



# Calf 2020 Range



New Innovation:

**Drip Proof Technology!**



[www.milkbar.co.nz](http://www.milkbar.co.nz) 0800 104 119





# The digestive system in harmony

We love calves. They are cute and curious, playful and sometimes a bit daft. They are also very important and have many future roles from the basis of your future herd to providing high quality beef. For every calf born you have given some thought around what genetics to use, what nutrition plan to follow, when to calve, the list goes on.

When it all goes right, raising calves can be very rewarding. At Milk Bar our focus is to provide you with information about a calves digestive system so you can reduce some of the common problems that can make raising calves stressful.

When a calf suckles from a cow she applies both positive and negative pressure (squeezing and suckling). The squeezing stimulates the cows teat so oxytocin is released. Oxytocin causes cells in the udder to contract and eject milk from the alveolus into the cisterns above the teats.

The suckling overcomes the sphincter barrier, allowing the calf to remove milk from the teat. Oxytocin does NOT cause milk to flow from the teat. The teat canal must be physically opened to remove milk.

She drinks slowly, up to 4 or 5 minutes per litre of milk and produces a lot of saliva.

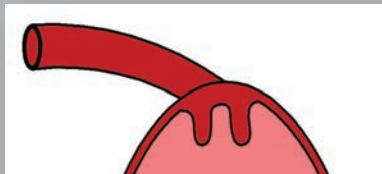


The saliva that is produced by suckling slowly is loaded with natural antimicrobial properties to boost immunity. Salvia balances the pH in the abomasum so the milk can turn into a thick curd.

The slow delivery of milk combined with saliva gives rennin and other enzymes time to curd the milk, lipase digests fats, lactose is digested and absorbed into the bloodstream.

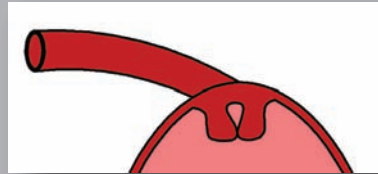
The natural suckling action of using positive and negative pressure activates the oesophageal groove to close and form a tube so milk bypasses the rumen and enters the abomasum. The oesophageal groove is a curved muscle that lies at the base of the oesophagus. It ensures that everything that enters the calf's mouth, ends up in the right place.





#### **The Oesophageal Groove and the Rumen.**

When a calf drinks water from a trough or eats meal and grains, the oesophageal groove stays relaxed and these food groups drop straight into the rumen for digestion.



#### **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 for digestion. Too much milk can cause it to overflow allowing milk to drop into the rumen.

Milk in the rumen is a no no for calves. The rumen has enzymes to digest grains and forage but these enzymes are not able to digest milk so the milk ferments and produces lactic acid.

The lactic acid enters the bloodstream and can cause depression, anorexia and sometimes death. In nature this never happens.



Put simply, when left alone the calf drinks with her neck long and low, and the cow lets the milk down slowly. With the speed of milk controlled, the rumen is bypassed and the abomasum creates the curd to start the digestion process. The enzymes do their job and get cracking with digesting fats and lactose. Happy, healthy calves!

### **Research Extracts**

'It is vital to the health of the calf that all the milk goes into the abomasum. If milk enters the rumen through fast feeding, tube or bucket feeding, 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*

# Common behaviour

Now we know how the digestive system works we can start to understand that the way some calves act in an artificial environment is not really normal!

Calves react to physical stimulus so by watching them at feeding time we can learn a lot about how they are physically feeling. A lot of calf behaviour is so common, we think it's normal, but if you know what you're looking at you will start to see the link between calf behaviour and how we are feeding them.

## Cross Suckling

### What is it?

Cross-suckling is when calves suckle on each other or their surroundings after feeding. It can be missed when feeders are filled and calves are left to feed, however it is worth taking the time to check for cross suckling as it can cause short term infections and long term damage.

If you watch your calves after feeding you will see that the length of time they spend cross suckling is directly linked to the speed in which they drink.

For example: A calf fed 4L at 'nature's speed' should take around 12 - 15 minutes to drink. After drinking she will be quiet and settled. Her suckling urge is satisfied and she is content.

If she drinks 4L in 8 minutes or less then she will spend the next 4-5 minutes cross suckling to satisfy the natural suckling urge.

### Why it's a problem:

Short term problems like navel infections are a nuisance and take time and cost to treat.

We are more interested in the long term damage because cross suckling removes the keratin plug and leaves the developing teat canal open to infections. Cross-suckling is strongly linked to mastitis and blind quarters in first lactation heifers.

