



**BEWITAL** agri  
specialist in milk & fat

**gutit!**

**ANIMAL HEALTH  
BEGINS IN THE GUT**

## Animal health begins in the gut

You know that the health of your animals is one of the most important prerequisites for the economic success of your farm.

But did you also know that 70 to 80 percent of an animal's immune system is located in the gut? So the gut plays a key role in health and performance. Therefore, our primary goal should be to promote healthy intestinal development as early as possible and to maintain it afterwards.

Because: Only a healthy intestine can optimally absorb and digest nutrients.

### The sooner the better

It is known that intestinal health can be positively influenced through feeding. Various active substances show a positive effect on intestinal health.

When building up a healthy intestinal flora, it is important to start as early as possible. This means already in the first days of the animal's life or optimally already before birth via the mother's diet.

## Gut it!

Our goal is to create healthy animal nutrition together with you. That is why we focus on natural feeding concepts that can help to develop the intestinal health of your animals as early as possible and maintain it in the long term.



**Let's „gut it!“.**  
We urge you: Ensure a healthy intestinal flora for your animals now.

Take a look at our video.

# gutit!

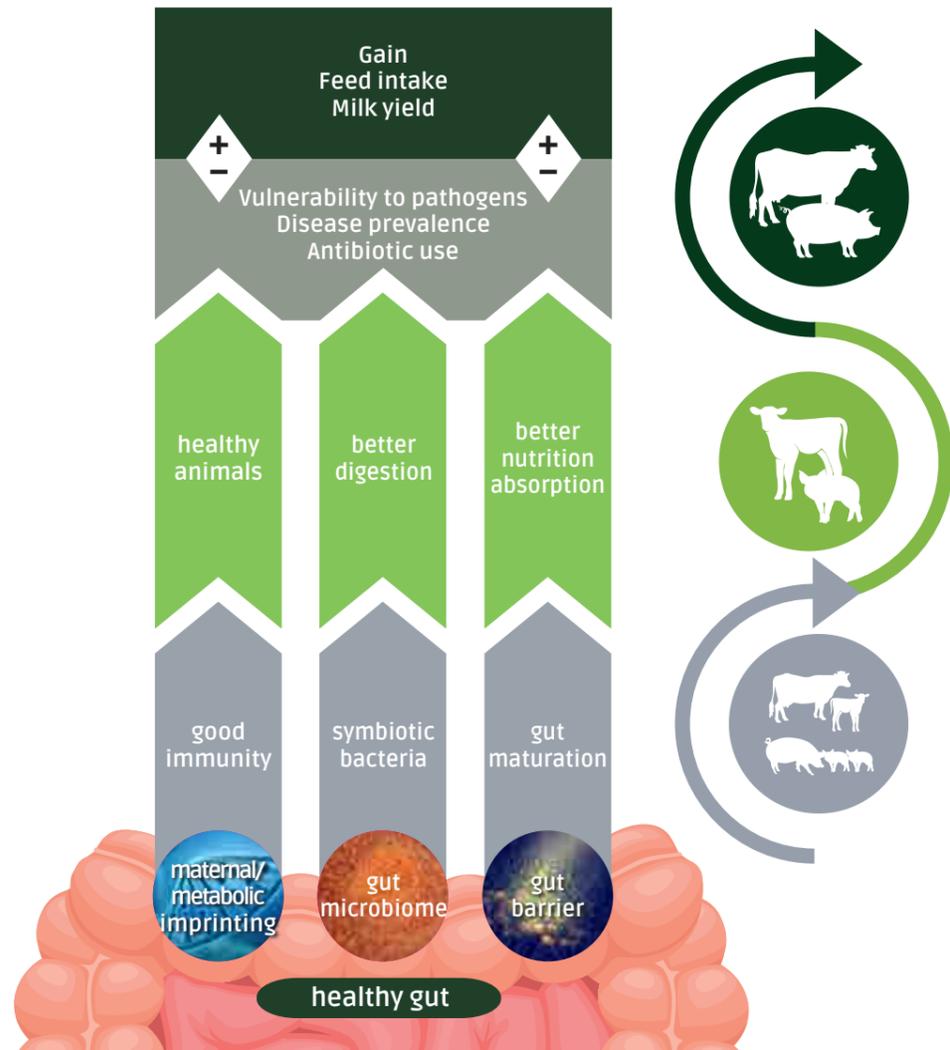


## Intestinal health in piglets and calves

The largest organ in the body that is exposed to the outside environment while performing a number of complex functions is the gut. The gut is one of the most important aspects of immunity, as 70-80% of the body's immune cells are found in the gut.

The gastro-intestinal tract's most well-known functions are digestion of feed and absorption of nutrients. In addition to aiding in digestion, the intestinal mucosa serves as a barrier to stop germs and toxins from passing through.

