





Fat composition: crucial to calf development

LifeStart Science demonstrates that fat inclusion and composition is crucial to calf development. Fat provides dietary energy and essential fatty acids, which have important structural and metabolic functions in newborn animals. Fat is also associated with gut health and the stimulation of suckling activity.



Research has shown that a higher fat inclusion in milk replacers that more closely align with bovine milk brings multiple benefits:

- Reduced pre weaning mortality¹
- Improved health in terms of faecal consistency²
- Reduced therapeutic interventions³
- Greater gastrointestinal development⁴
- Reduction in hunger related behaviours, thereby enhancing calf welfare⁵

Bovine milk and traditional calf milk: spot the differences

The right composition of fat can elevate calf health and performance beyond anything experienced in the industry. Fatty acids are the building blocks of fat.

There are 400 different fatty acids in bovine milk, which makes it the most complex of all the natural fats. Research shows that the fatty acid profile of traditional calf milks does not yet sufficiently match the fatty acid profile of bovine milk (Figure 1), but not for long. Cutting edge research from Trouw Nutrition introduces the new standard in calf milk performance with new LactoFat Pro technology.

The differences in fatty acid composition of traditional calf milk based on coconut and palm oil versus bovine whole milk (milk fat) and Milkivit ONE

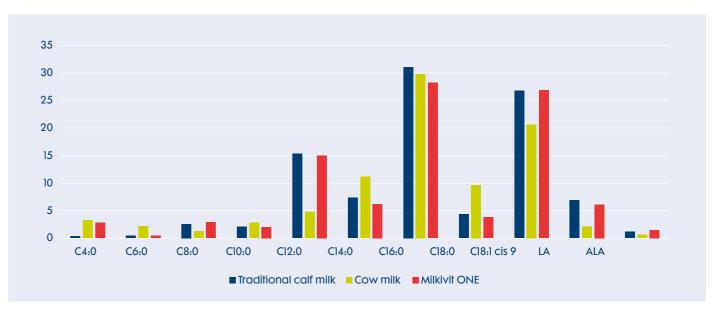


Figure 1

2 Milkivit ONE | The power of mother nature 3 Milkivit ONE | The power of mother nature

LactoFat Pro: a unique fatty acid technology

Milkivit ONE is a patent pending protected Energized Calf Milk, powered by a unique fatty acid technology. This fatty acid profile closely resembles that of fat in bovine milk, to elevate calf performance and health to the next level. The power of mother nature!

Key benefits for lifelong performance

1. Enhanced rumen and intestinal development

Research shows that the fatty acid profile of Milkivit ONE leads to improved rumen development during the milk feeding phase (Figure 2).

Improved rumen development in 5 week old calves

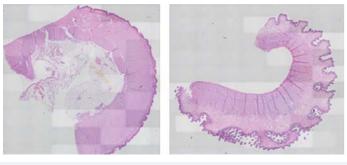


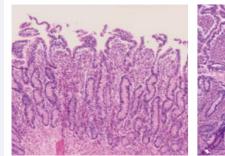
Figure 2

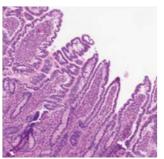
Control group

Milkivit ONE

Histological research shows that the intestinal structures in calves that were fed Milkivit ONE were more developed, with significantly longer villi length (Figure 3). Additionally, the stronger intestinal development supports a trend for higher fat digestibility in calves.

Enhanced intestinal development of calves fed Milkivit ONE





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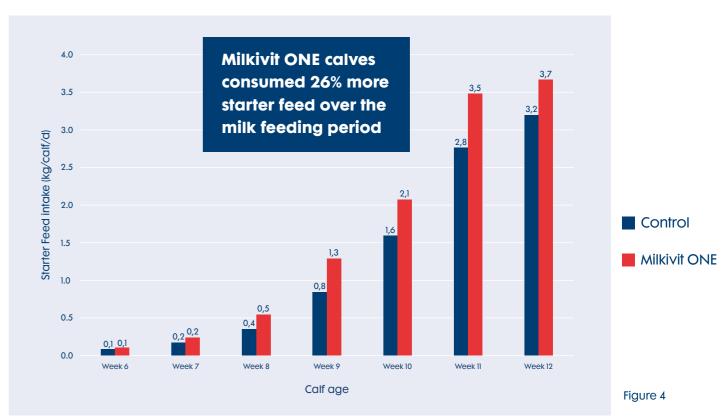
Control group

Milkivit ONE

2. Higher starter feed and energy intake

The significant improvement in rumen activity and intestinal development leads to optimal digestion and improved energy intakes from milk and starter feed (Figure 4), which in turn supports a smoother weaning transition and promotes optimal growth rates that develop a robust and resilient calf at weaning and beyond.

Improved starter feed intake feeding Milkivit ONE adlib and control treatment in weeks after birth.





3. Improved health

The correct balance of fatty acids in Milkivit ONE supports gastrointestinal tract integrity, which plays an important role in protecting the calves against diarrhoea. Feeding Milkivit ONE has shown to reduce the incidence and severity of diarrhoea in calves (Figure 5). Additionally, calves fed Milkivit ONE were found to have less treatment days and therefore a lower risk of mortality compared to a control group, which was fed Energized Calf Milk.

Incidence and severity of diarrhoea

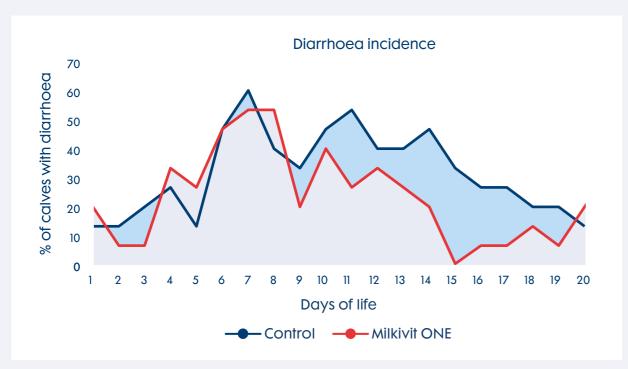


Figure 5



4. Responsible vitamin and mineral nutrition

LifeStart Science shows that correct trace mineral supplementation of calves supports performance in terms of health status, growth rate and structural development.

Some trace minerals can be accumulated in the calf in utero. It is therefore critical that an appropriate supply is established at birth and maintained during the calf rearing period. Correct supplementation can also play an important role in minimising faecal excretion which has environmental benefits.

Reviewing the latest research some key changes have been made to the trace element levels in Milkivit ONE. These changes ensure calf requirements are satisfied whilst minimising the risk of adverse interactions and possible environmental impacts.



Milkivit ONE: A true game changer



Milkivit ONE offers the cow's milk feeding sector the most nutritionally comparable product available in the industry. It is well accepted that bovine milk can exist in several different forms, each with a different potential impact on health, performance and convenience.

Milkivit ONE is a true game changer with a fortified fat composition that is proven to enhance rumen development supporting solid feed intake.

Alongside the previously known benefits of calf milk versus bovine milk, including feeding consistency, reduced pathogen and disease transmission alongside a balanced mineral content, Milkivit ONE goes above and beyond to exceed performance.



Milkivit ONE is a patent pending protected next generation Energized Calf Milk, which compared to traditional calf milk, provides a superior nutrient supply maximizing health and calf performance both pre and post weaning.



Want to know more about the advantages of fatty acid technology? Ask one of the Trouw Nutrition Young Animal Feed team members for more info or have a look at www.trouwnutrition.co.uk.



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