### How to fix it:

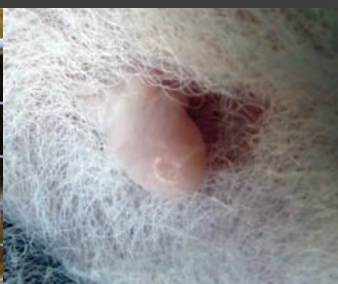
Allowing calves to drink at the 'natural speed' resolves cross suckling almost immediately. It really is that simple!

## Research Extracts

'Calves suckling on each other can affect the development of the juvenile udder. This in conjunction with the transmission of mastitis pathogens is prone to lead to heifer mastitis' *Source - Schalm*

'Sucking the immature udder can lead to premature removal of the keratin plug, which protects the individual teats from infection, especially in heifers coming into first milk, as well as navel and skin infections. *Source - Jensen and Budde*

'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.



# Lactose absorption & nutritional scours

## What is it?

Nutritional scours is not as serious as viral scouring which can devastate your calving season, but it still takes time to treat and does have long term consequences.

Nutritional scours can be linked to two major causes, poor digestion and stress.

Stress can result from a variety of causes. It could be due to irregular feeding, sudden changes in the concentration of milk replacers, or a poor quality milk powder.

Environmental stress can also play a part. Calves don't like sudden changes in the weather or cold, damp, draughty or humid calf sheds.

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.

Inadequate clotting allows excess sugar (lactose) to enter the intestines and produce a nutrient source for pathogens such as E.Coli who's numbers multiply rapidly when in contact with raw milk or lactose. This is a leading cause of nutritional scours in young calves.

## Long term impact:

Aside from the cost and added workload of treating calves with nutritional scours, studies have shown that calves who suffer from nutritional scours pre weaning have a reduced average daily gain which can impact conception.

Further studies have shown that nutritional scours pre weaning has a negative impact on first lactation milk production.

## Addressing the cause:

Alongside reducing environmental stress, improving digestibility and lactose absorption is key in reducing nutritional scours.

We know from studies that a controlled flow of milk into the calf has a positive effect on digestion by promoting good clotting and improving lactose absorption. Saliva production helps to balance the pH to further ease stress on the digestive system.

Feeding the calf at a slow, natural speed will maximise saliva production and ultimately reduce work load.

## Research Extracts

'Scours can usually be traced back to a failure of adequate milk digestion in the abomasum.

Nutritional scours 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.

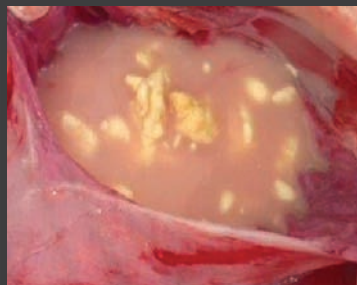
Nutritional scours often progresses to infectious scours. Pathogens use excess lactose as a nutrient source to increase in numbers. *Source- Victoria Department of Primary Industries.*

Cows that had contracted mild diarrhoea during their first 3 months of life had 344 kg lower ECM305 than those without diarrhoea. *C. Svensson, J. Hultgren 2008*

Under farm conditions, slow release teat system may reduce scours and other digestive problems in young calves during peak milk intake (up to 15 d of age), due to increased ileal digestion of nutrients, preventing undigested nutrient flow to the hind gut *Source - Journal of Applied Animal Nutrition*



Calves fed on Milk Bar Teats had thick, even curdling. 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 curdling with lumps of coagulated milk floating in a watery liquid. High lactose levels of 12mg/gm remained in the abomasum and high concentrates in the intestine and faeces.\*

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



# Breakaway behaviour

## What is it?

It's easy to think that young calves will be easier to train on a fast flow teat but actually it causes issues with breakaway behaviour!

Breakaway behaviour is when calves becomes unsettled when feeding and 'breaks away' from feeding. Typically you see this in calves fed from a fast flow teat. Calves struggle with the high flow of milk and will come off the teat and either drop their head and cough or try to find another teat that is more comfortable.

## Why is it a problem?

Breakaway behaviour disrupts the feeding time and can influence the milk volume the calf uptakes. For calves fed in groups this can lead to unequal milk intake. Breakway behaviour can contribute to extra training time.

