

volac<sup>®</sup>

# Calf Products



Helping Farmers to  
provide for their Calves

# Introduction

Volac has been involved in calf nutrition for over 40 years and during this time we have committed ourselves to product innovation to ensure we offer farmers progressive products to meet their evolving needs.

Volac offers a systems approach to calf rearing, providing everything from natural alternatives to colostrum, milk replacers and a range of labour saving feeding equipment to suit all types of rearing needs.

All Volac products are supported by our strong technical, sales and marketing teams, who aim to bring you timely husbandry and management information, to help you get the most from your calves.



# Volac Heiferlac Instant



Protein 26%	Oil 16%	Ash 7%	Fibre 0%
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Heiferlac has been developed specifically for the modern dairy cow and has been formulated with very high levels of pure dairy protein, lactose and a specially selected blend of vegetable oils.

Heiferlac has been formulated after careful consideration of the effect the first few weeks of life can have on the modern dairy cow when she joins the milking herd. Feeding Heiferlac to your dairy replacements on today's specialist units will result in the fast frame growth you need in the early part of life to allow your heifers to reach the target weights to bulling and beyond.

## Heiferlac mixing rate

For high performance

150g of milk replacer in one litre of mixed milk. (i.e. 15% solids, equivalent to one and a half pounds in one gallon of mixed milk).

# Volac Blossom Easymix/Freeflow



Protein 23%	Oil 18%	Ash 7.5%	Fibre 0%
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Blossom has formed the heart of the Volac range of milk replacers since its launch in the early 90's. It is formulated to achieve the growth rates needed for high performance dairy and beef calves.

## Blossom Easymix

- Ideal for once and twice-a-day feeding and some ad-lib systems requiring an instant mixing powder.

## Blossom Freeflow

- Ideal for use with the Volac Automatic Feeder and any feeder requiring a free-flowing type powder.

## Blossom standard mixing rate

- 125g of milk replacer in one litre of mixed milk (i.e. 12.5% solids).

# Volac Enerlac Instant/Freeflow



Protein  
20%

Oil  
20%

Ash  
8%

Fibre  
0%

Enerlac has been developed specifically for modern beef enterprises as well as more traditional dairy units

Enerlac will give exceptional cost effective growth rates. With high lactose and oil levels, Enerlac is a high energy feed resulting in not only well grown calves but also good looking ones. Customers who have chosen an automatic rearing system have been particularly pleased with the results obtained when feeding Enerlac.

## Enerlac Instant

- Ideal for once and twice-a-day feeding and some ad-lib systems requiring an instant mixing powder.

## Enerlac Freeflow

- Ideal for use with the Volac Automatic Feeder and any feeder requiring a free-flowing type powder.

## Enerlac standard mixing rate

125g of milk replacer in one litre of mixed milk (i.e. 12.5% solids.)

# Why choose Volac Milk Replacers?

A Unique Package of Nutritionally Superior Products

Product Features	Product Advantages	Benefits to the Calf	Benefits to the Farmer
<b>Concentrated Milk Protein (CMP)</b>	<p>CMP contains a high proportion of 'true' protein and has an amino acid balance closely matching the calf's requirements</p> <p>Essential calcium and phosphorus without high levels of less desirable minerals</p>	<p>More efficient use of protein</p> <p>Feed at a higher concentration without increasing risk of scour</p>	<p>Improved calf performance and health, which means more cost effective growth</p> <ul style="list-style-type: none"> <li>• For dairy calves, achieve 2 year calving target - worth £50/month saved</li> </ul>
<b>Processing under strictly controlled temperature conditions</b>	<p>Integrity of the protein is retained and digestibility is high</p> <p>Biologically important globular proteins (immunoglobulins) retained in the powder</p>	High value, highly digestible proteins	<ul style="list-style-type: none"> <li>• For beef calves, more calves reared per unit per year</li> </ul> <p>Calves have better bloom for increased market prices</p>
<b>Carefully researched blend of fat/oil</b>	Selected to have good physical characteristics and high nutritional value	Excellent nutritional value	Reduced medication costs "Trouble Free Rearing"
<b>Co-spray drying of the liquid oil allows excellent emulsification and homogenisation</b>	Small fat globule size in the finished product and improved fat digestibility	Improved intakes of nutrients	
<b>High Vitamin E and Selenium levels</b>	These support the calf's immune system and antioxidant status	Helping to improve the calf's natural defences and fight off challenges	Increased resistance to disease, helps maintain a healthier calf and reduce medication use and cost
<b>Finished milk replacers are mildly acidified and also contain Gardion</b>	The plant extract, alliin, helps to create the right conditions for beneficial bacteria in the gut		
<b>In-line instantanisation</b>	Ensures excellent mixing characteristics	Consistent liquid milk quality	Easy mixing, labour saving
<b>Double pasteurisation</b>	Destroys most of the bacteria which can be present in whole milk	Significantly reduced risk of exposure to bacteria which can cause disease (e.g. Johnes), compared with whole milk	<p>Improved calf performance and health. More cost effective growth</p> <p>Reduces risk of disease transfer via milk</p>
<b>Relative cost to feed</b>	Cheaper than current milk price		Significant saving per calf through to weaning for bucket fed calves

# Mixing Table

Consult the chart below to see if you are providing your calves with enough nutrition to support the growth rate required, given that a healthy calf converts milk replacer at a ratio of approximately 1.3:1.



