



The Common Practice of Split Suckling

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TAKE HOME MESSAGE:

Colostrum availability to light birth weight piglets provides the greatest chance of survival.

Why do farms split suckle?

Genetic improvement has resulted in increased litter sizes, but also lower birth weights which has led to reduced survivability. Piglets are born with little fat reserves, and therefore they must reach the mother's teats in a timely manner to gain colostrum. Colostrum is filled with energy for the piglets and also immunoglobulins for disease protection. Access to colostrum within the first few hours after birth is important and can determine life or death for the smaller piglets. Split suckling is a management tool that allows piglets to take turns at the sow's teats to attempt to provide an environment where each piglet has the opportunity to consume colostrum to help improve their chance of survival. The purpose of this factsheet is to review some of the studies conducted on split suckling methods.

What is split suckling?

The goal of split suckling is to reduce the competition for colostrum immediately after farrowing to increase colostrum consumption for every piglet. In sows, colostrum is only available to the piglets for about 24 hours after the birth of the first piglet, and then the milk transitions into whole milk with a lower immunoglobulin concentration. Therefore, split suckling should be done within the first 24 hours post farrowing. Most split suckling procedures include removing a subset of piglets for 1-2 hours so piglets have reduced competition at the udder to allow more piglets access to colostrum. Research studies have conducted split suckling either based on birth weight or birth order. Birth weight

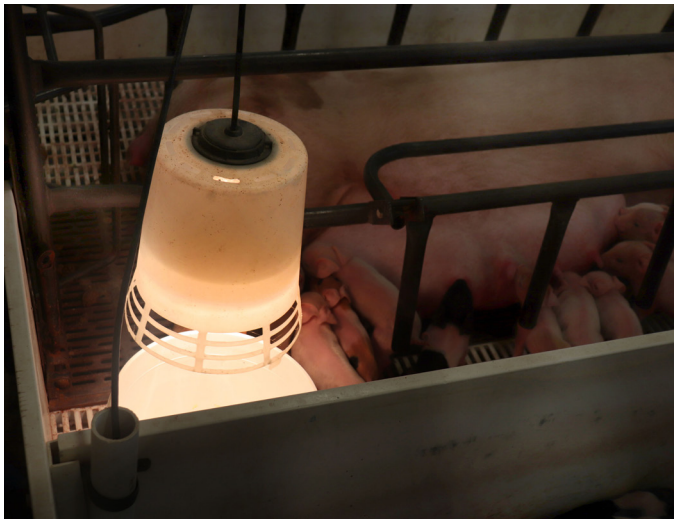
based split suckling is when you remove the heaviest half of the litter to a hot box and allow the smaller piglets easier access to the teats. With birth order based split suckling the first half of the piglets born (~6), who have had the most time exposed to the teats, are removed to a hot box so the second half of the litter can have access to the teats to get colostrum. Data is unclear how frequently the split suckling should be performed and for how many consecutive days, however, for increased colostrum consumption, split suckling within the first 24 hours is most beneficial.



Proper Removal Methods

Removal of the piglets from the sow's teats can be done in different ways based on what is best for management practices. However, keeping the piglets basic needs in mind is still highly important. First, all piglets being removed should have an opportunity to consume colostrum before being removed. Also, making sure that each piglet is dried before removal helps them expel less energy towards trying to stay warm while removed from the sow. Providing a supplemental heat source to the piglets once

removed from the sow is necessary no matter what type of removal method you use. Typical management is to place removed piglets into a plastic bucket/tote outside the back of the crate with a heat lamp covering the bucket/tote. Another option is to place them into an empty crate nearby. Lastly, you can put up a divider in the front or back of the crate to keep them separated from the other piglets that are having their time at suckling. All methods of removal must keep in mind the basic needs of piglets to prevent added risks of death.



Split Suckling Research

Typically, without split suckling, heavier pigs will consume more colostrum than the low birth weight pigs. In comparison, the first-born pigs will consume more high-quality colostrum (rich in immunoglobulins) than the second half of the litter. Light birth weight piglets have a smaller capacity to consume colostrum and reducing competition does not fix this issue. Therefore, reducing competition does not guarantee a piglet will be able to consume enough colostrum for survival. In birth order split suckling, colostrum intake is increased in the second half of the litter because they were given an equal chance at the teats compared to the first half of the litter born. Split suckling increased the immunoglobulin intake in the second half of the litter compared to non-split suckled piglets. Multiple day split suckling can be used to increase the growth in light weight piglets;

however, this can be detrimental to the larger weight piglet's growth. Overall split suckling litters within 24-hours or less does not have any impact on growth performance, regardless of the method.

Table 1. Split Suckling methods timing/frequency and growth effects on piglets

Study	Birth Order	Body Weight	N (Piglets)	Timing/Frequency	Growth
Donovan and Dritz, 2000	X		1193	2 hrs in 1 st 24 hrs	No difference in weight or ADG
Morton et al., 2019	X	X	410	1.5 hrs 6 hrs after farrowing	No significance
Vandaele et al., 2020		X	469	4x in 12 hrs after farrowing for 1-3 days	3 days had lower growth for only heavy piglets

Another study focused on split suckling between parities. Piglets were split suckled based off of body weight for two hours. Comparing gilts to sows, there was a difference in total mortalities of piglets and total mortalities of light birth weight piglets within the total piglet mortalities. Sows had a greater total piglet mortality rate at 11.6% compared to gilts at 5.4%. Additionally, sows had a greater mortality rate of light birth weight piglets at 20.7% compared to 12.8% within gilts. Split suckling survivability of piglets, especially light birth weight piglets, can be affected by the parity of the sow but other environmental factors must be considered.

Conclusion

In conclusion, colostrum intake is highly important for pig survivability preweaning and competition for colostrum has grown with the increased litter sizes. Split suckling is a management tool that caretakers can use to help reduce the competition for colostrum, allowing all piglets the opportunity for consumption. The use of split suckling can increase prewean livability as long as the basic needs of the piglets are met.

REVIEWER

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This project was supported by the National Pork Board and the Foundation for Food and Agriculture Research grant #18-147.

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