

# Aggression in piglets - ways of solution by environment modification

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## Introduction

The combination of different litters induces the social stress, increasing of aggression and next higher number of injuries or cannibalism. There are strong odors, pheromones, tranquillizers, light intensity changes, dividing the pen by diagonal wall with junctions but without meaning success. Number of attacks and injuries are reduced by holes, where piglets can hide head. The intensity and duration of attack is affected by age too, the fights are shorter and number of skin lesion is lower in younger piglets.

## Objectives

**Decrease of piglets fights after shifting to the new pen and litter mingling by environment modification.**

## Examples of environment modification used in tests



wooden barrier & gap stuffed with straw



PET bottle



plastic tube with diameter 31,5 cm

## Material and methods

We have observed the behavior and recorded the number of attacks in 5 different housing conditions: the pen with concrete floor covered by straw (CFS), same pen divided by temporary the barrier during litters shifting and with gap stuffed with straw. The gap was step by step opened by the piglets during environment exploration and mingling was spontaneous (BAR). Third pen was with splattered floor (SLAT), same pen equipped with the tube with diameter 31,5 cm (TUBE). Tube was fixed to the floor and was intend as a shelter during attack. The last environment was the pen with the PET bottle as toy for manipulation (PET). We have evaluated the number of the attacks during 8 hour after shifting to the new environment (TSA), average number of attacks per 20 minutes intervals (X20) and number of attacks during 1st hour after shifting and mingling (S1H). Difference among attacks number under different environments was compared by Kruskal-Wallis test.

## Results

The highest number of attacks in all evaluated traits was recorded in PET pen (TSA = 33, X20 = 1.38 and S1H = 9.67). The smallest number of attacks in all evaluated traits was recorded in BAR pen (TSA = 7.01, X20 = 0.29 and S1H = 1.54). The significant difference was found only in X20 trait.

## Conclusion

The BAR modification had the considerable effect to the behavior. The piglet explored the new environment in group of sibs. During exploration decrease the excitation from new environment, so in moment of opening are piglets calmer. They can join the group of unfamiliar piglets when they "desire". The next advantage of partitioning is possibility of escape to other side of barrier after attack. In our opinion the PET enrichment trigger the highest number of attacks because the competition for movable toy.

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