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Quality of pig carcasses of surgical- and immunocastrated males slaughtered at different live weight

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Nowadays in the world there is trend to slaughter the pigs at more heavy live weight, because of better economic effectiveness of fattening. Traditionally Ukrainian pork producers slaughter the animals with live weight 100-110 kg but would like to raise the weight before slaughter, working with hybrid pigs. According to reports of some researchers the increasing of weight before slaughter causes worsening of carcass quality, especially in surgically castrated and entire males. As a solution the immunological castration can be taken into account especially for rising heavy weight pigs. This assumption has been investigated in presented research. The trial has been organized under the condition of commercial farm on hybrid animals (Yorkshire×Langrass×Maxgro). Two groups of pigs with 30 heads in each were formed (surgical and immunological castrated males). Surgical castration was done at the age 4 of days, immunological – by application of Improvac vaccine in accordance to the instructions for use. All animals were kept together and slaughtered at the same time but with different weights: from 100 till 120 kg. Carcass evaluation was made using Fat-o-Meater S71. The thickness of the backfat was measured at the level of 6-7 thoracic vertebra and at sacrum. Carcass grading has been done using EUROP and Ukrainian scale. Sensory evaluation of carcasses after slaughter was performed. The results suggest that increasing of live weight before slaughter of immunocastrated males till 120 kg does not influence negative their carcass quality. Dressing percentage of carcasses did not depend on live weight before slaughter in both groups. Carcasses of immunocastrated males had lower backfat thickness measured at 6-7 thoracic vertebra: slaughter at 100 kg – by 2.8 mm; slaughtered at 120 kg – by 3.3 mm. After slaughter at weight 120 kg 70% of carcasses of immunocastrated males were graded E + U, while in the group of surgical castrated males such carcasses were only 50%. It was not detected critical level of boar odour in all slaughter weights.

Influence of housing conditions on antibody formation and testosterone after Improvac vaccinations

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Immunocastration of entire male pigs is a valuable tool to avoid surgical castration in pork production and to reduce both, problems in welfare due to aggressive and sexual behaviour and product quality as well. The amount of 'non-responders' to a twofold vaccination with Improvac is discussed controversially. In physiological studies a pronounced variation in the formation of Anti-GnRH antibodies may be observed, pointing to the fact, that the reaction is not an all-or-nothing phenomenon, but systematical studies on relevant environmental factors are missing. Thus in a current study the effect of standard housing conditions is compared to enriched conditions (organic production) and stressful housing (mixing of groups) on the formation of GnRH-antibodies after two Improvac vaccinations. Additionally the consequences for testosterone levels and aggressive behaviour are evaluated. First results of a larger study are presented. The study aims on the identification of factors reducing the effectiveness of immunocastration to improve the reliability of immunocastration under practical conditions.