The maternal / metabolic imprinting, the gut microbiome and the gut barrier are interrelated aspects of gut health that play a critical role in early life development and overall health. The animal's health, well-being, and performance can all be enhanced by modifying the gut microbiome and its metabolites through for example dietary adjustments of feed and feed supplements. Because finally a healthy intestine is crucial for the development of a healthy animal.



## Maternal / metabolic imprinting

Maternal or metabolic imprinting and the development of the gut microbiome begin before birth in the womb and continue with the intake of colostrum. Colostrum primarily serves the transmission of immunity, but also has a very important function in the bacterial colonisation of the intestine.

Colostrum intake immediately after birth has a great influence on later life performance. Therefore, it is particularly important to pay attention to the quality and quantity of the antibody-rich colostrum. What is missed in the young animal cannot be made up for later.

## Gut microbiome

The microbiome is a group of microorganisms in the gut system of all living beings that functions like an organ. It influences resistance and response to stimuli and nutrients. Therefore, it is crucial for the health and well-being of animals and humans.

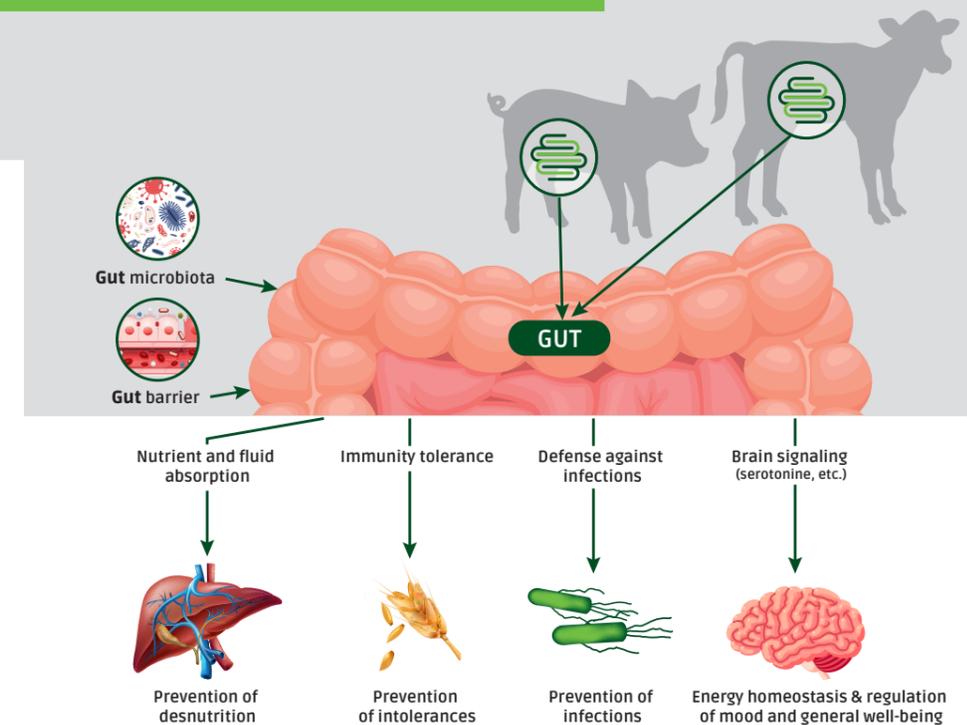
The animal's gut health status can be impacted by a number of factors, such as management, pathogen pressure, and diet, which can result in microbiome dysbiosis, disturbance of intestinal homeostasis, gut mucosal barrier leakage, and inflammation. Modulation of the gut microbiome can improve the growth and promote health in piglets and calves.

