

Pig production without diarrhoea

By Søren Kristoffersen, agronomist

Pig production without diarrhoea problems seems to be an illusion, and especially at a moment when the antibiotic growth promoters are on their way of becoming eliminated from the pig production.

- But in general, at Dallerup Svineproduktion A/S, our pig production is free from diarrhoea, says Hans Christian Hovmøller, who together with Kirsten Hovmøller and three assistants takes care of 700 sows and cultivates 200 hectares (abt. 500 acres) of continuous wheat.

10.000 porkers are produced annually. The remaining 8.500 piglets are sold to a regular customer. As it appears from the production figures, we are here talking about a production in the first division. The porkers have a daily gain of 938 g at a feed consumption of 2,58 FE (Scandinavian feed units, corresponding to metabolic energy). 25 piglets are sold per year sow. The piglets have a daily gain of 430 g at a feed consumption of 101 FE until they weigh 30 kg including feed for young pigs. The latest production figures show that 6 sucking pigs died due to diarrhoea in the farrowing unit out of a production of 2.200. It is app. 3 per thousand. A walk through the farrowing unit shows that there is no trace of any piglets affected by diarrhoea. The piglets are well-fed and in good condition and enjoy their lives under the heating lamp or at the teats of the sow.

We defy thinking in grooves...

In order to be able to survive as a pig producer, one has to try all the time to be among the best, says Hans Christian. This means that you must settle with the dogmas of the profession and have the courage to thing along other lines. Against all odds, we have phased out the growth promoters years ago, and we do not use copper and zinc in the production any longer because it disturbs the balance in the intestine of the piglet and in the biological system. We only use insignificant quantities of medicines, because we try to solve the problem before it is necessary to use medicine. We are thinking in biological entities all the time.

It is a well-known fact that the size of the problems constitutes the sum of misery. We try to think the other way round, that is to say the sum of positive efforts are decisive for the size of the positive result, explains Hans Christian Hovmøller.

- This does not mean that we are just experimenting at random. When we start using a new product, we want to see documented results. However, the producer must substantiate by way of own trials or other types of trials that the product has an effect. We also evaluate whether the biological theory behind a new product fits into the experience we have made. We have our own small research section. Here, we test the new products before it becomes a permanent part of the production. We want to establish ourselves what is right or wrong for our production. This does not mean that we will not listen to others, on the contrary, we think it is important to gather as much knowledge as possible, says Hans Christian Hovmøller during the passage through the stables.

Here are no weak points...

At Dallerupgård, no pigs are let in from outside. The breeding material is brought in by way of seamen from Hatting KS. Consequently, there is no PRRS in the herd. At the time, when Hatting inoculated against PRRS, we did not receive any seamen, tells Hans Christian. – We had no doubts that PRRS is also transferred by way of boar seamen. PRRS is a big threat against the immunity of the herd, and we do not take any chances. The production is based exclusively on the own breeders of Dallerupgård, consisting of Duroc, Landrace, Hampshire and Yorkshie.

We take samples of all our feedstuffs and send it to Stains Laboratorium A/S for analysing. By doing so, we always know the quality of the feed, and this means that the feedstuffs suppliers always make sure that the feedstuff live up to the quality we demand, tells Hans Christian. Dallerupgård formulates the composition of its own feedstuffs, which in general contain more protein and phosphorus than traditional mixes. An optimal feeding is the basis of a strong production system, and we make money by making demands on the feedstuffs suppliers. By using the best feeds, the piglets do not need to eat so much in order to grow optimally.

Real sucking pigs do not become affected by diarrhoea...

Dallerupgård applies a litter equalization system, which assures that gilts and second parity sows have a milk production that exceeds 3 weeks. This is a system, which makes sure that the piglets receive plenty of milk and that the hormone system of the dam does not become overloaded through a too early weaning. Oral iron is administered to the piglets in the farrowing unit on the very first day of their lives. At first, in the form of liquid iron, dissolved in water. When the piglets are 2-3 days old, FiberJern is administered to them at the floor of the farrowing unit, until they are 10-12 days old. Subsequently, FiberStart, mixed with a powder consisting of lactic acid bacteria, is administered to the piglets. The piglets receive this mixture until weaning. After weaning, the piglets are moved to the air-conditioned units where they are given the special feed mixture of Dallerupgård. The mixture contains approx. 5 % FiberStart during the first few days. This formulation prevents diarrhoea problems from occurring, Hans Christian believes.

