

REDUCTION OF BOAR TAINT IN TWO TRIALS: 1. CHICORY OR LUPINS COMBINED WITH SLAUGHTER WEIGHT 2. FEEDING PURE GRAIN

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The purpose of the trials was to establish feeding methods or management strategies that can reduce the level of boar taint at slaughter. Hypotheses: (1) The addition of chicory or lupines to feed for male pigs and a reduction in slaughter weight will reduce both skatole and androstenone in back fat at slaughter. (2) Feeding pure grain to male pigs 4 days prior to slaughter will reduce the level of skatole in back fat at slaughter.

Trial 1. 468 male pigs were produced at a commercial trial farm; the pigs were fed a control diet until 2 weeks before the first pigs were slaughtered. Two diets were tested in a two-factor trial. Diets added either 15% chicory or 15% lupines were balanced according to nutrients. The pigs were slaughtered at either 75 or 95 kg carcass weight (98 and 125 kg live weight, respectively).

The addition of 15% chicory to the diet reduced the skatole equivalents (Hansen-Møller et al., 1994) in back fat from 0.08 to 0.05 ppm (37%), but did not affect androstenone (Hansen-Møller, 1994). Reducing the carcass weight by 20 kg (from 95 to 75 kg) significantly reduced the level of androstenone in the back fat by 30% from 1.72 to 1.23 ppm. The addition of 15% lupines to the diet did not affect boar taint. There was no interaction between feeding strategy and slaughter weight.

All male pigs were slaughtered over two times with an interval of 14 days. Pigs fed the lupines or chicory diets and delivered in the 2nd round were fed the diets for 4 weeks in total, as they all had to stay in the same pen until slaughter. As the diets were balanced, this did not affect the productivity. However, slaughtering pigs at a 20 kg lower carcass weight reduces the gross margin per pig.

Trial 2. Male pigs were slaughtered at approx. 80 kg carcass weight. 222 male pigs were fed control diet until slaughter and 225 male pigs were fed pure grain pellets (50% wheat and 50% barley to which fat and vitamins/minerals were added) the last 4 days before slaughter. The skatole equivalents (Hansen-Møller et al., 1994) were reduced by 25% from 0.08 to 0.06 ppm, but the human nose (Human nose Klassificeringskontrollen, 2012) did not show any differences between treatments indicating that androstenone was not affected.

All male pigs were slaughtered over two times with an interval of 14 days. Pigs fed pure grain and delivered in the 2nd round were fed pure grain for 8 days in total, as they had to stay in the same pen until slaughter. Feeding pure grain reduced the feed conversion and daily weight gain resulting in a 1.9 kg lower carcass weight. Although the skatole level was low in the herd, it was still possible to reduce the level of skatole. In conclusion: It is possible to reduce skatole by feeding either chicory or pure grain until slaughter. Only a reduction in slaughter weight affected the level of androstenone. Both strategies will increase costs of producing male pigs.