

Season 5, Episode 11: New Split Suckling Research Reveals Surprises

Dr. Ashley Hartman, Research Coordinator, Pillen Family Farms and DNA Swine Genetics and **Mikayla Spinler**, Graduate Student, Kansas State University, discuss their collaborative study evaluating the effectiveness of split suckling, a common practice used on many swine operations.

Background

Day-one pig care is a critical foundation for piglet success. One widely used practice is split suckling, which involves temporarily removing some piglets from the sow shortly after birth to give others better access to colostrum. The goal is to improve colostrum intake and early survivability, especially for smaller or later-born piglets. Despite its common use, peer-reviewed literature on split suckling is limited and offers mixed results. Most studies have focused on strategies based on birth order or birth weight, but no clear best practice has been established.

Study Design and Research Approach

To better understand the real-world impact of split suckling, the research team conducted a large-scale commercial trial involving over 1,500 sows and 22,000 piglets. Piglets were assigned to one of three treatment groups: no split suckling (control), split suckling based on birth order, or split suckling based on birth weight. In the birth order treatment, the first eight piglets born were removed for 45 minutes and then returned to the sow while the later-born piglets were removed for an additional 45 minutes. In the birth weight treatment, the eight heaviest piglets were removed for 90 minutes and then returned, without rotating piglets. These treatment durations were selected based on previous published studies to reflect commonly used on-farm methods. Individual piglet weights, pre-weaning mortality, and colostrum intake (measured using immunocrit levels) were recorded to assess treatment effects.

What makes this trial unique compared to previous studies is that all 22,000 piglets were individually tracked from birth through nursery and finishing phases, allowing for comprehensive evaluation of both early and lifetime performance outcomes.

Key Findings from the Trial

Surprisingly, the results showed no significant differences in pre-weaning mortality, growth performance, or colostrum intake across any of the treatment groups. Even when data was broken down by variables such as litter size, parity, birth weight, or teat availability, the analysis consistently found no measurable benefit from split suckling. Although a small, short-term reduction in piglet mortality was observed within 24 hours for large litters, the effect did not persist through weaning.

These findings challenge long-standing assumptions about the efficacy of split suckling and highlight the importance of reevaluating labor-intensive practices. For Pillen Family Farms and DNA Genetics, the results led to a shift in priorities, redirecting labor and time toward more impactful day-one interventions, such as drying piglets, assisting sows, and ensuring early nursing support. The study also demonstrated the value of university-industry collaboration in generating meaningful, data-driven insights that can be quickly applied on-farm.

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