## How to fix it:

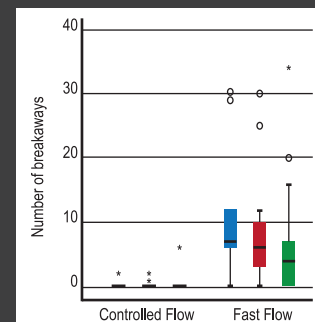
When calves are delivered milk with a controlled flow, break away behaviour is reduced to the occasional repositioning.

## Research Extracts

'Young calves fed fast teats exhibit 'break away' behaviour, whereby they release the teat and back off from feeding every now and then during the feeding period, and are harder to get started on the calfeteria system at one day old. This may be due to satiety being reached faster, hence their not wanting to consume the milk in one sitting. For calves fed using the slow teats, these do not show so much of this behaviour, and appear to be easier to start on the teats at a young age. ' Source - LWT Animal Nutrition

'Calves fed from a fast flow teat were significantly more unsettled with feeding interrupted multiple times by breakaway behaviour.'

Source - M. Sc. Ostendorf



# Weight performance

Average daily gain (ADG) is the grams per day in weight gain. Good ADG has positive outcomes such as better conception rates and increased first lactation milk production to name just a few.

**Week 1 - 3** All energy comes from colostrum or milk. A calf takes no energy from grain during the first few weeks, so it is important to feed enough milk to meet all energy needs.

Grain in the diet is important from week one to start rumen development.

**Week 4** Now the rumen is starting to develop. Small amounts of energy are taken from grain, but the majority of energy is still from milk.

**Week 6** By the end of the week six (42 days) the rumen should be developed enough for milk to be reduced. If the calf is eating 700 grams of grain per day then the milk volume can start to be reduced.

**Week 12** The rumen should now be developed enough for the calf to continue to grow on pasture, pasture based feeds or grain based feeds depending on your feeding regime.

**Weaning** To prevent weight loss at weaning it is important the calf has had ad lib grain from Week 1.

When the calf is eating 700gms of starter ration the milk can start to be reduced and be fed once a day.

**Do not go to once a day feeding under 42 days.** Ideally calves on once a day milk feeding should be fed in the evening.

The calf will then sleep on a full stomach but will be hungry during the day. With ad lib grain available they will consume more to accelerate rumen development.



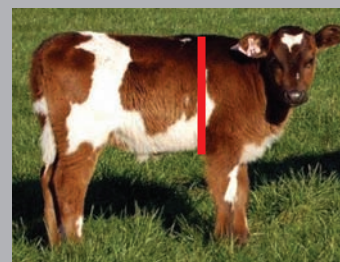
## Milk Volume

Use a tape measure every week to measure the growth and adjust feeding volumes using the chart example below. Wrap the tape around the calf just behind the wither and elbow.

Don't forget, in cold weather you need to increase the volume by 2% every degree under 5°C.

So if the milk volume is 5 L:

At 4°C increase 2% = 5.1 L      At 0°C increase 10% = 5.5 L      At -5°C increase 20% = 6.0 L



### Whole milk example:

	Calf Heart Girth CM	Weight (approx)	Colostrum Litres	Milk Litres	Feeding times	Grain kg
Day 1	70	40	4.7		Split into 2 - 3 feeds	
Day 2			4.7		Split into 2 - 3 feeds	
Day 3			2	3	Split into 2 - 3 feeds	
Week 1	74	44		5.0	Split into 2 feeds	Ad Lib
Week 2	80	50		5.3	Split into 2 feeds	Ad Lib
Week 3	84	56		5.7	Split into 2 feeds	Ad Lib
Week 4	86	61		6.0	Split into 2 feeds	Ad Lib
Week 5	88	67		6.2	Split into 2 feeds	Ad Lib
Week 6	92	73		6.4	Split into 2 feeds	Ad Lib
Week 7	94	79		4.0	1 feed - Evening	Ad Lib
Week 8	98	84		4.0	1 feed - Evening	Ad Lib

Providing the calf is consuming a minimum of 1kg of grain or has doubled it's birth weight it can be weaned from 8 weeks.

### Improving ADG performance:

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.

## Research Extracts

'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

'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

Controlled trials show a consistent and strong trend to higher ADG when calves are fed from a controlled flow teat.

Country	Year	Milk Bar Teat	Fast Flow Teat	Bucket Feeding	ADG Variance at weaning
New Zealand	2014	0.736	0.665		+2.98 kg
Italy	2017	0.697	0.620		+6.03 kg
Brazil	2015	0.724	0.616		+6.48 kg
Hungary	2018	0.994		0.680	+10.30 kg
Netherlands	2019	0.955		0.828	+8.89 kg





# Milk Bar Teats & Feeders

from our family to yours



# Milk Bar® Teats



The world famous Milk Bar Teat has had an overhaul for the 2020's and now features revolutionary **Drip Proof Technology!**

It's been an exciting time for us here at Milk Bar. We've been at the drawing board designing, experimenting and playing around with a whole new concept for our Milk Bar Teat.

