



International Documentation for Lameness among Sows

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Lameness among sows may be and must be regarded as a loss-making disease. Lameness is not a common state for sows, and several international studies indicate losses due to lameness amounting to 50 – 100 Euros per sow. According to professor John Deen, University of Minnesota, loose sows increase the risk of lameness by a factor 25; this will consequently increase the lameness problematic in European pig production due to the fact that all sows as from the year 2013 are to be loose in the gestation period.

5 years of positive experience

Worldwide Vitfoss was the first company to investigate the possibilities of improving hoof conditions via the feed. The first tests with Vit-Omic were initiated as early as in the year 2004. Vit-Omic consists of organic micro minerals (copper, zinc and manganese); these minerals are of a special grade, which provides improved availability. Copper and zinc are strongly implicated in producing a strong hoof, while manganese is essential in terms of bone formation and tendons.

Tests in ten Danish herds establish improved hoof health

We have conducted hoof scoring in ten herds before and after using Vit-Omic. The conclusion in all herds established a significantly improved hoof health, especially in terms of hornification of the heel/sole (the soft area under the hoof). This particular condition is considered the primary cause of lameness among sows.

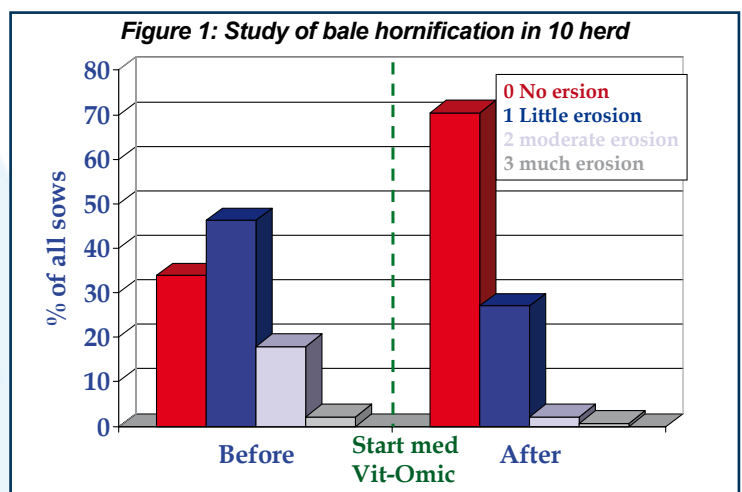
As the figure shows, the frequency of severe hornification drops from app. 20% of the sows to app. 5%.

Swedish studies state improved longevity

In cooperation with FoderMix two studies, which included addition of Vit-Omic to the feed have just been concluded in Sweden. Herds with 1500 sows used Vit-Omic for one year, after which the data were analysed. The conclusion from the two tests was identical.

- 10 % reduction in culling young sows (parity 1 - 3)
- 1½ % reduction in dead sows
- Reduction in the number of sows culled due to hoof problems

Particularly the longevity of the young sows is essential, as experiences show that sows are to give birth to a minimum of two litters, before they produce a positive contribution margin to the holding. Similar Danish calculations show that the culling of one parity 1 sow will result in a loss of more than 200 Euros in contribution margin in proportion to the optimum culling at parity 6.





Effect not significant until after 6 months

Formation of a new hoof takes 4 – 6 months. Consequently the effect of Vit-Omic in the feed will not show until after this time period. A German study conducted by Deutsche Vilomix verifies that the use of Vit-Omic reduced hornification of the heel by 10 percentage points, the effect, however, was not significant until after 6 months.

The Swedish study stated a matching result.

Lameness is very cost-consuming

The below table shows the overall economy in a herd with 500 sows, when focusing on hoofs in relation to a reduced number of dead sows, a reduced number of culled parity 1 sows and improved productivity.

	Value per unit Euro	Improvement percent	Number of sows	Euro in total
Reduced number of dead sows	400	5%	25	10.000
More parity 1 sows have parity 2	225	10%	110	24.750
Reduced productivity	175	20%	100	17.500
Investment in Vit-Omic				- 5.000
Total surplus value				47.250

Vit-Omic makes a documented difference

The dilemma concerning copper and zinc is that EU in the year 2001 due to environmental reasons imposed legislation on the agricultural sector, reducing the added amounts by 40 per cent. At the same time the pig producers are increasing the productivity, and the stable environment (group-housed sows) requires stronger hoofs. It is therefore common sense using an organic mineral grade, which results in increased availability. Vit-Omic provides that.

