Title: Effect of trimming long toes of sows on longevity, productivity, and economic return

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Introduction

Trimming long toes has become a topic of interest for improving sow retention and herd productivity. However, there is limited scientific evidence that trimming long toes in commercial sow farms results in improved productivity and therefore is economically justified. Therefore, the objective was to evaluate the effects of trimming long toes, overgrown heels and long dewclaws on sows and the impact this has on longevity and productivity to determine economic return.

Materials and Methods

Previous published literature suggests that average toe length for sows is 55 mm from coronary band to tip of toe. Therefore, seven hundred and sixty parity 2 and 3 sows with toes longer than 60 mm at mid-gestation either had toes trimmed or left untrimmed. Toes were evaluated for toe length, long and cracked dew claws, heel erosion or overgrowth, and heel and wall cracks. Time to trim toes was measured. All sows had the opportunity to have 3 farrowing events and standard litter traits were recorded for each farrowing event as well as total productivity. If a sow was removed from the herd due to being culled, mortality, or euthanized, the date and reason was recorded. Data were analyzed using Proc GLM in SPSS and Proc GLIMMIX in SAS with the first farrowing litter data as a covariate. Sow was the experimental unit.

Results

Parity 2 and 3 sows that were determined to have toes longer than 60 mm had rear toe lengths averaging 78 mm, while 97% of those sows had issues with dew claws and 83% of those sows had heal sole cracks. Trimming toes takes as long as 31 minutes or as quick as 3 minutes, with an average of 8 minutes per sow. Trimming long toes increased the average number born alive ($P < 0.05$) of sows that farrowed for the third farrowing by 0.6 piglets than sows with long toes that were left untrimmed. However, trimming long toes did not improve ($P > 0.10$) any litter traits for the 2nd farrowing or sow removal compared with sows that were left untrimmed. Six percent of sows in the herd had toes longer than 60 mm.

Conclusion

Trimming long toes of parity 2 and 3 sows resulted in 0.6 more pigs born alive during the third farrowing event after trimming, but no improvement in sow retention or total sow productivity occurred. The return over expense (ROE) for trimming the 6% of sows with long toes was calculated with capital and labor cost for year one and labor cost for year 2 divided by the value of increased pigs born alive which occurred in year 2. First year ROE is 0:1 and year two ROE is 2:1. Due to a low ROE for trimming toes that were longer than 60 mm of parity 2 and 3 sows, it is suggested to focus on prevention of long toe growth.