Endless late nights discussing ideas and early mornings feeding calves to make sure the teat performs but more importantly that our four legged friends are feeding at a healthy speed and producing the saliva they need.

For 30 years we have worked very hard to source the best quality, natural rubber from around the world, to make the Milk Bar Teat as perfect as possible for calves.

But even with the best rubber money can buy, some batches react differently to others.

It's all to do with the natural rubber source, which is a tree. We don't use synthetic fillers so we are impacted by changes in the rubber tree. This is why some teats last all season and some don't.

It's been bugging us for years, so we are thrilled to let you know that we have cracked it!!

We still use 100% natural rubber but combined with our new patent pending Drip Proof Technology we believe we have created the perfect teat, great for calves and great for you!

Your calves will still enjoy all the health benefits associated with the controlled flow created by the Milk Bar Teat, while you can enjoy improved functionality with the innovative DPT design.

Teats that last the distance. Heavier, healthier calves. Job done.



These lovely ladies are just a few of our crucial testing team.

They have been filmed, timed, analyzed, and generally been little stars.

Or in this case, big stars!

At 8 weeks weighing in at a hefty 95kg. No scours, no problems.

We've hammered the teats to test the durability and we have to say, we're pretty happy!

NZ Pat App 757655 NZ Pat App 741934 NZ Des Reg. 420972 PCT Patent Application NZ2016/050190 International Patent and Designs pending

Drip proof technology is tested and under normal farm conditions Milk Bar Teats with DPT do not drip within a reasonable teat life expectancy. Performance specifications are believed to be reliable but are not verified across individual farm practices. As farm practices and natural raw materials may vary, Milk Bar can take no responsibility for teats that may drip occasionally.



# Milk Bar Teat



We make a lot of health claims about the Milk Bar Teat, some might say it's a bold move! But we are confident because the Milk Bar Teat is the only teat in the world supported by peer reviewed and published research. We've reared a lot of calves in our time so we also know from personal experience the great effects of controlling the flow of milk.

The pull through teat design might be harder to change but it doesn't loosen during feeding and with no threads or valves to clean, good hygiene is easy to maintain. We feed calves, so we know, what is hard to clean is never truly clean!

A teat that lasts the distance. Proven health benefits. Job done.



## Milk Bar Teat

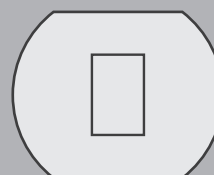
Milk Bar Code 900100

Quantity: 10 per pack

Back Design: Rectangular hole

Feeder Type:

All 'pull through teat' feeders.



## Milk Bar Teat

Milk Bar Code 900100-R

Quantity: 10 per pack

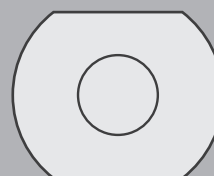
Back Design: Round hole

Feeder Type:

All 'pull through teat' feeders.

New Era Daisy feeders.

Tube feeders. Do not use a non-return valve when using a tube feeder as it disrupts the natural suckling action.



**Protocol:** At the beginning of the calving season, fit new Milk Bar Teats into your calf feeders.

At the end of the season, remove and discard the worn teats.



Milk Bar Teats with Drip Proof Technology don't leak so why do I need to change teats?

It is important for calf health that milk is delivered at the right speed to optimize digestive health and performance.

As a teat ages, the rubber becomes softer and milk flow increases. As a calf approaches weaning the developed digestive system can manage this slightly increased flow but for young calves a faster flow impacts health and can result in cross suckling and nutritional scours.

We know it's a pain changing teats but your calves will thank you for it!

# Milk Bar<sup>®</sup> Colostrum Teat



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

The Milk Bar Colostrum Teat has been specifically formulated for very young calves. It is soft enough for them to nurse easily while the design encourages the correct suckling action so enough saliva is produced for boosted immunity. It is tempting to use a fast flow teat for the first few days to get colostrum into the calf.

Try to resist!

Using a fast flow teat cannot give the calf the added benefits of saliva.

Milk Bar Colostrum Teats feature Drip Proof Technology and will last your training pens for the whole season.



