



CALSPORIN®

EU-approved heat stable probiotic for sows and suckling piglets



Optimal body condition score at the end of the lactation period positively influences the longevity of the sows and results in feed cost savings in the next gestation. In sows, Calsporin® has proven to reduce weight losses during the lactation period. At the same time, Calsporin® increased litter weight at weaning and improved fertility. The robust spores of *Bacillus subtilis* C-3102 enable the probiotic to survive major feed production processes and make the product compatible with common antimicrobial products, organic acids and gastric juice.

BODY WEIGHT IS KEY TO SOW LONGEVITY

Feed intake of sows during the lactation period is often not sufficient to fulfill in the requirements for the high milk production. The sow will use her own body reserves. High body weight losses during lactation will not only increase the feed consumption required for the recovery of the sow in the next gestation period. High lactation weight loss will also compromise the current milk production, growth of the suckling piglets and have a negative influence on the performance of the sow in the next reproduction cycle and subsequent litter uniformity.

The addition of Calsporin® in sow diets reduces losses of body weight and back fat in the critical lactation period. At the same time, the probiotic positively influences milk production as trials results show larger piglets at weaning with higher litter weaning weights. The weaning-to-oestrus interval reduces, resulting in less non-productive days. The probiotic has shown to have a positive influence on the incidence of Mastitis-Metritis-Agalactia (MMA) syndrome in sows and on the consistency of the faeces.

Reduced lactation BW loss and higher litter weight gain

For a sow to achieve high milk production and maintain body condition during the lactation, optimal gut health and nutrient absorption are essential. Calsporin® contains viable spores of *Bacillus subtilis* C-3102. This unique selected strain has shown to improve gut health in sows and piglets. The probiotic supports feed digestion and creates an environment which is positive for the beneficial gut bacteria (e.g. *Lactobacilli*). The positive shift in the microflora results in reduced amount of opportunistic bacteria such as *Salmonella*, *E.coli* and *Clostridium*.

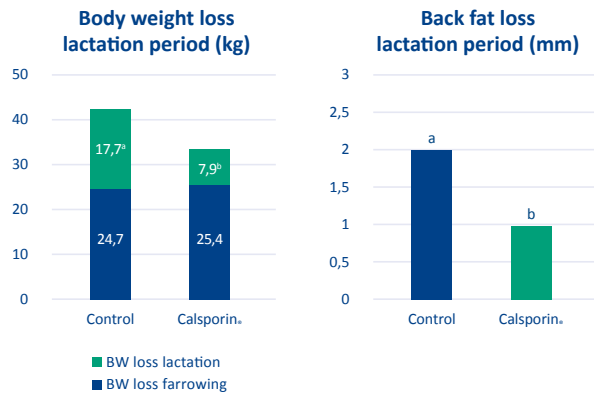
The higher weaning weights and improvement of the piglet faecal score seen by using Calsporin® in sow and creep feed could be explained by an improvement of the microflora from as well the sow as her suckling piglets. These results are in line with the improvements seen in piglets by using Calsporin® in diets after weaning.

ANIMAL TRIALS

Calsporin® supports the high performing sow to maintain body weight and back fat in the critical lactation period. At the same time, Calsporin® supports the milk production and thereby performance of sows and suckling piglets.

Reduced body weight and backfat losses:

- Support longevity of the sows
- Reduce feed cost in the next gestation



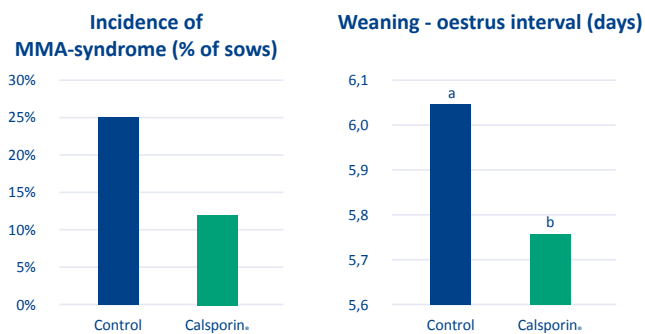
Improved gut health and increased feed efficiency:

- Higher litter weight gain
- Improvement of the piglet faecal score

	CONTROL	CALSPORIN®	
Total born piglets / litter	15.92	16.28	
Piglets after cross fostering	14.08	14.08	
Litter weight at weaning (kg)	91.02 ^a	95.41 ^b	+ 4.39 kg
Piglet weaning weight (kg)	6.65 ^a	6.96 ^b	+ 0.31 kg
Piglet faecal scores	3,46 ^a	3,84 ^b	+ 0,38

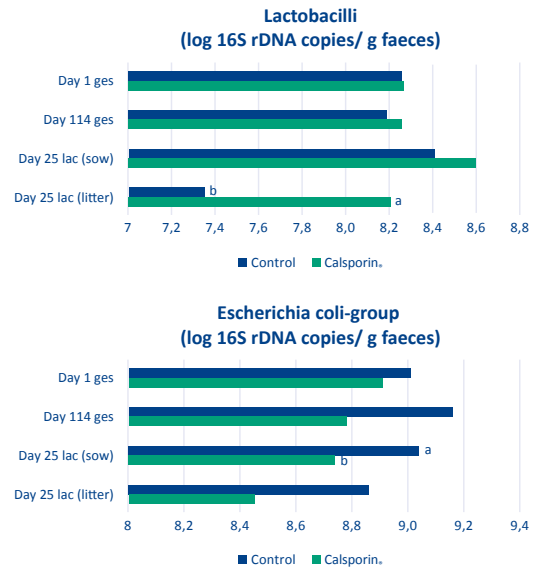
Improved health and fertility status of the sow:

- Lower infection levels of uterus and mammary gland
- Less open days



SUPPORT OPTIMAL MICROFLORA

- *Bacillus subtilis* creates an anaerobic environment to favor the growth of beneficial gut bacteria (e.g. *Lactobacilli* and *Bifidobacteria*) in sows and suckling piglets
- Competitive exclusion and lactic acid production by local gut bacteria limit pathogenic bacteria such as *Salmonella*, *Clostridium* and *E. coli*.



High stability during feed processing and storage

HIGHLY STABLE IN PRACTICAL USE OF ANIMAL FEEDS

- Robust spores of *Bacillus subtilis* resist high temperatures during feed processing, proven to be stable during feed pelleting and can survive expansion
- Stable in stored premix and feed under practical conditions
- Compatible with EU-approved antimicrobials and organic acids

CALSPORIN®

- *Bacillus subtilis* C-3102
- EU authorization at 30 ppm for sows, suckling and weaned piglets < 35 kg
- Stabilizes gut flora
- Robust spores, highly stable during feed processing

