



The best possible  
**start**

Introducing the new  
Lifeguard milk formula range

Experts in young animal nutrition

volac 

# Volac and the milk circle

For over 45 years, Volac, a British family owned and operated business, has been at the heart of the UK and Irish dairy industry.



# The Lifeguard approach: start with the calf in mind

## What is Lifeguard?

Lifeguard embodies a set of principles from Volac that drive our milk formula development and manufacture.



Under the name of Lifeguard, we have put together the best range of milk formulas on the market.



### The best ingredients

- Immunopro
- Health packages



### The best processes

- Liquid filtration, concentration and evaporation
- Sustainable production
- Performance formulated



### The best range of products

- Lifeguard milk formula range



### The best technical support

- On-farm support
- Training
- Feed for Growth programme

Each Lifeguard formula's designed to meet the different challenges faced by modern livestock farmers, making them more productive and giving calves the best start in life.

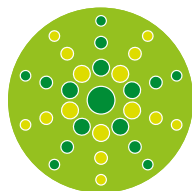
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# The magic of milk: why is it special?

Milk is a complex collection of ingredients designed specifically to 'communicate' to the calf. It does several critical jobs:



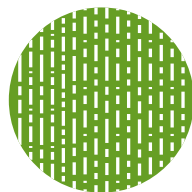
Provides materials for **growth**



Primes the **immune system**



Assists in **pathogen control**

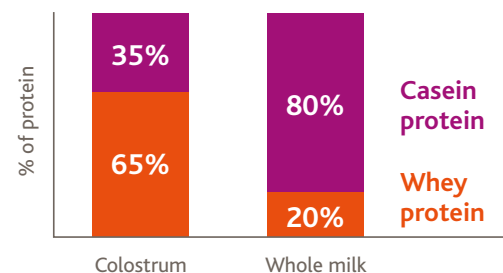


**Shapes** future growth and development

These objectives are predominantly delivered by bioactive components which are at their highest in colostrum, but present at lower levels in milk.

They make a positive difference to the outcome of the calf – to help programme it for long term success.

## Whey protein – fundamental for calf programming

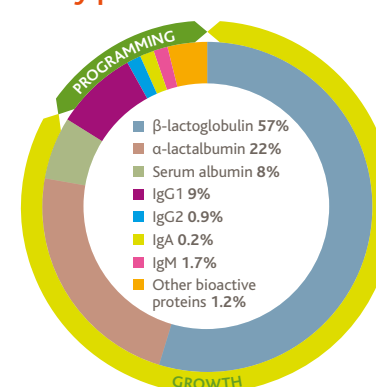


COLOSTRUM: CONTAINS 3x MORE WHEY PROTEIN CONTENT vs WHOLE MILK.

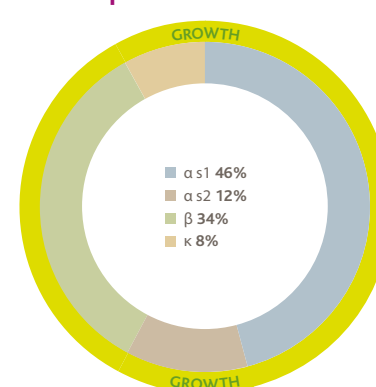
WHEY - CONTAINS THE BIOACTIVE CONTENT FOR CALF SUCCESS.

Whey contains very high levels of the programming material needed for this development.

### Whey proteins\*



### Casein proteins\*



Not all whey is the same - **IMUNOPRO®** captures the magic of milk



# What is imunopro®? Concentrated goodness

We take the goodness of milk and concentrate it. A combination of filtered, evaporated and gently sorted milk constituents are collected at low temperature from whey.

