# STABLE VERSUS DYNAMIC GROUP HOUSING SYSTEMS FOR PREGNANT SOWS AND THE MOMENT OF INTRODUCTION

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Aggression between sows during early pregnancy may affect sow welfare and reproductive performance. However, in some group housing systems aggression from changes in group composition during this critical period is unavoidable. To assess the effect of the moment of introduction of new sows into a dynamic group, and the difference between dynamic groups and stable groups, a split-plot study was set up, with service groups as replicates. The main treatments were dynamic (D) versus stable (S) groups. Sub-treatment was the moment of introduction. Within the dynamic groups new sows were introduced one day (D1),15 days (D15) or 29 days (D29) after insemination. Stable groups were formed after weaning. Sow performance, reproduction results, and feeding patterns were analysed.

Two dynamic groups were created;52 pregnant sows on average, four new sows entered each group weekly. The stable groups consisted of service groups of 13 sows.

Sows were fed with electronic feeders without protection, 13 animals per feeder. Housing was on concrete flooring, 2.6m$^2$ per animal, 40% slatted floor.

We studied 16 replicates (498 litters total). Average skin lesions, scored every fortnight, were 5.0$^a$,6.8$^b$,7.4$^c$ and 7.5$^c$ (scale: 0=no lesions, 15=maximum lesions) for S,D1,D15 and D29, respectively ($P$<0.05; different superscripts indicate significant difference). Claw conditions, scored before farrowing, were 6.0$^a$,6.5$^b$,6.6$^b$, and 6.3$^b$ (scale: 0=good condition 9= poor condition) for S,D1,D15 and D29, respectively. Main treatment influenced feeding pattern. Sows in dynamic groups had to eat their individual ratio in smaller portions due to disturbances at the feeders. Despite these differences we found no effects of the treatments on pregnancy rates, litter size or litter weight.

Although sows in stable groups faced less aggression during pregnancy, an effect on reproductive performance could not be demonstrated. Contrary to general advice this study shows that the moment of introduction does not influence the reproduction results.