Mixing Rate (g/l milk)	Quantity of Milk Replacer Supplied per Calf per Day (g)											
170	340	510	680	850	1020	1190						
160	320	480	640	800	960	1120						
150	300	450	600	750	900	1050	1200					
140	280	420	560	700	840	980	1120					
130	260	390	520	650	780	910	1040	1170				
120	240	360	480	600	720	840	960	1080	1200			
110	220	330	440	550	660	770	880	990	1100	1210		
100	200	300	400	500	600	700	800	900	1000	1100	1200	
90	180	270	360	450	540	630	720	810	900	990	1080	
Litres fed/day	2	3	4	5	6	7	8	9	10	11	12	

Example: To provide approximately 900g of milk replacer per calf per day, there are several options to choose from; two such options (both highlighted) are 6 litres per day mixed at 150g/l, or 10 litres per day mixed at 90g/l. Volac trials using 900g/d of CMR, fed to Holstein heifers starting at 38kg, resulted in calves growing at 780g/d to 11 weeks, finishing nearly 10kg heavier than calves reared on a traditional once-a-day system.

Remember that in cold weather calves will be using more energy to keep warm and growth rates may suffer. As a rough guide feed an extra 0.5 litre of milk per calf per day for each 5°C drop in ambient temperature below 20°C.

# Volac Calf Volostrum

Volostrum is a high quality natural alternative to colostrum and is recommended for use when an adequate supply of good quality maternal colostrum is unavailable.

- Volostrum's guaranteed high specification makes it ideally suited as a first feed for the young calf.
- Volostrum contains a consistently high level of protein and energy.
- Volostrum provides 450g of nutrients in one feed, giving the calf the energy and protein it needs for a good start in life.
- Successfully tried and tested by farmers for over 20 years.

## Controlled trials: Royal Veterinary College

In a controlled trial, 150 calves were divided into three groups. Group 1 suckled colostrum from the cow for up to 24 hours after birth, Group 2 were given both colostrum and Volac Calf Volostrum while Group 3 were given Volac Calf Volostrum only. The results showed that those calves given Calf Volostrum alone were as healthy and viable as calves in the other two groups. Indeed weight gains to 6 weeks were better than for calves given colostrum only, showing that Calf Volostrum supplied complete protection and energy.

## Commercial farm trials

Approximately 750 calves were involved in trials on 40 commercial farms in the UK and Ireland, covering a wide range of breeds and management systems. The trials clearly demonstrated that Volac Calf Volostrum was a highly effective alternative for colostrum. Farmers commented that the Volostrum fed calves looked healthier and livelier. They also found the product convenient to use.



## Typical analysis

**Protein**  
76%

**Fat**  
8%

**Ash**  
3%

**Fibre**  
0%

# Volac ASGold

## An electrolyte with added fibres to promote a healthy gut

Use where there is digestive disturbance (Diarrhoea) or as directed by your vet.

Can be fed on its own, mixed with water or added to milk replacer.

## Benefits of Volac ASGold

- Contains electrolytes and glucose.
- Rehydrates calves effectively.
- Contains natural plant fibres and pectins.
- Helps maintain a healthy gut.
- Aids recovery from digestive upsets.
- No need to withdraw milk, so calves can continue to grow.



- ✓ Re-energises
- ✓ Rehydrates
- ✓ Revitalises
- ✓ Can be fed with milk



# Volac Automatic Feeder

For the successful rearing of larger batches of calves, allowing reduced labour compared with traditional methods of feeding.

Automatic feeders are available for hire or purchase for calf rearing. Each feeder can automatically feed up to 50 calves at one time, dramatically reducing the 'man hours' required for mixing milk and feeding calves, although a high degree of management skill is still essential.

Set the machine to mix at 40°C to provide mixed milk at the teat at approximately 37°C. The machine should be cleaned daily and calibrated regularly, particularly with every new batch of milk powder, as powder density may vary.



## Nutrition

Teat feeding stimulates salivation and the oesophageal groove reflex, which helps improve milk digestion. Young animals suckle on a 'little and often' basis to avoid overloading the enzymes in the digestive system and reducing the risk of digestive disorders. Young animals can achieve their early growth potential by the improved performance obtained compared with a restricted bucket feeding system.

## Pointers for success

- Group animals by weight and age.
- Do not have more than 10 calves per teat.
- Ensure teats are placed at natural height and are set with the outlet on a horizontal plane, allowing milk to flow evenly and with minimal effort.

Diagram of Teat



- Supervised introduction to teat is critical for future success.
- Inspect calves individually each day.
- Clean the mix bowl daily.
- Check machine calibration weekly.
- Provide fresh dry feed and clean water at all times.
- Place machine in a level, well-drained position.
- Teat lines should be as short as possible.
- After each batch of animals, clean auger, check tank for lime and sediment, sterilise teats and milk lines.