## Milk Bar Colostrum Teat

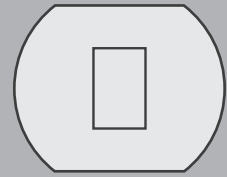
Milk Bar Code 900300

Quantity: 5 per pack

Back Design: Rectangular hole

Feeder Type:

All 'pull through teat' feeders.



## Protocol:

1. Fit a feeder with Milk Bar Colostrum Teats for your training pens.
2. Use for the first two or three days.
3. When calves are fully trained, move them onto the Milk Bar Teat for happy, healthy calves.



Calves are drinking well on the Milk Bar Colostrum Teats with Drip Proof Technology so why should I change to Milk Bar Teats?

The softer rubber compound is specific for training but the flow is a little faster than the Milk Bar Teat. Changing to the more controlled flow of the Milk Bar Teat safeguards calves against the harmful effects of fast feeding.



**TIP!** A Milk Bar Teat Tool makes changing teats easy!  
Milk Bar Code: 950400





# Milk Bar® Feeders

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

Hook systems to suit all calf sheds.

Feeders come with either large cut out handles, or secure finger grips, or both.

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

Low teat channel reduces milk waste.

Milk Bar feeders come fully assembled with teats fitted and ready to use!

## Hook Systems

### Ezi Lock Hooks

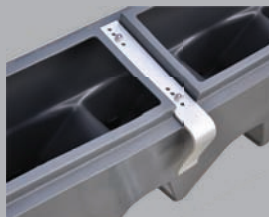
100% bunt proof and adjust to fit gates up to 75mm rails!  
Feeders hang upside down to drain.  
Replacement hook set available:  
Milk Bar Code 950200



### Aluminium Hooks

Used on feeders where hooks are too far apart to be adjusted simultaneously.  
Pre-drilled for use on different rail or gate widths.

Replacement hooks available:  
Milk Bar Code 116002: Hook for Milk Bar 12  
Milk Bar Code 116003: Hook for Bird Proof Meal Bar  
Milk Bar Code 116004: Hook for Milk Bar 13, Milk Bar 18,  
Milk Bar 15 & 10 Compartment, Lamb 20.



### Moulded

Moulded into the feeder to fit 25, 45 or 50mm rails.



**TIP!** Use a Milk Bar Plug if you have spare spaces!  
Milk Bar Code: 900109



### Milk Bar Trainer Bottle

Milk Bar Code 901100  
Volume: 3L  
Weight: 600gms  
Length: 350mm  
Height: 150mm  
Width: 120mm  
Handle: Carry handle



### Milk Bar 1

Milk Bar Code 910100  
Volume: 3L  
Weight: 700gms  
Length: 210mm  
Height: 210mm  
Width: 210mm  
Hooks: Moulded 25mm  
Handle: Finger grips



### Milk Bar 5

Milk Bar Code 910200  
Volume: 15L  
Weight: 2kg  
Length: 300mm  
Height: 360mm  
Width: 300mm  
Hooks: Moulded 25-40mm  
Handle: Carry handle



### Milk Bar 6

Milk Bar Code 910300  
Volume: 36L  
Weight: 3kg  
Length: 700mm  
Height: 400mm  
Width: 300mm  
Hooks: Ezi Lock  
Handle: Finger grips



### Milk Bar 10

Milk Bar Code 910400  
Volume: 60L  
Weight: 5kg  
Length: 850mm  
Height: 430mm  
Width: 460mm  
Hooks: Ezi Lock  
Handle: Cut out handles



### Eco 10

Milk Bar Code 927100  
Volume: 60L  
Weight: 5kg  
Length: 850mm  
Height: 430mm  
Width: 460mm  
Hooks: Moulded 40mm  
Handle: Cut out handles



### Milk Bar 12

Milk Bar Code 910500  
Volume: 90L  
Weight: 8kg  
Length: 1.2m  
Height: 460mm  
Width: 430mm  
Hooks: Aluminium  
Handle: Finger grips and cut out handle



### Milk Bar 20

Milk Bar Code 910800  
Volume: 120L  
Weight: 12kg  
Diameter: 900mm  
Height: 900mm  
The Milk Bar 20 can be used inside or out.  
Fantastic for larger groups of calves.  
Replacement bolt kit: MB20 Assembly Pack Code 990017



Patent Application PCT/NZ2016/050190 International patent applications and designs apply.  
Patents apply to feeders NZ Pat513590

**TIP!** Use a Milk Bar Rail Pail to reduce heavy lifting.  
The spout sits through the rail and rests on the back of the feeder.  
Milk Bar Code: Green 950100 Yellow 950101 Magenta 950102





# Milk Bar<sup>®</sup>

## 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 (pg 6) and bunting. Another great benefit of controlling the flow!

