

HOG-UPDATE

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A native of Aaberna, Denmark, Jens-Erik graduated from the Royal Danish Veterinary and Agricultural University of Denmark in Copenhagen. After years as an advisor for a consulting company for Pig farmers and a technical product manager at ORFFA, he continued his education and is now employed as a Global Technical Support Manager for swine at Chr. Hansen Animal Health and Nutrition. Jens will be speaking on optimal nutrition for the sow at BSC in the meeting room on February 13 at 7:00 pm. Please contact the office or your sales rep for more information.

Capturing the Full Potential of the Farrowing Unit

The genetic potential of a sow that is the ability to farrow an increased numbers of piglets has increased over the last 10 years. Unfortunately the number of *weaned* pigs per sow has not increased as significantly as the number produced. Starvation, diarrhea and decreased birth rates are often the cause of prewean mortality. The sow's potential to produce enough quality milk is the limiting factor to weaning more and healthier pigs. The need for energy and protein to cover the nutrient demand for milk production can be covered largely by a better digestibility of the feed. Probiotics can be used to increase the feed

efficiency and nutrient status of the sow due to the increased enzymatic activity in the digestive tract. This in return leads to a reduced mobilization of body fat and protein stores for milk production. Furthermore, the nutritional value of the sow milk is improved as related to protein, fat and lactose. This should increase the survivability and weaning weights of the litter.

Danish Experiences

A Danish study of 4 commercial sow units including 4023 sows used probiotics to see the overall effect. The sows were split into 2 groups, a control group without the probiotic added and a treated group that were fed the probiotic. The treated sows had a reduction of preweaning mortality by 1.6%. This translated into 0.28 more pigs weaned per sow per year. The return to estrous frequency was also improved by 1.3%.

Table 2. Danish Trial Results

	Control	Probiotic	Difference
Weaned pigs per sow per year			
Herd 1	23,1	23,8	+0,7
Herd 2	27,6	28,0	+0,4
Herd 3	30	29,6	-0,4
Herd 4	27,8	28,0	+0,4
Average			+0,28
Mortality until weaning %			
Herd 1	15,4	13,5	-1,9
Herd 2	14,7	9,2	-5,5
Herd 3	10,3	10,1	-0,2
Herd 4	13,3	14,4	+1,1
Average			-1,6
Return-to-oestrus-frequency, %			
Herd 1	6,8	4,3	-2,5
Herd 2	4,2	2,5	-1,7
Herd 3	2,2	1,9	-0,3
Herd 4	3	2,2	-0,8
Average			-1,3

Improved Reproduction

As mentioned before, probiotics increase the enzymatic activity in the digestive tract of the sow. The increased digestibility of the feed will result in a lower weight loss of the sow during lactation. A Dutch study showed that litter size decreased by 1.28 piglets after a first lactation weight loss. The same study also showed that as

weight loss is reduced, there is a reduction in the risk of open days by 61%.

Economic Impact

Economic net results are improved with the improved nutrient supply to the sow. An increased weaned pig per sow per litter has its obvious increased effect on profitability. The improved quality and nutritional quality of the milk will not only yield more weaned pigs, but heavier and healthier pigs too.

The reduced NIP days as a result of improved breeding must also be considered as an economic advantage. Improved feed utilization will decrease the need for more feed (which can be limited by gut capacity) and decrease the loss of conditioning in the sow. Feeding a sow back to condition can be costly.

Conclusion

The reproductive genetics of the sow has improved over the last 10 years to allow her to farrow more pigs per litter. The use of probiotics and other digestive aids will become increasingly important to allow that potential to be fully realized in the weaner rooms. Improved breeding, milk production and weaning weights will help maximize the profitability of your operation.

PS. As the ambient temperature of the barn decreases by 5 degrees Celsius, the feed requirements of a sow will increase by approximately 1 pound.

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