



SUPPLEMENTARY MILK DURING LACTATION IMPROVES PIGLET SURVIVAL

Lisbeth Brogaard Petersen

Danish Pig Research Centre, SEGES P/S, Copenhagen

Background

The survival rate of live born piglets in Denmark is 86.3%. An increase in survival rate is of great relevance to both welfare and economy. Access to supplementary milk can improve equal energy intake among litter mates and is expected to reduce not only mortality, but also the need for nurse sows and redistribution of piglets.

An economic model calculation showed that a 2 percentage point reduction in piglet mortality in litters standardized to 14 piglets is needed in order to obtain the same production economy with supplementary milk, as in litters with 13 piglets and no supplementary milk. Alternatively, a substantially better use of the barn capacity is required to achieve break-even when using supplementary milk.

Objective

The objective of the study was to investigate whether free access to supplementary milk reduced piglet mortality in litters standardized to 14 piglets.

Materials and Methods

The study was performed in a production herd with 1000 sows (crossbred Landrace x Yorkshire). The farrowing pens had partly slatted floor and a covered creep area. The creep area had floor heating and heat lamps (Veng-system). The sows were fed with wet feed.

19 control litters and 21 litters offered continued access to supplementary milk (“+milk”) were standardized to 14 piglets within the first app. 12 hours after birth. Piglets lighter than 800 g were excluded.

The group “+milk” had free access to milk cups and milk substitute from the company Provimi. Cups and milk substitute were bought from and installed by the company 3S in collaboration with Provimi. The cups were placed on the slatted floor close to the solid floor outside the covered creep area.

“Rescue Milk” was used from day 1-14, and “Smooth” was used from day 14-weaning at day 25. Milk powder was mixed according to the recommendations from the company 3S: 150 g Rescue milk powder per liter water, and 250 g Smooth milk powder per liter water. Water temperature was 50-60°C. From app. day 10 the farm manager also provided creep feed in both groups.

In order to avoid effect of batch, the app. 20 litters per group were equally distributed between four weekly batches.

Results

The study was a preliminary study and the data were reported as averages. Similar results were achieved in all four consecutive weeks of farrowings, indicating that the result was valid. The results showed that piglet survival in the “+milk” groups increased from 90 to 95% from the time of standardization of litter size to weaning. Furthermore, the percentage of removed, runt piglets dropped from 4 to 2%. On average, 13 piglets were weaned per litter in the “+milk” group versus 12 piglets in the control group.

Lower mortality rates were obtained in all weight categories: “small piglets” (=800-1100 g), “medium size piglets” (=1100-1400 g) and “large piglets” (> 1400 g). The weights refer to the time of litter standardization.

The average consumption of Rescue Milk milk powder was 157 g per weaned piglet. The consumption of Smooth was 300 g per weaned piglet.

TABLE 1. AVERAGE MORTALITY, REMOVAL RATE AND WEIGHT IN LITTERS WITH EITHER “NO SUPPLEMENTARY MILK” OR “+ MILK”. LITTERS WERE STANDARDIZED TO 14 PIGLETS WITHIN APP. 12 H AFTER BIRTH.

	No suppl. milk	+ milk
Litters, no.	19	21
Piglets per litter, no.	14	14
Weight at standardization, kg/piglet	1.5	1.4
Mortality from standardization, %	10	5
Piglets removed from standardization, %	4	2
Weaned piglets per litter, no.	12	13
Weaning age, days	25	25
Weaning weight per piglet, kg	7.1	6.8

Conclusion

In conclusion, this preliminary study resulted in one additional weaned piglet in litters with free access to supplementary milk. Access to supplementary milk may be part of the solution in the pursuit of higher piglet survival rates and increased welfare on-farm.

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CONTACT
Lisbeth Brogaard Petersen
Danish Pig Research Centre
T +45 3339 4944
M +45 4063 4790
lbp@seges.dk