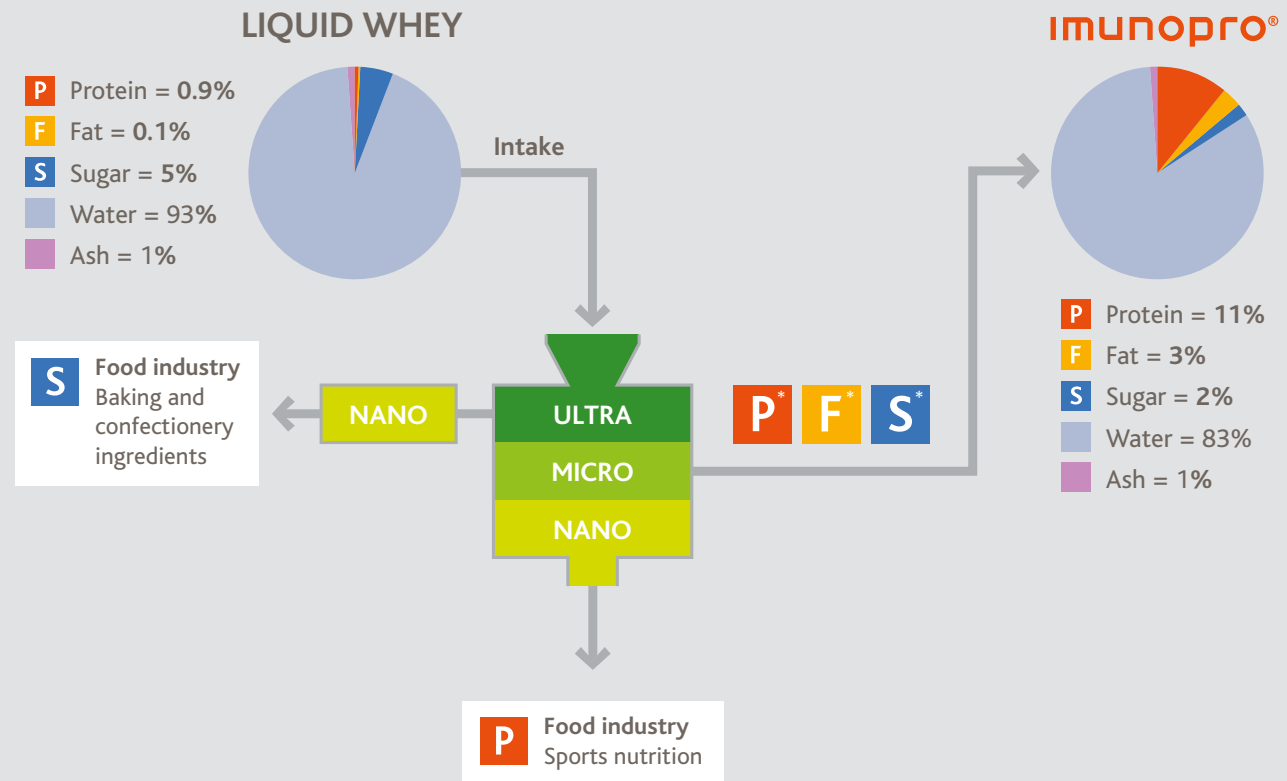
These include:

**P**roteins, **F**ats and **S**ugars, resulting in a highly nutritious bioactive complex known as **imunopro®**

This unique process captures the goodness of milk, for the benefit of the calf.



## The imunopro® process



\*High concentration of bioactive material

# The imunopro® difference: the evidence

## P rotein

### Amino acids for growth and development\*

% OF AMINO ACID IN CRUDE PROTEIN

A vital amino acid for growth

	Milk	Skim milk powder	Whey powder	imunopro®
Lysine %	8.1	7.5	7.8	9.4
Leucine %	9.7	9.6	8.6	11.0

Higher levels of key amino acids

Critical in driving the rate of muscle protein synthesis. It is the reason why concentrated whey protein is the protein source of choice for athletes.

Crucial in early life immune development. We successfully collate these without damage in Imunopro for the benefit of the calf.

