bar™ Revolution Snap On Nipple
Code 265-0008
Back Design: Snap on
Feeder Type: Snap on bottles

Milk Bar™ Revolution Training Snap On Nipple
Code 265-0009
Back Design: Snap on
Feeder Type: Snap on bottles

With an extraordinary improvement in calf performance, the Milk Bar™ Revolution Snap On Nipple is a must have for farms using bottle systems!

How to use:
1. Use the yellow training nipple for the first 2 - 3 days before switching to the black nipple until weaning.

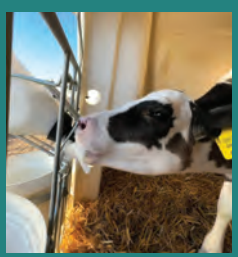
When to replace:
Replacement depends on how often you use the nipple per day:
2 x day: Around 10 weeks (140 feeds). 3 x day: Around 7 weeks (140 feeds).
4 x day: Around 5 weeks (140 feeds). 5 x day: Around 4 weeks (140 feeds).

Cleaning: Rinse after use. Use a **non-chlorinated** detergent at least twice a week or according to your farm hygiene protocol.
Note: Using products with Chlorine reduces nipple life by 60%

NZ Pat Appln 781124 PCT Patent Application PCT/NZ2022/050096 International Patents pending.

TIP!
Use the yellow training nipple until the calf is drinking strongly.

Use the black nipple to reduce gut problems and to increase daily weight gain.



From single calves to groups, Milk Bar feeders adapt to any farm.

Milk Bar™ Single Feeders

Hook systems to suit any style of rail, gate or hutch.

Various milk volumes to suit any nutrition plan.

Robust and easy to clean.

Milk Bar™ Single feeders can be used for both individually fed calves or calves housed in the 'Buddy System'.

Milk Bar™ 1 EZ-Lock
Code 265-2101
Adjustable, 100% lockable hooks. Reversible to hang inside or outside of pen.
Calves cannot bunt the feeder off the rails.
Locks to rails up to 2 15⁄16 ”
Volume: 2 gal (8 L)
Weight: 1.54 lbs (700 gms)
Dimensions: 11" x 7" x 16 ¼" (28 x 18 x 41 cm)
Hooks: Ez-Lock

Milk Bar™ 1
Code 265-2001
Self locking catch secures the feeder.
Use on rails of 1 inch or less.
Volume: 2.8 qts (3.2 L)
Weight: 1.54 lbs (700 gms)
Dimensions: 8 ¼ " x 8 ¼ " x 9¾ " (21 x 21 x 25 cm)
Hooks: Molded 1”

Milk Bar™ 1 EL feeders flip upside down for advanced functionality!

Milk Bar™ Compartments

Compartment feeders are a useful tool for sorting calves into groups.

Ideal for high concentrate, low volume systems.

The Milk Bar™ Teat evens out drinking speeds to reduce break away behaviour and bunting. Another great benefit of controlling the flow!

Compartments hold 0.5 gal (2.5L) and are easy to clean.

Milk Bar™ 2 Compartment

Code 265-2202

Volume: 0.5 gal (2.5 L) ea
Total Volume: 3.6 gal (14 L)
Weight: 5 lbs (2 kg)
Dimensions:
16 ¼" x 9 ¾" x 16 ¼"
(41 x 25 x 41 cm)
Hooks: Ez-Lock
Handle: Finger grips

Milk Bar™ 3 Compartment

Code 265-2203

Volume: 0.5 gal (2.5 L) ea
Total Volume: 5 gal (19 L)
Weight: 6.6 lbs (3 kg)
Dimensions:
20" x 9 ¾" x 16 ¼"
(51 x 25 x 41 cm)
Hooks: Ez-Lock
Handle: Finger grips

Milk Bar™ 4 Compartment

Code 265-2204

Volume: 0.5 gal (2.5 L) ea
Total Volume: 6.3 gal (24 L)
Weight: 6.6 lbs (3.5kg)
Dimensions:
25" x 12" x 16"
(66 x 30 x 40 cm)
Hooks: Ez-Lock
Handle: Finger grips

