Boar taint and hormonal development in immunocastrated pigs of 3 sire lines

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Animals

INTRODUCTION

Boar taint compounds vary between (progeny of) different sire lines. Immunocastration reduces male hormonal and boar taint compounds. Some studies indicate the occurence of immunocastrates with boar taint. Differences between sire line progeny in boar taint compounds at the time of the second vaccination and in the evolution after second vaccination can be expected.

AIM: Evolution of testosterone and boar taint compounds in serum and fat for immunocastrates of 3 different sire lines.

RESULTS

- \checkmark At V2 AND_{serum}, AND_{fat}: CD, BP > FP
 - SKA_{fat}: CD, FP > BP
- ✓ After V2 Testosterone: ↓
 - \circ AND_{serum}: \downarrow , while AND_{fat}: \downarrow => \uparrow
 - SKA_{serum.} SKA_{fat}: gradual ↓, and SKA_{fat}: FP, CD > BP
 - IND_{serum}: ↑ for CD and FP
- ✓ At S
 o SKA_{fat} > 200 μ g/kg: 2/20 FP animals
 - O AND_{fat} > 2000 μ g/kg: 1/20 FP animals

Belgian Piétrain (BP) Hybrid Immunocastrates Canadian Duroc (CD) 15-20 animals/line SOW X French Piétrain (FP) V1 = 1st $V2 = 2^{nd}$ V2 + 2 (weeks) S = Slaughter 50 kg 70 kg 90 kg 115 kg Fat: androstenone, skatole Serum: testosterone, androstenone, skatole, indole

CONCLUSIONS

- ✓ Difference in % boar taint after immunocastration between sire lines are not related to differences in boar taint levels at V2
- ✓ More gradual decline of SKA after immunocastration should be taken into account.
- Biopsy sampling provides more information on the evolution of boar taint compounds, as serum and fat levels are only moderately correlated for AND $(r_{v2}=0.46; r_s=0.21)$ and not for SKA
- ✓ Increase in AND_{fat} from V2+2 to S needs further investigation by including biopsy samples just before transport to S.
- ✓ Increase of IND_{serum} for FP and CD needs further investigation in fat.