### Protein for health\*

% OF CRUDE PROTEIN

	Milk	Skim milk powder	Whey powder	imunopro®
IgG %	<1.8	<0.5	<1.5	>4.5

### Lactoferrin – research findings

- Plays a vital role in innate defences
- Powerful iron binding antibacterial properties
- 2017 trial: supplementation to scouring calves
- Reduction in severity of episodes
- 50% reduction in mortality at 120 days\*\*

Identified in  
imunopro®  
at elevated  
levels

# The imunopro® difference: the evidence

## Fat

FAT % OF DRY MATTER

Milk	Skim milk powder	Whey powder	imunopro®
33	1 <sup>a</sup>	1 <sup>a</sup>	16 <sup>b</sup>

Milk fat exists in droplets of oil surrounded by a membrane containing other fats called phospholipids and sphingolipids. These support calf gut maturation and have anti-bacterial properties.

These are essential nutrients for the growth and health of young animals.

imunopro® concentrates **16x** the amount of milk fats in comparison with whey or skim powders.



## Sugars

imunopro® contains bovine milk oligosaccharides (BMOs).

Modern analytical technology reveals a rich mixture of complex sugars - oligosaccharides - in milk, many of which are bound to proteins and lipids.

Research is establishing in both humans and farm livestock, the important role these sugars play in steering the development of a healthy population of bacteria – the microbiome - in the infant gut.

We know oligosaccharides are enriched in the calf milk formula ingredients we manufacture from whey.