Compartments hold 2.5L and are easy to clean.

### Milk Bar 2 Compartment

Milk Bar Code 912100  
Volume: 2.5L ea  
Weight: 2kg  
Length: 400mm  
Height: 400mm  
Width: 250mm  
Hooks: Ezi Lock  
Handle: Finger grips



### Milk Bar 3 Compartment

Milk Bar Code 912200  
Volume: 2.5L ea  
Weight: 3kg  
Length: 500mm  
Height: 400mm  
Width: 250mm  
Hooks: Ezi Lock  
Handle: Finger grips



### Milk Bar 4 Compartment

Milk Bar Code 912250  
Volume: 2.5L ea  
Weight: 3.5kg  
Length: 660mm  
Height: 400mm  
Width: 300mm  
Hooks: Ezi Lock  
Handle: Finger grips



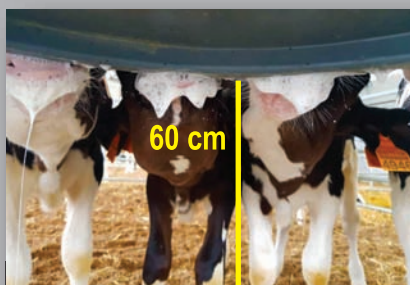
### Milk Bar 5 Compartment

Milk Bar Code 912300  
Volume: 2.5L ea  
Weight: 4.5kg  
Length: 850mm  
Height: 390mm  
Width: 300mm  
Hooks: Ezi Lock  
Handle: Finger grips



### Milk Bar 10 Compartment

Milk Bar Code 912400  
Volume: 2.5L ea  
Weight: 11kg  
Length: 1.13m  
Height: 430mm  
Width: 480mm  
Hooks: Aluminium  
Handle: Finger grips and cut out handle



**TIP!** For the correct neck position, make sure teats are around 60cm from the bedding.





# Milk Bar® Straight Feeders

Straight line feeders are a great solution if you need larger groups of calves.

Ideally placed handles make these longer feeders easy to use and add strength.

Wide teat spacing accommodates calves shoulders.

Hooks are aluminium and are pre-drilled to easily set for different gate sizes.

## Milk Bar 13

Milk Bar Code 910600

Volume: 100L Weight: 10kg

Length: 2.12m Height: 330mm

Width: 200mm

Handle: Two large moulded handles



## Milk Bar 18

Milk Bar Code 910700

Volume: 170L Weight: 16kg

Length: 3.6m Height: 350mm

Width: 250mm

Handle: Five large moulded handles

New for 2020, a 20mm drain hole!



## Milk Bar 15 Compartment

Milk Bar Code 912500

Volume: 2.5L ea Weight: 16kg

Length: 3.3m Height: 350mm

Width: 210mm

Handle: Five large moulded handles



## Cleaning

Milk is tricky to clean off surfaces. Hot water removes fat, but the heat can bake protein onto the surface. Fats and proteins form a nutrient-rich biofilm where bacteria grows. Feeders look clean but bacteria is happily growing on the surface.

Cleaning needs to remove fat and protein to prevent the formation of a biofilm. An alkali detergent is the best for this job. We've made Milk Bar Feeders and Teats as to easy as clean as possible. We use pull through teats to reduce areas where bacteria can grow. We don't use valves and Milk Bar Teats do not need to be removed or flushed through for cleaning.

**Daily:** Rinse feeders with cold water.

**At least twice a week:**

Scrub feeders with hot water (50°C) and Milk Bar Detergent.

Bend the teats with your brush to flush the milk out of the teat.

Rinse with clean water.



Milk Bar Detergent is ideal for removing the biofilm from teats and feeders!  
Available in 2L bottles. Milk Bar Code 950300



# Milk Bar® Waterers

Water helps development of the rumen and is essential for digestion and the metabolic function of the calf. Even slight dehydration will affect the metabolic function and reduce feed intake.

Milk Bar Waterers are fitted with a protected float valve and have a small volume so water is constantly refilling for freshness.

## Snack Water Trough

Milk Bar Code 935300

Volume: 15L

Weight: 2.5kg

Length: 650mm

Height: 130mm

Width: 200mm

Hooks: Moulded 25mm

Valve: McInnes Float Valve

Use between adjoining pens.

