

orgacell sc mb

1 feed supplement, 4 components:
yeast (living and inactivated), mycotoxin binding agent and phenol



- stabilizes the rumen, especially if animals are stressed
- supports feed intake
- **special flavouring**
- contains bentonite, which binds the mycotoxin aflatoxin B₁ in cattle, pig or poultry keeping

Our live yeast product **orgacell sc[®] mb** combines the positive effects of live yeast, inactivated yeast and phenol with aflatoxin B₁'s ability to bind bentonite.

Application: Start 4 weeks before calving and continue feeding throughout lactation and up to the dry period. **orgacell sc[®] mb** is also suitable for cattle fattening or for female breeding stock.

Dosage: Feed 20 g of **orgacell sc[®] mb** per cow per day.

Packaging: 20 kg bag

The live yeast in **orgacell sc[®] mb** consists of spheres of live yeast cells, coated by a layer of inactive yeast. This ensures that the live yeast will stay inactive until it enters the rumen, all the while remaining protected from air, moisture and fermentation acids.

A well-functioning rumen is the prerequisite for healthy, high-performing, fertile cows.

Yeast has long established benefits in animal feeding. Numerous trials confirm its effects on fibre digestion, animal health and performance.



Live yeast application – average effects of two trials

1. Field trial in France, 541 dairy cows on 22 farms
2. University of Utrecht, 67 dairy cows



production of milk fat & -protein				milk yield	
milk fat (g/day)		milk protein (g/day)		milk yield (kg/day)	
untreated	live yeast	untreated	live yeast	untreated	live yeast
1. 1199	1254 (+ 55 g)	894	938 (+ 44 g)	27,1	28,6 (+ 1.5 kg)
2. 1360	1380 (+ 20 g)	1170	1230 (+ 60 g)	33,8	35,7 (+ 1.9 kg)

source: Lesaffre Feed Additives

Fibre digestibility

Despite a comparatively low daily dosage, the positive effects of yeast in the rumen are quite significant. Positive effects on fibre digestion may be seen in the faeces' composition after approx. 4 weeks. Less feed residue means that more nutrients will be at the animals' disposal.

Sieve test

Using the simplest of means, the sieve test provides the easiest way to see the effects of feeding live yeast. Put a sample of manure in a common kitchen sieve and rinse until the water runs clear. The undigested feed components will remain in the sieve. The amount and type of the residue shows the digestion's intensity. After 3 - 4 weeks of feeding **orgacell sc[®] mb**, repeat the test. Feeding of live yeast is clearly visible in a reduced amount of residue – especially the amount of maize kernels is significantly reduced.



feed ration **without** live yeast



feed ration **with** live yeast

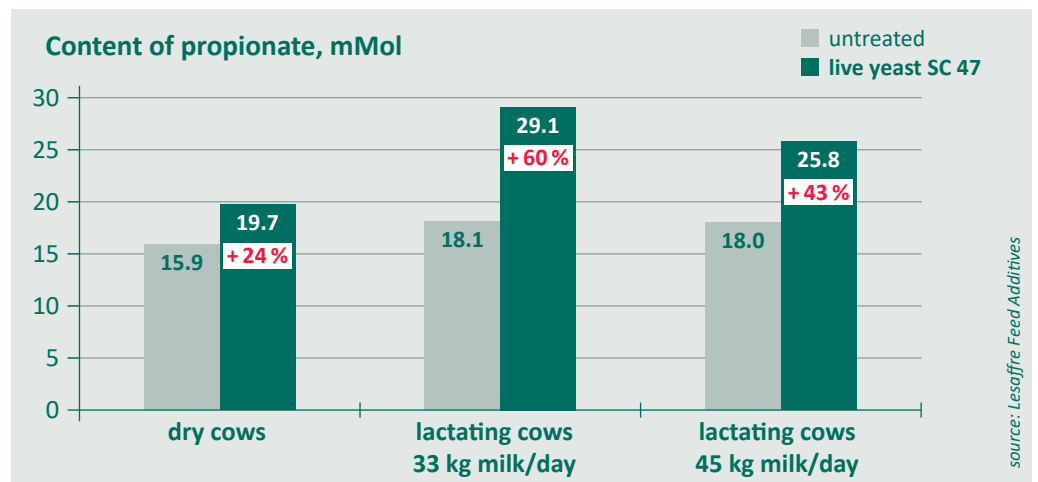


Effects of the live yeast used in orgacell sc[®] mb, *Saccharomyces cerevisiae*, on the rumen

Live yeast consumes ruminal oxygen

Live yeast reduces oxygen, so the number of cellulose-degrading microorganisms increases. This may be observed in the animals' manure after just a short period of time: fibre and kernel residue is reduced.