We always try to strengthen the own immune system of the piglet, and do it among other things by developing the intestine of the piglet and improving the microflora in the intestine. By boosting the development of the intestinal system, we can make sure that the piglets avoid becoming affected by diarrhoea. By preventing diarrhoea from occurring, we can also reduce the production of the pathogene bacteria, which create the diarrhoea situation in the units. The secret, in fact, is to break the vicious circle. If once in its life, the piglet has been affected by diarrhoea, it has suffered a drawback which cannot be remedied. The piglet will never grow as well as the piglet which had not been suffering from diarrhoea.

Prevents against diarrhoea...

Hans Christian Hovmøller's attention was drawn to the new product concept for piglets from BioFiber a year ago. With FiberJern and FiberStart, Dallerupgård, finally, has overcome the weak point of the production chain, i.e. the period around the weaning.

The new FiberSystem 1-2-3 has several advantages, explains Gunner Jacobsen, managing director of BioFiber.

FiberSystem 1-2-3 consists of three products: FiberJern, FiberStart and FiberKur. As the name indicates, all three products contain various fibres that assure optimal living conditions for the

microflora of the intestinal system, which are of vital importance for the development of the intestinal system and the health condition of the piglet, in general.

When you come to think of it, it is not so difficult to understand if only you think about the fact that weaning at 3 weeks of age is contrary to the nature of the piglets. This is why an equivalent traditional feeding is also unnatural to the piglet. We could for example try to start our children on gravy and potatoes claiming that they just need a little “enzymatic training” in order to get started. Some people would be shaking their heads, I suppose.... and please bear in mind that the piglets pay back at least the good effort – even at very low accounting prices – as we observe with Hans Christian Hovmøller.

Early action...

The preventive treatment starts with the administration of FiberJern, which covers the iron requirement of the piglets completely.

It is a well-known fact that during this period, the piglets absorb very little solid feed, and that is why FiberJern has been developed to cover the iron requirement of the piglets through a daily intake of approx. 2 g of the product. Therefore, no injections. The problem is to make the piglets eat. That is why the fibres, just as the iron compounds, are encapsulated by way of quite a special patented process in a mixture of fat and protein, which tastes pleasantly. In this way, the piglets quickly get used to eat the fibre product that has been developed with a view to reaching a high degree of effectiveness.

After 10 days, you start to give the piglets FiberStart. The purpose is to stabilize the physiological digestion, assure an excellent growth and maintain the good state of health which was established by the use of FiberJern.

During this period, the enzyme systems of the piglets are not developed to be able to absorb other feedstuffs than the milk of the dam. In order to achieve a growth beyond the one, which is depending on the quantity of milk that is available, it therefore, is a prerequisite that the three principle nutrients – carbohydrates, proteins and fat – are easily digestible and specially adapted with a view to the young intestinal system of the piglets. This trick cannot be done through the feed, however, only by way of these few hundred grams of dietetic mixture.

These products must cover the need of the piglet for iron, increase the growth during the suckling period, fortify the intestinal system and secure a good long-term effect and a consequently lower mortality.

If one is very unlucky and diarrhoea problems occur, in spite of all, FiberKur can be administered to the weaned piglets. The product is a mixture of salts and natural substances, which have been selected with a view to restoring the balance of liquids in the intestine as well as to replace and fortify the existing mucus on the intestinal mucosa. The reestablished mucus can absorb lactose, which accelerates the growth of the desirable lactic acid bacteria. Moreover, the mucus will protect the microvilli of the intestine and facilitate the healing of the wounds, which have appeared as a consequence of the diarrhoea condition.