Drain point.



## Milk Bar Pen Waterer

Milk Bar Code 935100

Volume: 8L

Weight: 3.5kg

Length: 330mm

Height: 575mm

Width: 275mm

Hooks: Screws to wall

Valve: McInnes Float Valve

Drain point. 20mm threaded inlet.

Stops dust, bird and calf faeces from contaminating the water!



## Milk Bar Tri Pen Waterer

Milk Bar Code 935500

Volume: 20kg

Weight: 7kg

Length: 910mm

Height: 610mm

Width: 300mm

Hooks: Screws to wall

Valve: McInnes Float Valve

Ideal for one large pen or between two smaller pens.



## McInnes Float Valve

Milk Bar Code 935402

Weight: 600gms

Length: 220mm

Height: 110mm

Width: 100mm

PSI: Up to 100psi

20mm male thread inlet.

The protected tongue stops calves flooding pens.



# Milk Bar® Meal Feeders

Growth rates are accelerated when calves have access to meal and water from day one. The enzymes in grains stimulate and develop the rumen. From around six weeks, the rumen starts to contribute towards the calves energy.

## Braden Start Bottle

Milk Bar Code 930100

Volume: 500gms

Weight: 2kg

Length: 200mm

Height: 300mm

Width: 200mm

Hooks: Plastic strap

Keeps grain fresh, dry and increases consumption.

Braden Start Bottle Replacement Nipple: Milk Bar Code 930200



## Snack Bar

Milk Bar Code 930800

Volume: 8kg

Weight: 2kg

Length: 650mm

Height: 130mm

Width: 200mm

Hooks: Moulded 25mm



## Munch Trough

Milk Bar Code 930700

Volume: 20kg

Weight: 4kg

Length: 800mm

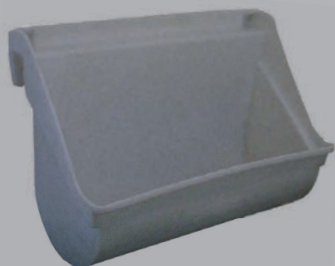
Height: 530mm

Width: 300mm

Hooks: Moulded 50mm

High back and sides prevents spillage.

Ideal for horses!



## Milk Bar Bird Proof

Milk Bar Code 930900

Volume: 40kg

Weight: 12kg

Length: 1m

Height: 850mm

Width: 300mm

Hooks: Aluminium

Cover keeps contents dry and the curtain keeps birds out.

Easy fill rear hatch. Feeds 30 calves ad lib inside or out.

Replacement curtain: Milk Bar Code 930910





# Milk Bar® Mobiles

Opaque tank with gradients every 50 litres.

The manual leveller straightens the tank and manifolds together.

Super hygienic with open manifolds.  
No fiddly bits.

Foot plate and easy access lid placement.

Round tank eliminates milk surge to improve stability.

When feeding large groups of calves, little design issues pretty quickly become a big usability issues! We've spent a lot of time identifying the bugs and finding innovative solutions.

We don't use any pipes to connect the tank to the manifold because we know they are hard to clean.

We managed to make the tank and manifolds fully drain by designing the manual leveller to straighten the tank and the manifold at the same time for a complete drain every time.

No pipes, open manifolds and pull through teats make the Milk Bar Mobile range highly functional and easy to clean!

## Cleaning

A few simple steps and your feeder is clean and ready to go.

1. Use the leveller to drain the tank and manifolds and give them a hose off.
2. Level the mobile. Use hot water and an alkali detergent in the tank and manifolds.
3. Lightly scrub the tank and manifolds.
4. Clean the teats with a horizontal scrubbing action. This bends the teats, forcing water back and cleans the inside of the teat.
5. Rinse clean and you're done!



Ring Tokoroa Engineering for Milk Bar Mobiles,  
Milk Karts and Meal Savers!

0508 333 337





# Classic Range

The Milk Bar Classic Range is perfect for farms where calf paddocks are fairly close to the shed. The Classic Range has a single axle and is a really lovely simple feeder to handle and use. Available in three sizes:

## MB40SC

Teats: 40  
Space: 140mm  
Volume: 500L  
Axle: Single  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 145kg

## MB50SC

Teats: 50  
Space: 110mm  
Volume: 500L  
Axle: Single  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 145kg

## MB60SC

Teats: 60  
Space: 110mm  
Volume: 500L  
Axle: Single  
Length: 2.8m  
Width: 2m  
Drawbar: 1.25m  
Weight: 150kg



# Deluxe Range

Designed for extra durability for longer distances and higher capacity the Deluxe Mobiles have one set of large gauge springs so the feeder stays level as it follows the tow vehicle. This minimises movement of the tow vehicle in uneven terrain. Punctures are reduced as the wheels climb over the top of sharp objects.