As live yeast binds the oxygen, a higher amount of free hydrogen will be available for the formation of propionic acid. In the liver, this acid is subsequently transformed into the energy source glucose.

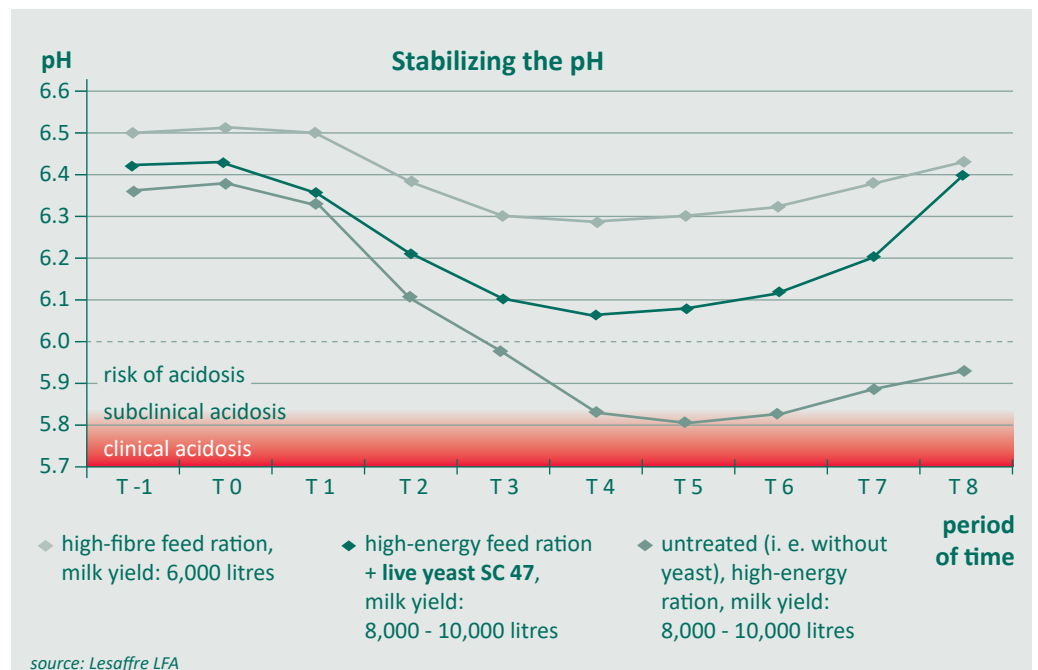


Ruminal cross-section



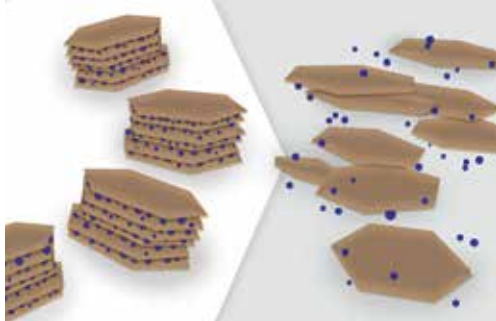
A high-capacity rumen features a dense "lawn" of villi. Due to acids, low pH levels may damage the villi in such a way that the "lawn" becomes positively riddled with holes and feed digestion deteriorates.

Live yeast keeps rumen pH at optimal level



Ruminal pH is kept at the required level thus protecting the mucosa and microflora.

Bentonite as a binding agent



Bentonite has a smectite content which is $\geq 70\%$ and has been approved by EFSA (European Food Safety Authority) as a

The erratic mycotoxins

Fungi can grow on forage both in the field and during storage. During reproduction, fungi produce toxins, which are often not visible and hard to diagnose in the animal. There is hardly any forage, which is not prone to fungus growth. According to climate, several different toxins may be found in the feed and more often than not, their harmful effect increases. According to the rumen's condition, microorganisms can render some of the mycotoxins innocuous. If the contamination gets too high or the animal

Phenols

orgacell sc® mb contains a standardized phenol component. Phenols have the ability to render free radicals harmless. Free radicals have negative effects on animal health and are for example produced, if the animal is exposed to heat, a high level of stress, needs to deliver a high level of performance or is giving birth.