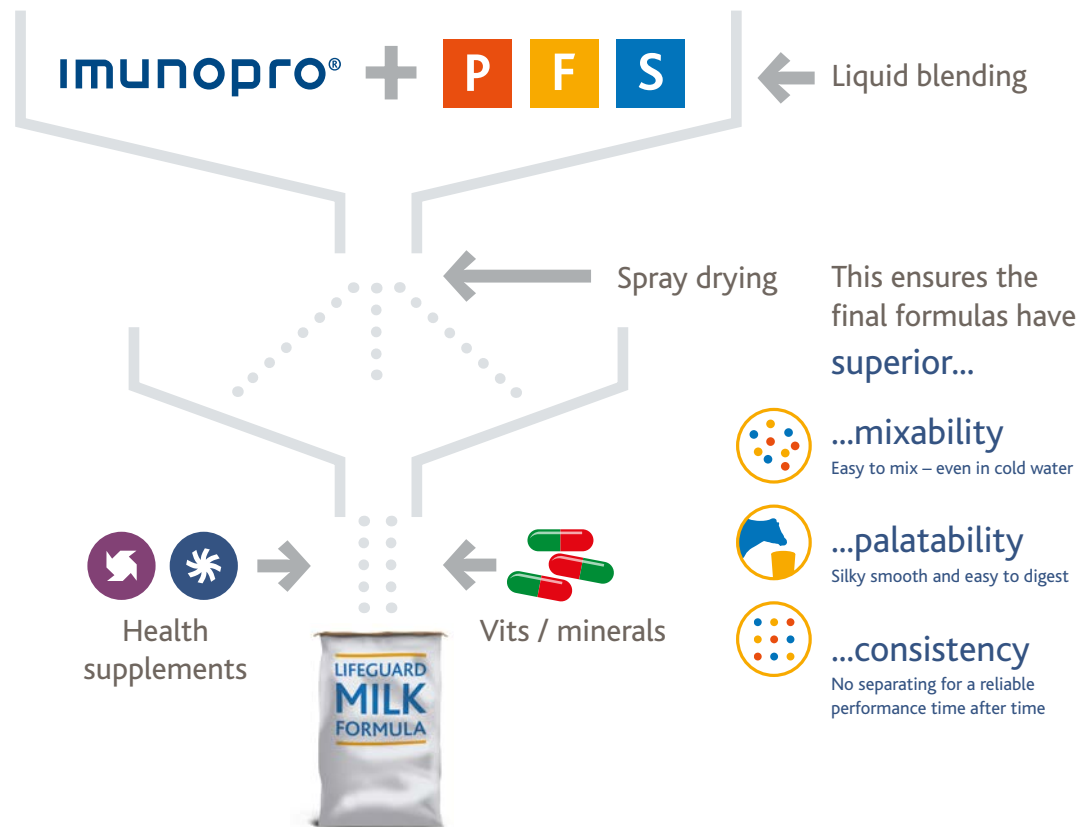


a. Jensen *et al.* (2002, J. Dairy Sci. 85: 295-350)  
b. Volac analytical data

# Performance formulating: true not crude

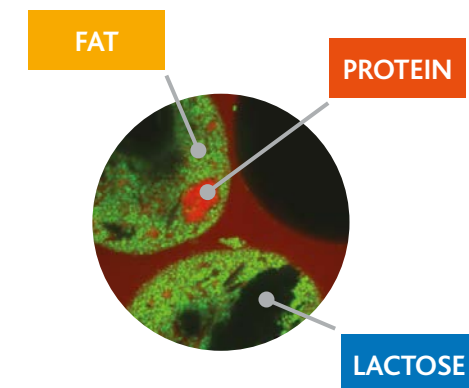
Now you know about the unique nature of our **imunopro®** milk complex, let's look at how we take this magic material and precisely formulate it into all the products in the Lifeguard range.

Performance formulating is all about delivering a finished product that contains the right amount of nutrients to achieve the chosen objectives in a herd.



All this careful balancing is done in a liquid blend, which ensures that when the product is dried, it has a super homogenised quality with undenatured whey proteins and natural 'globular' proteins retained together in a small fat globule size to support healthy growth and high digestibility levels.

Micrograph of a Lifeguard milk formula



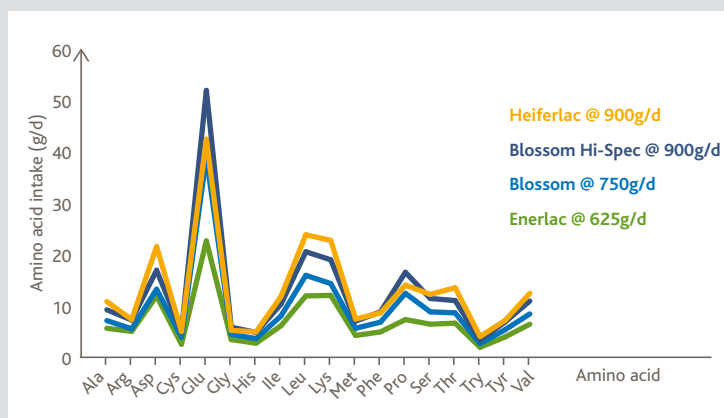


# Performance formulating: true not crude

## P balancing

At this stage, we balance the protein element to ensure the right amount of 'true' protein is present. Crude protein content does not give an indication of what usable protein is available.

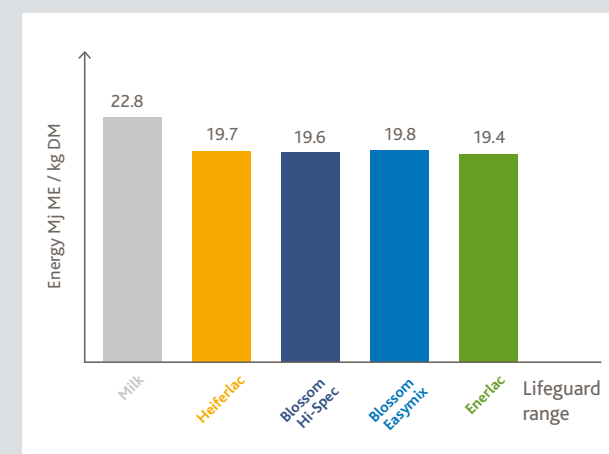
We carefully balance the amino acids to ensure the right levels of growth can be achieved.



