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**Contact voltages <0.5V in feeders and drinkers affects inflammatory and oxidative status of piglets**

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The aim of our study was to describe the effect of stray voltages lower than 0.5 V on inflammation and oxidative status biomarkers in weaned piglets. The study was conducted on a nursery barn with two rooms of 12 pens of 38 28-day old piglets each, on two batches in France. In each pen, stray voltages were measured for each drinker and feeder every two weeks (9, 23, 37 and 50 days after inclusion). On the same days, two cotton ropes per pen were suspended for 30 min in order to collect oral fluid for salivary cortisol dosage. Two pigs per pen (84 pigs in total) were randomly selected at inclusion and blood sampled on days 9, 30 and 50 after weaning for the dosage of haptoglobin, hydroperoxides (HPO), and blood antioxidant potential (BAP). Pens were allocated to 4 groups based on their voltage levels in drinkers and feeders, with high (HVD, >125 mV) or low (LVD, <125 mV) voltage in drinkers and high (HVF, >50 mV) and low (LVF, <50 mV) voltage in feeders (LVD-LVF: n=24, LVD-HVF: n=15, HVD-LVF: n=26, HVD-HVF: n=19). Effects of voltage in drinkers, in feeders and their interaction on haptoglobin, HPO, BAP and salivary cortisol were analysed using a linear mixed model with pigs, pens and replicates as a random effect. Haptoglobin concentration was numerically higher in pigs exposed to HV in drinkers and feeders compared to the others, but without significance. HPO concentration tended to be affected by drinker × feeder voltage interaction (P=0.06). On day 50, HPO concentration was significantly higher in the group exposed to HV in both drinkers and in feeders compared to the 3 other groups (P=0.02). BAP and salivary cortisol concentrations were not different between groups. This is the first time that moderate consequences on oxidative status in weaned piglets of stray voltage lower than 0.5 V is reported in pigs. This suggested a possible detrimental effect for the health of pigs, but these results must be confirmed by further trials.



**The ECO-PIG project: use of a new high fibre feed for outdoor finishing of intact male local pigs**

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Thirty male pigs of the Portuguese Alentejano (AL) breed raised outdoors with *ad libitum* water and feed were used to test the effects of a new high soluble dietary fibre feed on animal performance and carcass traits. From 40 to 130 kg body weight, surgically castrated (group C) and intact pigs (groups I and IE) were fed with commercial feeds. From 130 kg until slaughter (160 kg), groups C and I ate a commercial diet, while group IE was fed the isoproteic and isoenergetic experimental diet, with the incorporation of agro-industrial by-products. Average daily gain (ADG, g/d) was different between groups, with IE pigs presenting a higher ADG than C (691±15 in IE, 649±22 in I, and 610±12 in C pigs, P=0.008). This led to fewer days on trial of IE and I pigs, when compared to C pigs (167±4 in IE, 175±2 in I, and 193±5 in C pigs, P<0.001). Feed conversion ratio was different in all groups, with the lower value in IE and the higher in C group (3.9±0.1 in IE, 4.2±0.1 in I, and 4.6±0.1 in C pigs, P<0.0001). Commercial yield (%) was higher in IE and I groups (48.9±0.3 in IE, 48.8±0.3 in I, and 46.6±05 in C pigs, P<0.001), mainly due to their higher proportion of untrimmed ham. The opposite happened with the fat cuts (%) (24.7±0.4 in IE, 25.0±0.4 in I, and 28.7±0.3 in C pigs, P<0.0001), due to a lower proportion of belly and backfat cuts in IE and I groups (P<0.001 and P=0.002 respectively). ZP fat depth and average backfat thickness were also lower in IE and I groups than in C group (P<0.0001). Overall, these data show that the experimental diet had no effect on growth and carcass traits of intact AL pigs when compared to the ones obtained in intact AL pigs consuming commercial diets. On the other hand, intact AL pigs raised outdoors reached slaughter weigh faster and produced leaner carcasses than castrated ones. Further studies will test the effect of the experimental high fibre feed on pork boar taint and meat quality of intact AL pigs raised outdoors.