In our **BEWITAL** products, we use only high-quality and highly digestible components in an optimal combination. This enables an optimal supply of nutrients and energy supply and promotes intestinal development.

## Gut barrier

The gut barrier acts as a physical and functional barrier between the gut lumen and the body's internal tissues. It helps to prevent the passage of germs and toxins into the bloodstream.

Newborns only have passive immunity via the colostrum. The development of their own immune status is therefore a critical phase in piglet and calf rearing.



## Our piglet concept to promote intestinal health

In order to provide the piglet with the best possible conditions for a successful start, it is important to influence the intestinal development in a positive way as early as possible - optimally already before birth through the mother sow's diet. Directly after birth we recommend the use of our **BEWI-SAN** products, followed by **BEWI-MILK**® piglet milk. By promoting early feed intake, the development of the gut microbiome and the gut barrier is positively influenced.

Targeted feeding makes a decisive contribution to the success of piglet rearing. What is missed in piglet age cannot be recovered later on during fattening or breeding.

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Our **BEWI-MILK**® product range is equipped with a special safety package. The **BEWITAL**-Vitality-System (BVS) makes a decisive contribution to maintaining intestinal health.



matrix-encapsulated  
MCFA combination



post colostrum milk



early feed intake



piglet milk

Sow

**BEWI-FATRIX® SynerG+**

7 days before birth

Weaning

Piglet

**BEWI-SAN Piglet Start or Digest**

Day 1

Day 4

**BEWI-MILK®**

Day 14

**BEWI-MILK®** and/or prestarter

Weaning

## Our calf concept to promote intestinal health

Intestinal health is a crucial factor for well-being and performance. The intestines of newborn calves are still developing and are therefore more susceptible to disorders.

It is important to support the intestinal health of the calf as best as possible from the beginning. Adapted feeding is of great importance in this context.

With our **BEWI-SAN** products you can positively influence the intestinal microbiome and the intestinal barrier from the first day of life. For this purpose, we recommend a high-quality calf milk (e.g. **BEWI-MILK® AM 9**). Our calf milk contains with our **BEWITAL-Vitality-System** (BVS 2.0) all the important safety components for a healthy intestine.