## S balancing

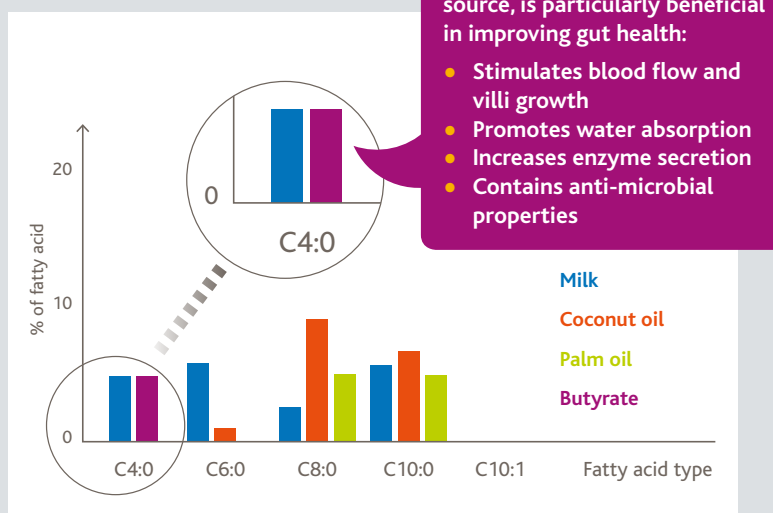
We carefully adjust **imunopro**® and milk sugars to ensure energy levels are at the correct levels for the right amount of growth.

Lactose is the only carbohydrate that a young calf can digest, and provides an immediate energy source.



## F balancing

We utilise high quality vegetable fats to mimic the milk fat profile. One significant fatty acid not supplied is C4:0 – butyrate; we add this to fill the gap.



# Health supplements

As part of creating the most performance formulated products available, we have added two additional ingredients together with selected vitamins and minerals to enhance the new range of milk formulas.

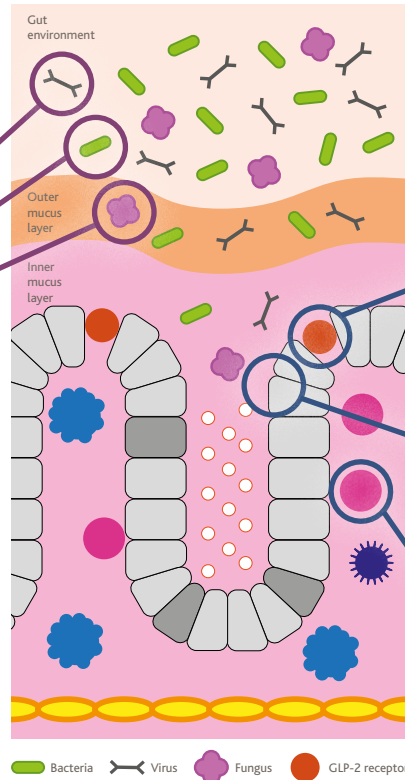


## Derived from Garlic

- Antiviral activity
- Antibacterial properties
- Antifungal response

## Benefits

- Enhances the function of the immune system
- Improves gut health



## Energy uptake

### Stevia

- Drives GLP-2 production
- Increases glucose absorption
- Improves gut performance

## Structure

### Eugenol, Capsicum, Stevia

- Increases mucus production
- Improves villi height

## Immunity

### Capsicum, Anethol

- Increases B- and T-cells
- Reduces inflammatory response

## Benefits

- Improves gut performance
- Improves nutrient absorption
- Decreases risk of diarrhoea



## Vitamins and minerals

Name	Amount per kg feed
Vitamin A	25 000 IU
Vitamin D3	10 000 IU
Vitamin E	500 IU
Vitamin K3	3 mg
Vitamin B1	5 mg
Vitamin B2	3 mg
Vitamin B6	3 mg
Vitamin B12	60 mcg
Vitamin C	100mg
Nicotinic Acid	20mg
Biotin	50mcg
Pantothenic Acid	10mg
Iron	100 mg
Copper	10 mg
Manganese	40 mg
Zinc	50 mg
Selenium	0.4 mg

67% increase

Important in the process of bone development and immune system. New level assists immune status of the calf in the face of a disease challenge.

67% increase

An important anti-oxidant. Higher growth plane calves respond well to increased vitamin E.

25% increase

Improving blood quality (haemoglobin production) and therefore oxygenation.

33% increase

Vital for bone and joint development - especially in fast growing calves.

# The Lifeguard range

Our new range of milk formulas has been designed and produced to perform. Not just today, but every day. Consistently supplying the same high quality performance in every bag.