Self lubricating and ultra durable centre bush, sideways levelling, a drawbar handle, jockey wheel and an increased wheel base of 1.35m make the Deluxe Range up to the toughest job! Available in nine sizes:



## MB40SD

Teats: 40  
Space: 140mm  
Volume: 500L  
Axle: Single  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 145kg

## MB40TD

Teats: 40  
Space: 140mm  
Volume: 500L  
Axle: Tandem  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 184kg

## MB40T750D

Teats: 40  
Space: 140mm  
Volume: 750L  
Axle: Tandem  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 184kg

## MB50SD

Teats: 50  
Space: 110mm  
Volume: 500L  
Axle: Single  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 145kg

## MB50TD

Teats: 50  
Space: 110mm  
Volume: 500L  
Axle: Tandem  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 184kg

## MB50T750D

Teats: 50  
Space: 110mm  
Volume: 750L  
Axle: Tandem  
Length: 2.2m  
Width: 1.75m  
Drawbar: 1.55m  
Weight: 184kg

## MB60SD

Teats: 60  
Space: 110mm  
Volume: 500L  
Axle: Single  
Length: 2.8m  
Width: 2m  
Drawbar: 1.25m  
Weight: 157kg

## MB60TD

Teats: 60  
Space: 110mm  
Volume: 500L  
Axle: Tandem  
Length: 2.8m  
Width: 2m  
Drawbar: 1.25m  
Weight: 196kg

## MB60T750D

Teats: 60  
Space: 110mm  
Volume: 750L  
Axle: Tandem  
Length: 2.8m  
Width: 2m  
Drawbar: 1.25m  
Weight: 196kg



Patent Application PCT/NZ2016/050190 International patent applications and designs apply.  
Patents apply to feeders NZ Pat NZ Pat 534401 NZ Pat 584477.

# Ring Tokoroa Engineering for Milk Bar Mobiles,

# Super Deluxe Range

Large numbers of calves requires extra functionality such as a limitless steering axle and extra long drawbar to keep tractor wheels away from the manifolds when turning.

High spec 75 x 50mm box section steel chassis with suspension improves the ride and tandem axles at the rear give strength. Front to back as well as sideways levelling gives all calves their share of milk.

Twin tanks holding 550L ea with marked gradients are connected with 50mm taps and plumbing.



## MB80

Teats: 80  
Volume: 1100L    Manifold Volume: 400L  
Front Axle Track: 1.18m    Rear Axle Track: 1.58m  
Length: 5.5m    Width: 1.8m  
Height: 1.2m    Drawbar: 2m

## MB100

Teats: 100  
Volume: 1100L    Manifold Volume: 500L  
Front Axle Track: 1.18m    Rear Axle Track: 1.58m  
Length: 7.1m    Width: 1.8m  
Height: 1.2m    Drawbar: 2m

## Mobile Parts

### Mobile Tanks

500L and 750L with marked gradients. 1.2m diameter. Taps not supplied.

### Milk Bar Leveller

Replacement leveller for all models.

### Rear Drawbar

Available for 50 and 60 teat feeders.

### Mobile Manifolds

Available in: 25 Teats  
30 Teats

# Milk Kart 550L

The Milk Kart 550L is ideal for delivering milk to large numbers of calves!

45cm diameter opening and drain tap makes cleaning easy.

550L tank with marked gradients and large carry tray.

Available in three options:

**MBMK550C Milk Kart 550 Classic:** Gravity outlet only.

**MBMK550D Milk Kart 550 Deluxe:** Complete with a 12 Volt submersible pump.

**MBMIX550 Milk Kart Mixer:** Complete with 2" poly electric start petrol pump.



# Meal Saver

Weather and pest proof, the Meal Saver eliminates meal wastage!

It won't blow over in the wind and keeps meal dry and edible.

Calves easily lift the counterbalanced lids and training is easy.

Volume: 150kg

Length: 1.2m

Height: 730mm

Width: 800mm



NZ Pat # 585960

Milk Karts and Meal Savers! 0508 333 337





# DPT

*Drip Proof Technology*

Milk Bar Teats now feature revolutionary

**Drip Proof Technology!**

See page 9 for details of our latest innovation



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