

Improving sow udder health at weaning through complementary feed based on plant extracts

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Objective:

Dry-off is a very critical time for sows as it occurs almost at their peak of lactation. Moreover, milk production continues to rise in the context of hyper-prolificacy. Our study objective was to evaluate the effect of an oral gel (including echinacea, parsley, sage and vitamin B6) on post-weaning udder status and reproductive performances.

Material and methods:

102 sows were split into control and test groups:
 - **Test group**, 15 ml of the gel was added on top of sow last meal before weaning.
 - **Control group**, nothing was added.

Measurement:

- **Udder Engorgement (UE)**: scoring from zero (flabby and flat) to three (swollen and hard).
 - **Udder Skin Temperature (UST)**: monitored via an infrared thermometer.
 - **Milk Leakage (ML) rank**: from zero (no milk drops) to three (continuous leaking).
 - **Weaning-to-Estrus Interval (WEI)**: assessed with the heat standing behavior test.

Results

• Lower UE score in the test group.

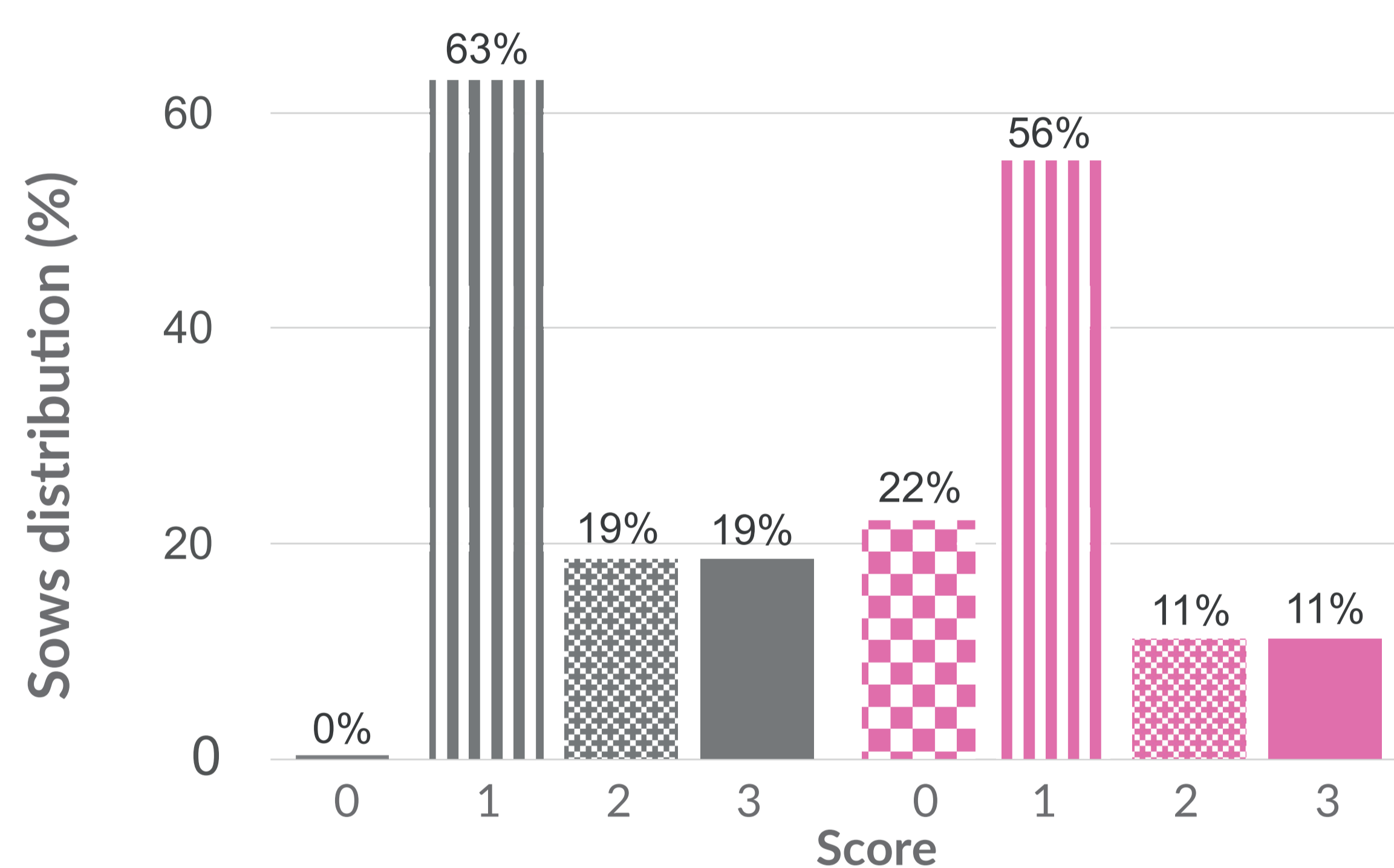


Fig. 1 UE score distribution after weaning (p <0.05, Fischer test)

• Faster UST decrease in the test group.

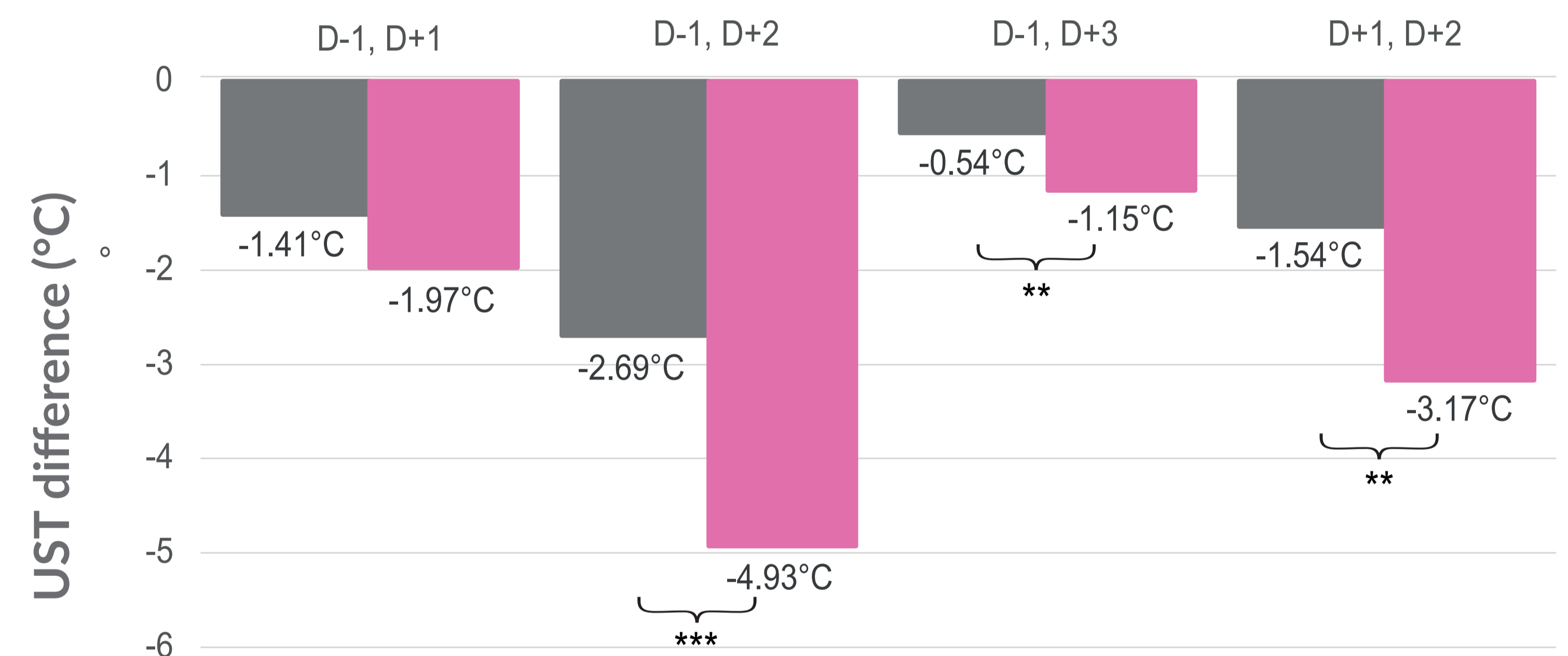


Fig. 2 Udder skin temperature difference from dry-off to 3 days after (**p <0.05; ***p <0.005, Wilcoxon test)

• Smaller sows proportion with ML the day following weaning in the test group.