Milk Bar™ 5 Compartment

Code 265-2205

Volume: 0.5 gal (2.5 L) ea
Total Volume: 8 gal (30 L)
Weight: 8.8 lbs (4.5 kg)
Dimensions:
33" x 15" x 12"
(85 x 39 x 30 cm)
Hooks: Ez-Lock
Handle: Finger grips

Milk Bar™ 10 Compartment

Code 265-2210

Volume: 0.5 gal (2.5 L) ea
Total Volume: 18 gal (70 L)
Weight: 24 lbs (11 kg)
Dimensions:
44" x 17" x 18"
(113 x 43 x 48 cm)
Hooks: Aluminium
Handle: Finger grips and cut out handle

Milk Bar™ Feeder Benefits

Feeders inter-stack with teats fitted making handling feeders quick and easy.

Easy to clean with sleek lines. No 'lip' around the top of the feeders, no threads, no valves.

Low teat channel reduces milk waste.

Hook systems to suit all hutches, pens or rails.

Milk Bar™ feeders come fully assembled with nipples fitted and ready to use.

Ez-Lock Hooks
100% bunt proof and adjust to fit gates up to 2.95 inch rails!
Feeders hang upside down to drain.

Replacement hook set available:
Code 265-0014

Molded
Molded into the feeder to fit 1, 1.7 or 2 inch rails.
Feeders with moulded hooks also have a self locking catch.

Cleaning

Do not use Chlorinated Detergents!

Chlorine reduces nipple life by 60%

Daily: Rinse feeders to remove milk residue.
At least twice a week: Scrub feeders with hot water (120°F) and non-chlorinated detergent or according to your farm hygiene protocol.

Milk Bar™ Group Feeders

Milk Bar™ 5
Code 265-2005
Volume: 3 gal (15 L)
Weight: 4 lbs (2 kg)
Dimensions:
28" x 11 ¾" x 14 ¼"
(28 x 30 x 36 cm)
Hooks: Molded 1, 1 ¾", 2"

Milk Bar™ 6
Code 265-2106
Volume: 9.5 gal (36 L)
Weight: 6.6 lbs (3 kg)
Dimensions:
33" x 18" x 17"
(84 x 46 x 43 cm)
Hooks: Ez-Lock
Handle: Finger grips

Milk Bar™ 10
Code 265-2110
Volume: 16 gal (60 L)
Weight: 11 lbs (5 kg)
Dimensions:
33" x 18" x 17"
(84 x 46 x 43 cm)
Hooks: Ez-Lock
Handle: Finger grips and cut out handle

Milk Bar™ 12
Code 265-2112
Volume: 23 gal (90 L)
Weight: 17 lbs (8 kg)
Dimensions:
47 ¼" x 17" x 18"
(120 x 43 x 46 cm)
Hooks: Aluminum
Handle: Finger grips and cut out handle

Milk Bar™ 13 Straight Line
Code 265-2313
Volume: 22 gal (100 L)
Weight: 22 lbs (10 kg)
Dimensions:
83 ¼" x 13" x 7 ¾"
(211.4 x 33 x 20 cm)
Hooks: Aluminum

Milk Bar™ 18 Straight Line
Code 265-2318
Volume: 37 gal (170 L)
Weight: 35 lbs (16 kg)
Dimensions:
141" x 13 ¾" x 98"
(358 x 35 x 25 cm)
Hooks: Aluminum

TIP! If you're not sure what size feeder you need, it's a good idea to go up a size. You can always use a Milk Bar™ Plug to block off a nipple space!

Milk Bar™ Plug
Product Code: 265-1005
Quantity: 10 per packet

Calf Buddy™
Two heads are better than one

www.calfbuddy.com

Calf Buddy™ Feeders

Using hutches? Great, we have a highly adaptable hutch bucket.
Calves in pair systems? Perfect, we have a high volume 2 nipple feeder.
Want larger groups, excellent, the Calf Buddy 5 is ideal.