- Everything we've learnt about milk formulas over 45 years
- Lifeguard values in every bag
- **imunopro®** inside – the magic of milk
- Performance, not cost formulated
- Specific health packages
- Transparent specification and formulation breakdown

We are proud of the quality of the products we have produced. We care about the ingredients used, and design the formulas specifically for the need of the calf. Calves deserve the best start in life.

**imunopro®**  
INSIDE



**volac** 

# HEIFERLAC®

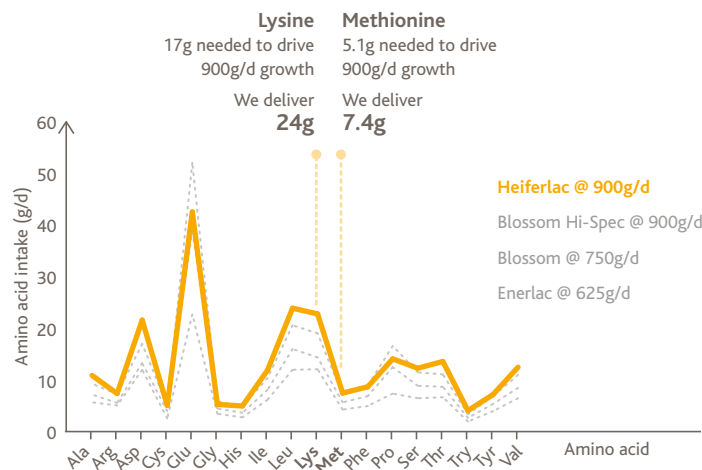
When only the best will do

DESIGNED  
TO DRIVE  
900G  
GROWTH  
PER DAY\*

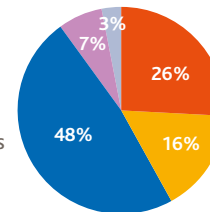
- Maximum **imunopro**® content for long term performance
- Maximum programming and maximum growth
- Ideal for Pedigree and high EBI herds
- Gardion health package
- Highest leucine level



**GARDION® BUTYRATE**



- P** Protein
- F** Fat
- S** Sugar
- Minerals
- Other\*\*



**Energy**  
17.7 MJ ME  
at feed rate  
of 900g/d



\*Based on recommended feeding rates with access to ad lib starter feed and water  
\*\*'Other' includes moisture, vitamins, residual carbohydrates and feed additives

# BLOSSOM<sup>®</sup>

When you need high performance

## HI-SPEC

DESIGNED  
TO DRIVE  
900G  
GROWTH  
PER DAY\*

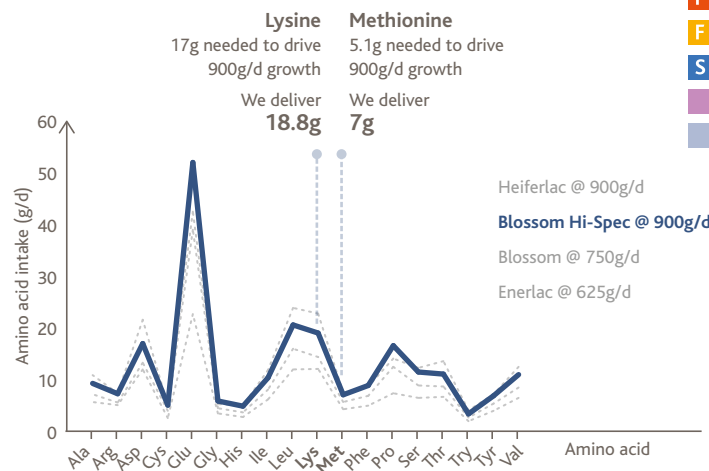
- The considered solution for large herds
- Developed for growth, for the business producer
- Very high **imunopro<sup>®</sup>** content
- Nutry-Lyst health package
- Very high leucine level



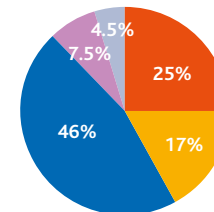
NUTRY-LYST™



BUTYRATE



- P** Protein
- F** Fat
- S** Sugar
- Minerals
- Other\*\*



Energy  
17.6 MJ ME  
at feed rate  
of 900g/d



\*Based on recommended feeding rates with access to ad lib starter feed and water