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colostrum supplement

infectious diarrhea

whole milk supplement

calf milk

**BEWI-SAN & BEWI-MILK®**

Day 1

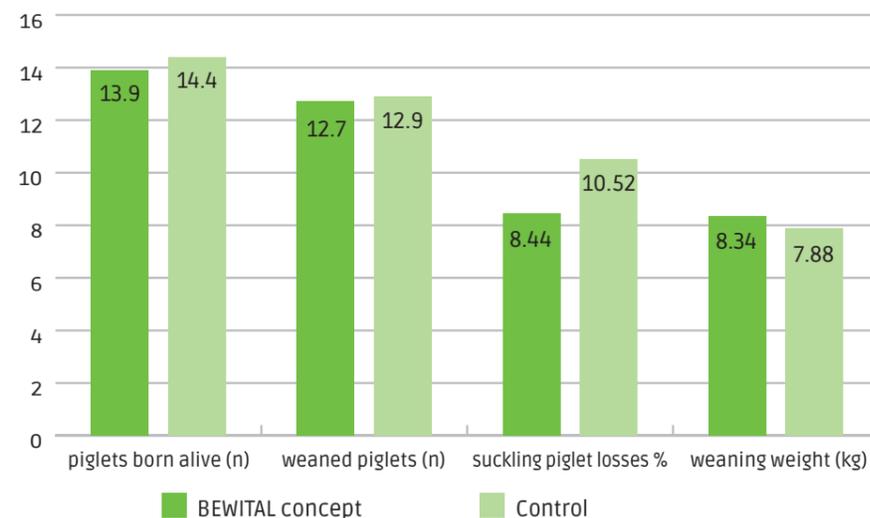
Weaning

## Promoting early intestinal development

On our partner farm with 500 sows, the **BEWITAL** concept was tested in comparison to standard feeding. With the **BEWITAL** concept, there was added 0.4 % **BEWI-FATRIX® SynerG+** into the lactation feed of the sows. From the 2nd day of life, the suckling piglets were offered **BEWI-SAN Digest** for free intake in the piglet dish (50 g/litre) directly after the colostrum. From the 5th day of life, the group was switched to **BEWI-MILK®** piglet milk.

The control group did not receive **BEWI-FATRIX® SynerG+**. The piglets received a standard electrolyte drink from the 2nd to the 5th day of life. After that, they were switched to piglet milk.

The **BEWITAL** concept is convincing in practice:  
Higher weaning weights and lower suckling piglet losses



### Conclusion:

In the practical test, suckling piglet losses were reduced by 2%. The early feed intake led to a 470 g/piglet higher weaning weight and a 5.6 kg higher litter weight compared to the control group.

**BEWI-SAN Digest** promotes early feed intake and has a positive effect on intestinal maturation immediately after birth. The influence of the colonising gut microbiota on gut development is crucial in this early phase. This has long-term effects on health and performance.

The supplementation of **BEWI-FATRIX® SynerG+** to sows around birth as part of maternal imprinting has a positive effect on colostrum quality. As a result, disease pressure can be lowered in a targeted manner and suckling piglet losses reduced.

Our recommendation:  
Feed the sows with **BEWI-FATRIX® SynerG+** and the piglets with **BEWI-SAN Digest**.

## Calves need iron

According to Bostedt et al. (1990) 18.8 % of all naturally born calves show a lack of iron. In case of extended birth this value increases up to 42.2 %.

Compared to the calf's nutritional demand, whole milk contains less trace elements, especially iron. If calves are only fed whole milk, the supply of iron is insufficient. Iron is not only an essential component for the formation of the blood element haemoglobin, but is also producing antibodies which fight against infections. Anaemia, lower daily weight gains and a weak immune system are among the most significant consequences of iron deficiency.

• Take care about an adequate supply of iron, particular in case of whole milk feeding.

• The current recommendation is up to 100 mg iron per animal per day and is ensured by application of milk replacer.

Fe

Comparison of an additional iron supply by 10 or rather 50 mg iron/kg milk replacer (Gygy et al., 1993)

Iron per kg milk replacer	10 mg	50 mg
Iron content in the blood	15 µmol/L	15 µmol/L
Iron content in the blood 13 <sup>th</sup> week of life	4 µmol/L	15-20 µmol/L
Rectal temperature > 39,5 °C	88 x	30 x
Antibiotic treatments	44 x	16 x
Heart- and respiratory rate	increased	
Daily weight gains		+ 160 g

### Conclusion:

Particularly in the case of intensive feeding already in the whole milk phase (metabolic imprinting), the natural iron content in breast milk is not sufficient and has a performance-limiting effect up to an increased susceptibility to infectious diseases. Besides safeguarding the iron supply, the additional safety components in **BEWI-SAN Milk+** and **BEWI-SAN Prevent C** actively support the intestinal microbiome, stabilise physiological digestion and improve feed intake and growth.

Our recommendation:  
Ensure iron supply with **BEWI-SAN Milk+** or **BEWI-SAN Prevent C**.

# **BEWITAL agri**

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