Yeast

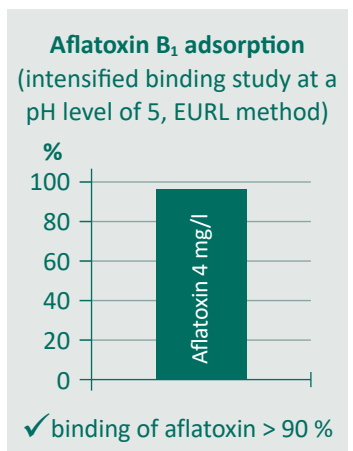
Inactivated yeast contains enzymes and B vitamins (among others) and has a positive influence on the intestinal microflora. Certain substances of the

mycotoxin binding agent for aflatoxin B₁. Clay minerals such as bentonite consist of individual silicate layers which lie on top of each other like leaves. The space between the layers provides room for foreign ions and molecules. Smectite has a particularly large inner surface of 600 - 800 m² per g and is as such able to accommodate organic complexes like myco- or endotoxins and extract them from the animal.

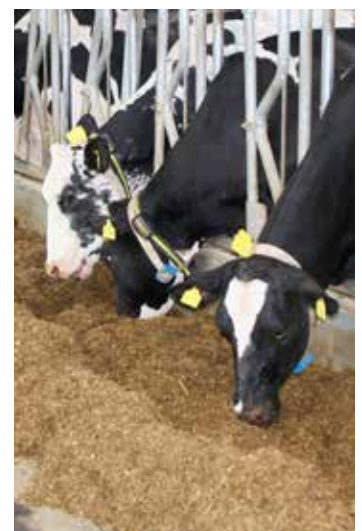
is weakened this will result in a drop in performance, anorexia, a shaggy coat and in most cases an increased cell count due to the increased immune response of the udder. Therefore, a continuous, prophylactic administration of mycotoxin binding agents makes a lot of sense in order to keep the contamination as low as possible and ensure animal health. Live yeast and inactivated yeast optimize the functioning of the rumen and complete **orgacell sc® mb**'s positive effects against mycotoxins.

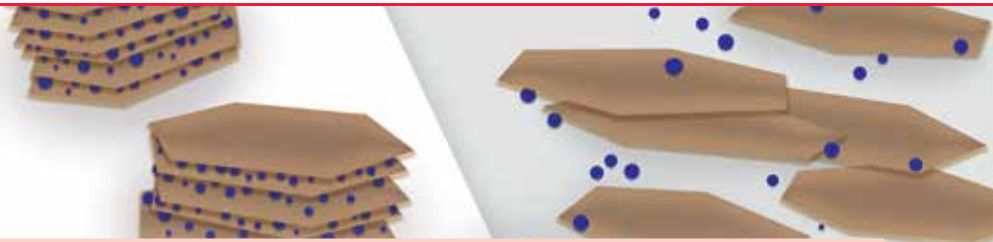
Using phenols has shown that less vitamin E and selenium is wasted as radical scavengers (antioxidants). This prevents vitamin E or selenium deficiencies and ensures that these important substances are at the animal's disposal for growth, fertility and other tasks.

yeast cell walls have binding properties and activate the animals' immune defence.



source: independent laboratory, trials effected according to EURL method





Ingredients and their effects

Bentonite

binds mycotoxins

→ improves animal health, especially udder health (cell count)

ejects toxins

→ protects the organs, especially the intestine

Immediate effects, which is why effects like a reduced cell count are often noticeable after just a few days; if applicable, the content of urea will decrease within 2 - 3 weeks.

Phenol

catches free radicals

→ reduces stress, more vitamin E and selenium are available

relieves and activates the immune system

→ more energy for a high performance, strengthens the body's natural defences, reduces susceptibility to infection, supports udder and overall animal health

Rapid effects on the udder, which is why effects like a reduced cell count may already be observed after just a few days. Evaluation of improved fertility only after more than 3 months.

Inactivated yeast

cell walls

→ binds toxins and pathogens

activates the immune system

→ strengthens the body's natural defences

broad spectrum of aminoacids

→ high quality protein for ruminal microbes

micronutrients

→ B vitamins, biotin, organic micronutrients

Rapid binding of toxins and pathogens, positive effects on ruminal microbes (after approx. 4 weeks). Observe changes in cell count and fur.

Live yeast

binds O₂

→ supports beneficial ruminal bacteria

steady pH

→ improves fibre digestion, increases milk fat content, improves hoof and overall animal health, detoxifies

more propionic acid

→ more energy from the feed

more microbial protein

→ high quality protein for milk production

It takes about 4 weeks for the effects on ruminal microbes and the ruminal environment to take hold. Observe composition of faeces: Less feed residue in the faeces. Observe content of urea. Observe beginning of lactation and stability on changing the feed.

Distributor:

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