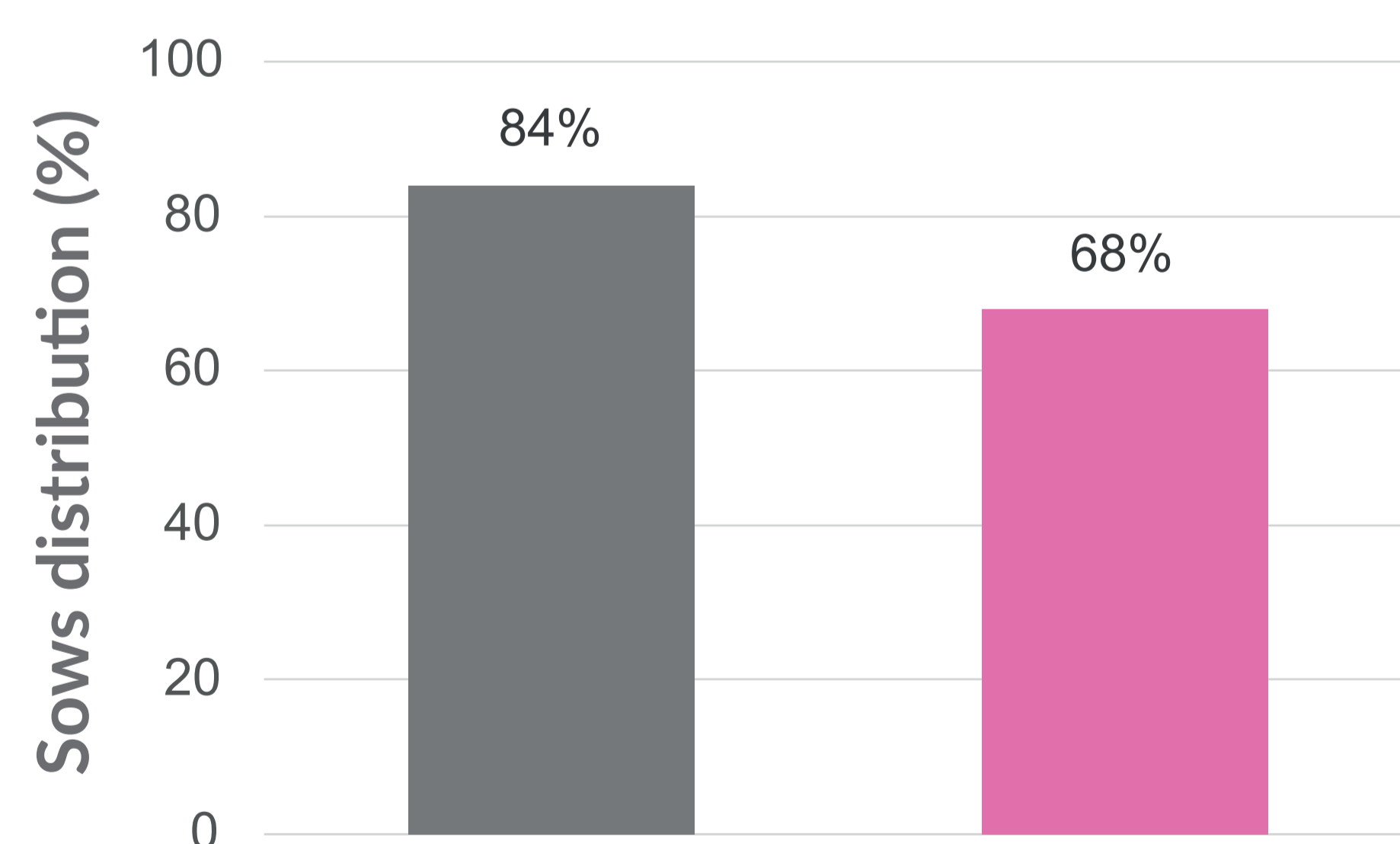


Fig. 3 Percentage of sows presenting milk leakage the day following weaning (% , p<0.1, Fischer test)

• Shorter WEI in the test group (0.18 days shorter). Proportion of sows with a WEI longer than four days tends to be higher in the control group.

