

GENETIC ASPECTS OF INDIVIDUAL FOOD INTAKE OF GROWING PIGS, HOUSED INDIVIDUALLY OR IN GROUPS

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An automatic device for monitoring of individual food intake in group-housed pigs has been developed: the IVOG-station. The IVOG-station makes it possible to use group housing for performance testing of boars and gilts, while competition among pigs for the food is similar to commercial conditions.

Experiments are under way with pens used for group housing and pens for individual housing, each pen equipped with an IVOG-station. Initially, 10 pairs of littermates per batch from three to five sires will be tested in 10 individual pens and 10 group pens with seven other pigs. Differences in food intake and food intake pattern between pigs housed in groups and pigs housed individually will be determined. Genotype \times housing system interaction will be estimated for the production traits: growth rate, ultrasonic backfat thickness, meat

percentage and food intake.

After three batches, 20 pens equipped with an IVOG-station will be used for group housing. Together with the data of group housing in the first batches, the correlation between food intake pattern and the production traits will be estimated. After at least eight batches, heritabilities for food intake pattern will be determined.

Data from two breeding companies were used to estimate genotype \times housing system interaction. The results indicated that genetic correlations between progeny in the two types of housing systems can vary from: 0.62 to 1.00 for ultrasonic backfat thickness, 0.65 to 1.00 for daily gain during the live period and 0.62 to 0.71 for daily gain during the fattening period.