# Volac Mini-Mum Warm Milk Calf Feeder

The Volac Mini-Mum feeder provides warm ad-lib feeding for groups of 4 to 6 calves.

The Volac Mini-Mum is a robust moulded plastic feeder which is easy to operate and clean. Most importantly it will save you valuable time during the most labour intensive periods of the year, whilst allowing your calves to maximise their growth potential.

## Features

- 50 litre capacity.
- 2 Supersuckler teats.
- Silicone tubing.
- Thermostatically controlled heater element.
- External pen positioning.
- 24 hour access to liquid milk.

## Benefits

- Ideal for small groups of calves.
- Feeder is ready to use immediately, no additional equipment is needed.
- Complete temperature control at all stages of rearing.
- Weaning can be made easier by gradually reducing the temperature when appropriate.
- Safe and easy to clean and refill.
- Ensures maximum growth opportunities for every calf.



# Volac Computerised Calf Feeders

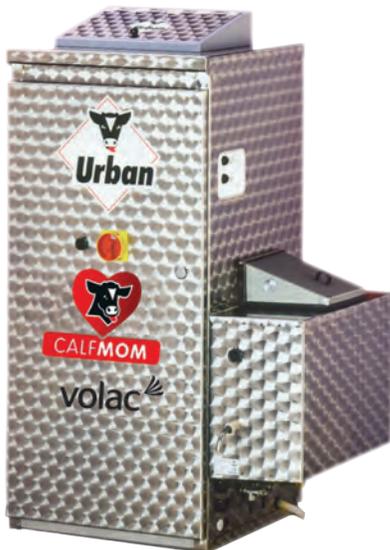
Designed to automatically mix milk (CMR or whole milk) and to control the feeding of each individually identified calf, by restricting them to small portions of milk throughout the day.

The daily milk intake of each calf is preset and the weaning period is also tightly controlled. The preparation and temperature of the milk is constant and the 'hose circulation system' allows automatic rinsing right up to the teat, greatly improving hygiene.

The whole concept is designed to reduce 'man-hours' spent on mechanical tasks and deliver a fully controllable rearing system.

## Benefits of the feeders

- All the convenience of an automated system, with the cost control of a rationed regime.
- Significant labour saving - 95 minutes per calf to weaning saved when compared with twice-a-day bucket rearing.
- Complete control over feeding programme with pre set feeding curves.
- Consistent feeding - same time, same temperature, same proportions.
- Automated weaning curve which encourages early rumen development and improves calf efficiency.
- Daily action list highlights behaviour changes and calves that might require special attention.
- Compatible with surplus/whole milk supplies.
- Self - cleaning.
- Dedicated customer support from Volac.



# The Felinfach Story

## The story so far...

Volac products are synonymous with health and high performance and we are very proud of our manufacturing site at Felinfach where the production of our milk replacers and colostrum substitutes takes place.

The founder of Volac saw the potential value in concentrating the valuable nutrients in liquid whey, a by-product of the cheese making process, to recover valuable whey proteins.

Volac developed the technique of utilising these high value proteins to manufacture nutritionally superior milk replacers.

Globular proteins, also present in high concentrations in colostrum, are only found in the whey fraction of whole milk. Therefore, once captured and concentrated, they offer natural health benefits to young animals and are part of the reason why Volac milk replacers are so good.

### Immunoglobulin content of milk and milk replacers (as % of protein)

Whole milk	1.5 - 1.8
Volac concentrated milk protein based CMR	4.5
Traditional whey based CMR	1.4



# In the Beginning...

Volac acquired the Felinfach milk processing plant back in 1989. Since then more than £1 million a year has been invested in the factory, including installation of ultrafiltration and microfiltration equipment, unique in the animal feed processing sector.

Today, Volac Felinfach is producing high quality milk based feeds from concentrated milk protein for calves, lambs and piglets. Around half of the products are sold to UK and Irish farms and the remainder exported to Europe and beyond.



# Sourcing Quality Raw Material

Felinfach is ideally located in terms of proximity to raw materials. Initially protein was sourced from creameries within a 50 mile radius of the site. Nowadays, as a result of continued growth in business, raw materials are being purchased from as far afield as Scotland.

Transport is a major cost, so now several small preprocessing, ultra-filtration plants have been installed throughout the country, to concentrate protein and reduce volume delivery to Felinfach. Not only does this reduce transport costs, but there are environmental benefits as well.



## Productivity

The Felinfach site maintains certification to ISO9001:2008 and UFAS (Universal Feed Assurance Scheme) in respect of the manufacture of CMR.

The ingredients and formulations can be adjusted to ensure that all products meet specific customer requirements. Volac works with a number of farmer groups who supply quality beef and lamb to supermarkets.

These suppliers require traceability from birth to plate and Felinfach is able to produce milks that are formulated to meet individual requirements and are fully traceable.



If you have any questions please call us on FREEPHONE 0800 919808

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