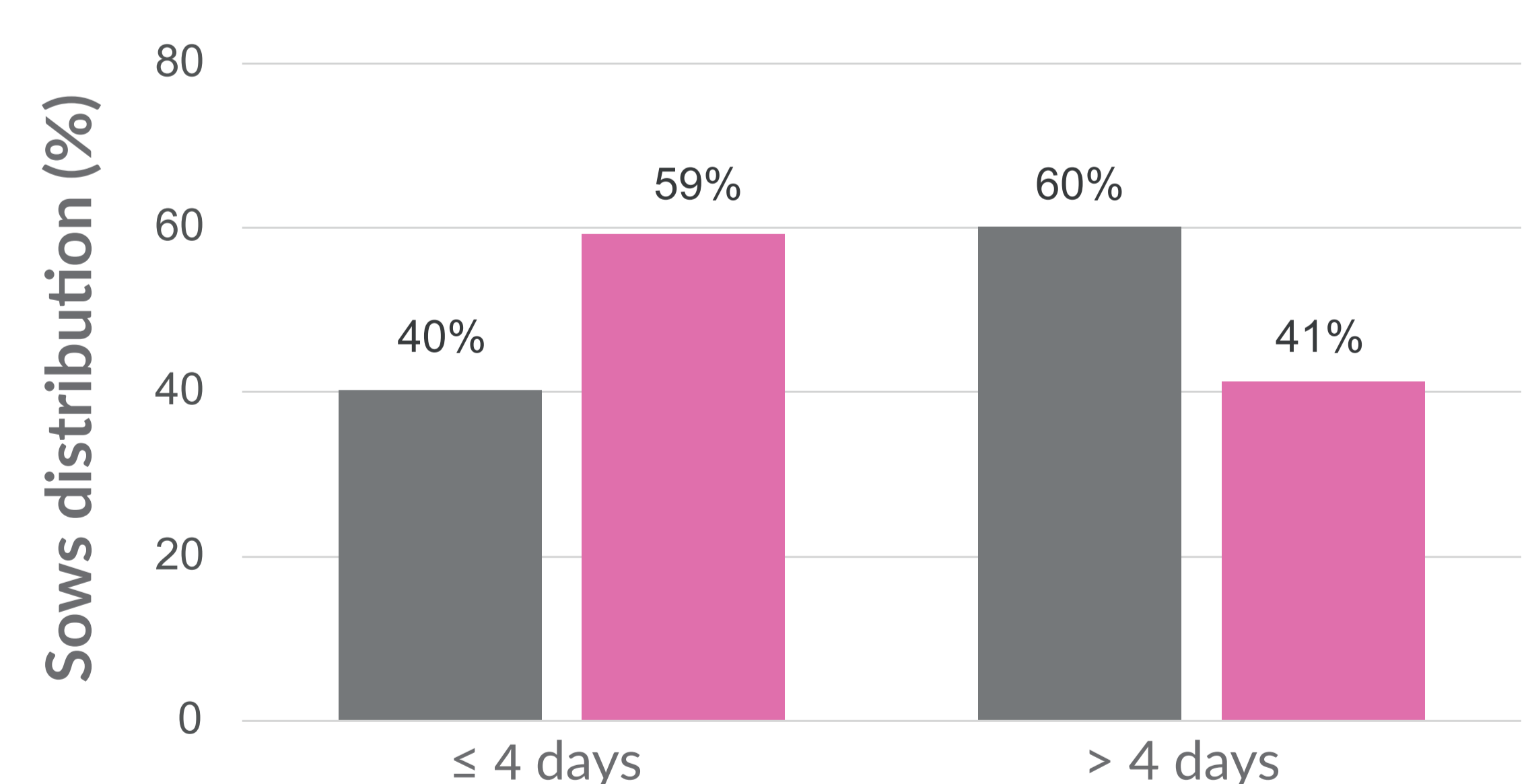


Fig. 4 WEI sow distribution (% , p=0.1, Fischer test)

Conclusion

Our results showed that this nutraceutical gel reduces the udder temperature and engorgement, suggesting less damages on udder. These may ease udder involution preserving udder health and performance, observed via the higher number of weaned piglets per litter (+0.14) on the following lactation.

