

DOES PHENOL RICH FEED INGREDIENTS OR SEA-WEED REDUCE DIARRHEA IN ORGANIC PIGLETS?

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Organic sows and piglets are kept outdoor



Outdoor run for weaned piglets in stable



Indoor area for weaned piglets in stable

Conclusion

Already in the farrowing pen the piglets have to deal with a wide range of infections. It is a challenge to ensure healthy and robust piglets who have the power to be weaned. It is therefore common to use high levels of veterinary Zinc (2500 mg/kg feed) 2 weeks after weaning. From medio 2022 this practice will be banned.

P-phenol did not have a sufficient effect to avoid diarrhea amongst weaned piglets in this pilot test.

Feeding with seaweed show interesting tendencies but need more investigation to give clear results.

The results are similar to a number of tests of other products e.g. probiotica. These results combined proves that it will be difficult – if not impossible – to find an additive that can replace veterinary zinc. Instead the solution is management initiatives, and these might differ from herd to herd. By the end of 2020 we will present a list of effective management initiatives, which we hope will inspire the organic farmers, and encourage them to phase out veterinary zinc.

Testing the effect of P-phenol on diarrhea amongst weaned organic piglets

An on-farm pilot test was set up to test the effect of a P-phenol product which was supposed to have an antibacterial effect. The pilot test ran during 2019 (January - November) and covered 5 groups of piglets.

Test piglets N = 50 - 100 piglets

Control piglets N = 360 – 385 piglets.

Feed	Sows	Suckling piglets	Weaned pigs
Control groups			
Ordinary organic feed	x	x	x
2500 mg zinc two weeks after weaning			Yes
Phenol rich compounds	No	No	No
Test groups			
Ordinary organic feed	x	x	x
2500 mg zinc two weeks after weaning			No
Phenol rich compounds	Yes	Yes	Yes

The diarrhea in the test groups was severe with a mortality up to 10 % compared to 0 % in the control groups. 6-8 days after weaning the pigs in the test groups were given zinc in order to remedy the severe diarrhea.

Mapping the infection pressure

Diarrhea can be caused by:

- E Coli F4 and F18
- Different lung diseases
- Streptococcus suis
- Haemophilus para suis
- B. bronchiseptica
- Clostridium perfringens
- Influenza
- Coli (other than F4 and F18)
- Salmonella
- PRRS
- Coccidia
- Intestinal worms.

Some of the diseases do not directly trigger diarrhea, but they can play an important role for the general level of health and the efficiency of the immune system.

Testing the effect of seaweed on diarrhea amongst weaned organic piglets

5 groups, 18 weaned piglets in each group.

- Control without zinc or seaweed
- Control with zinc and without seaweed
- Test with Saccharina latissimi - without zinc
- Test with Ulva lactuca - without zinc
- Test with Ascophyllum nodosum - without zinc

(Marleen Elise van der Heide, Aarhus University, Denmark)

The current results do not show a consistent effect on gut health after feeding seaweed meal or medical grade zinc-oxide. Upcoming results on short chain fatty acids in intestinal digesta may elucidate changes in fermentation profile from feeding the seaweeds.

Results are preliminary (May 2020) and calculations are ongoing, therefore results may be altered slightly.

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