\*\*'Other' includes moisture, vitamins, residual carbohydrates and feed additives

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# BLOSSOM<sup>®</sup>

## EASYMIX

The tried and trusted performer

DESIGNED  
TO DRIVE  
750G  
GROWTH  
PER DAY\*

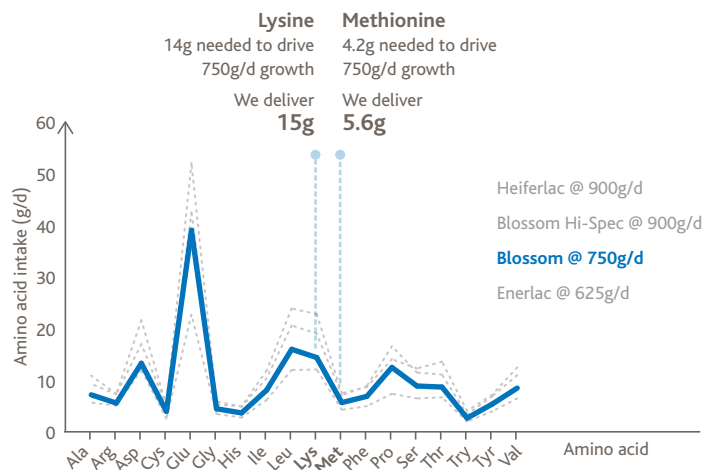
- Tried and trusted performance
- Great results every time
- High **imunopro<sup>®</sup>** content
- Gardion health package
- Higher levels of leucine



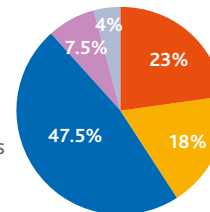
GARDION<sup>®</sup>



BUTYRATE



- P** Protein
- F** Fat
- S** Sugar
- Minerals
- Other\*\*



**Energy**  
14.85 MJ ME  
at feed rate  
of 750g/d



\*Based on recommended feeding rates with access to ad lib starter feed and water  
\*\*'Other' includes moisture, vitamins, residual carbohydrates and feed additives

# ENERLAC™

The cost effective solution

DESIGNED  
TO DRIVE  
625G  
GROWTH  
PER DAY\*

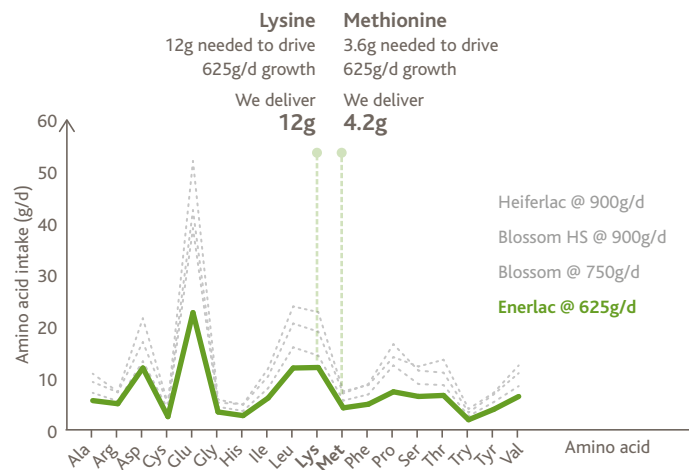
- A carefully selected blend of **imunopro®**
- Specially designed for beef or mixed enterprises
- For non-replacement animals
- Gardion health package
- Elevated leucine



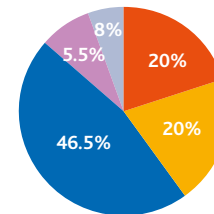
GARDION®



BUTYRATE



- P** Protein
- F** Fat
- S** Sugar
- Minerals
- Other\*\*



Energy  
12.1 MJ ME  
at feed rate  
of 625g/d



\*Based on recommended feeding rates with access to ad lib starter feed and water

\*\*'Other' includes moisture, vitamins, residual carbohydrates and feed additives

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# Experts in young animal nutrition

We have over 40 years' experience of both feed and feeding expertise.