Calf Buddy™ 1
Code: 265-5001
Volume: 9.5 qts (9 L)
Semi-transparent.
Stainless steel handle.
Marked litre gradients.
Slots onto mounting bracket.

Calf Buddy™ 1 Lid
Code: 265-5901

Calf Buddy™ 1 Mounting Bracket
Code: 265-5801

Calf Buddy™ 2
Code: 265-5002
Volume : 5 gal (20 L)
Height : 5” (39 cm)
Length : 16” (42 cm)
Width : 12” (31.5 cm)

Calf Buddy™ 2 Lid
Code: 265-5902

Calf Buddy™ 5
Code: 265-5005
Volume : 13 gal (50 L)
Height : 15” (40 cm)
Length : 30” (76.5 cm)
Width : 14” (37 cm)

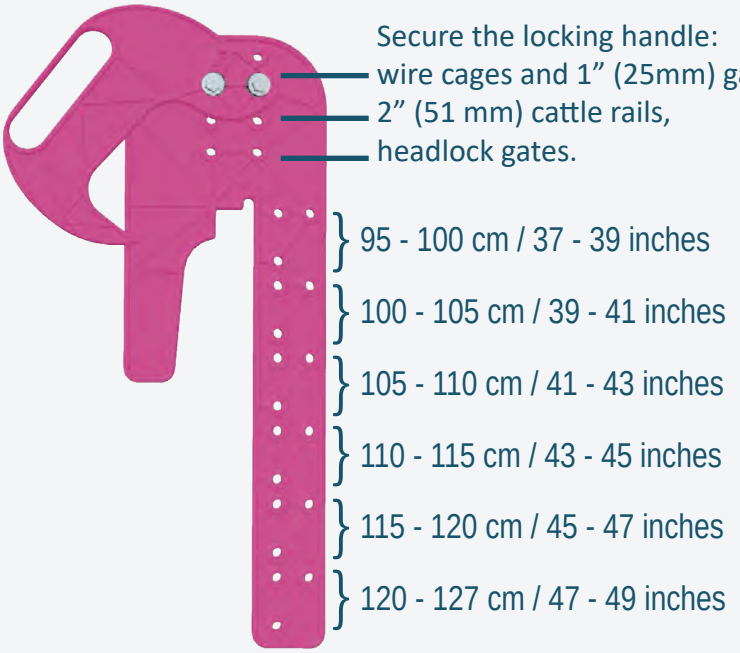
Calf Buddy™ 5 Lid
Code: 265-5905

Calf Buddy™ Feeders come fitted with Calf Buddy™ Teats and connectors.
Controlled flow and super hygienic connection system!

The Calf Buddy™ Hook System

Designed to fit wire cage, 1 " box steel, 2" pipe rails and headlock gates,
The hook is height adjustable so calves drink at the perfect height no matter what rails you use.
The unique locking 'swivel handle' is comfortable to use and secures the feeders in place.

For a bespoke hook system to work perfectly on your farm, just measure and attach!



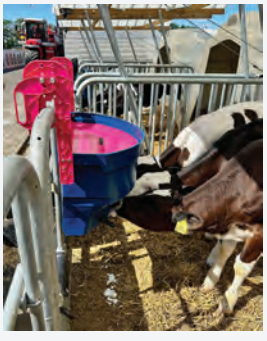
Get the height right:

Standing on the calf side of your pen, measure the rail height.
Bolt the hook to the feeder using the marked holes.

Teats will now be around 2 ft (60- 65 cm) from the ground, the perfect height.

Set the locking handle:

Determine your rail type. Attach the locking handle to the hook according to the rail.



Perfect height and locks onto any rail type!

NZ Pat Apps 757655, 767633, 727000, 787005.
NZ Des Reg. 420972 PCT Patent Applications NZ2016/050190 & NZ2020/050110 International Patents and Designs pending or apply.

MILK BAR™
easy for you, healthy for them

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