

INFLUENCE OF GnRH-VACCINATION IN COMBINATION WITH PUFA REDUCED FEEDING ON BEHAVIOR, BOAR TAIN AND CARCASS QUALITY

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Introduction

GnRH-vaccination influences production of testicular hormones due to antibody GnRH-binding.

The aim of the study was to investigate the impact of this vaccination combined with standard or PUFA (Poly-Unsaturated Fatty Acids) reduced feeding schemes on behavioral traits, skin and tail lesions and penis injuries as well as boar taint and fat quality.

Material and Methods

288 male pigs (PlxGermanHybrid) of 3 consecutive fattening batches were randomly divided into 4 treatment groups (n=24) with (IC-Immuno castrated) or without (EM-Entire males) GnRHvaccination

and standard (S) or PUFA-reduced (P) feeding schemes (IC-S, IC-P, EMS, EM-P).

GnRH-Vaccination (ImprovacR) of the IC groups was performed twice in the 12th (V1) and 17th (V2) week of life. Skin and tail lesion scoring was performed at V1, V2 and 2 weeks later (NK). Behavioral parameters were recorded at V2 and NK for 60 min. At slaughter (average weight 120 kg) backfat samples (50% of the animals) and fat quality was analyzed. Furthermore, penises from all animals were excised and evaluated.

Results

No side reactions after vaccination could be observed in IC groups. EM groups displayed more mounting attempts (29.8) and mountings (3.0) as well as skin lesions (1.83) than IC groups (3.4, 0.0, 1.23) at NK. More penis injuries (scars and fresh wounds) were detected in EM groups without differing significantly between the two feeding schemes. At slaughter, five EM animals exceeded androstenone (>500 ng/g) and skatole (>250 ng/g) thresholds. All IC animals had androstenone concentrations below the thresholds, skatole concentrations varied between 80 and 100ng/g. No

influence of feeding scheme were observed.

Discussion and Conclusion

GnRH vaccination, in contrast to PUFA reduced feeding, influences the occurrence and consequences of typical boar behavior as well as reducing boar tainted pigs in this study. Analysis of fat quality will follow subsequently.