Our superb range of new Lifeguard milk formulas is supported by the best technical support and training available in the industry today.

We also offer a comprehensive range of feeding equipment, from fully computerised systems to more basic setups, giving farmers the flexibility to choose a system for their farm requirements.



Urban  
computerised  
feeders



Förster-Technik'  
feeders







[www.feedforgrowth.com](http://www.feedforgrowth.com)

Grow better cows with our birth to weaning programme.

It's the first 3 months that matter in determining an adult cow's lifetime performance.

That's why Volac created **Feed For Growth (FFG)**.

Designed around 3 key management areas...



... and 4 simple stages to follow

#### 1. UNDERSTAND

the opportunity and how to achieve it

#### 3. MANAGE

the FFG programme and monitor the outcome

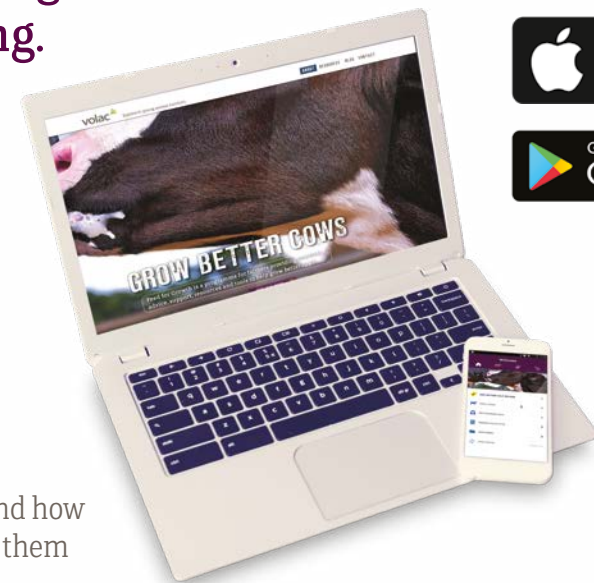
#### 2. PLAN

your targets and how to accomplish them

#### 4. REVIEW









and adjust if necessary

And now look out for FFG Stage 2, with new interactive tools to make calf rearing even more rewarding.



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# The Lifeguard range – at a glance

Product	Growth target per day	imunopro®	P Protein	F Fat	S Sugar	Supplements	Leucine % of total formula	Lysine % of total formula	Methionine % of total formula	Energy Mj ME/kg DM	Mixing rate
<b>HEIFERLAC</b>	900g	★★★★★	26%	16%	48%	 <b>GARDION®</b>  <b>BUTYRATE</b>	2.64	2.52	0.82	19.7	150g/L
<b>BLOSSOM</b> HI-SPEC	900g	★★★★★	25%	17%	46%	 <b>NUTRY-LYST™</b>  <b>BUTYRATE</b>	2.28	2.09	0.78	19.6	150g/L
<b>BLOSSOM</b> EASYMIX	750g	★★★★★	23%	18%	48%	 <b>GARDION®</b>  <b>BUTYRATE</b>	2.12	2.00	0.74	19.8	125g/L
<b>ENERLAC™</b>	625g	★★★	20%	20%	46.5%	 <b>GARDION®</b>  <b>BUTYRATE</b>	1.90	1.92	0.67	19.4	125g/L



# The Volac milk formula range

- The Lifeguard approach – using the best ingredients, with the best processes, for the best results
- Unique Immunopro inside – capturing the magic of milk and giving the calf the best possible start
- Unique liquid blending to capture flavour, mixability, consistency and essential nutrients
- Formulated for the best performance, not cost driven
- An unrivalled range based on over 45 years of experience, designed to meet the challenges of today's dairy farmers
- Consistently supplying the same high quality performance in every bag
- If it doesn't say Volac on the bag, it hasn't got Volac's unique formula inside
- Volac - family owned and a proud supporter of the dairy industry



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