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ORGANIC MALE PIGS IN DENMARK

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The purpose of the trials was to determine the level of boar taint in Danish organic pigs.

Fifty male pigs were produced in 6 different organic herds, in total 296 pigs. The pigs were slaughtered at approximately 110 kg live weight. At slaughter, the skatole equivalent (Hansen-Moller et al., 1994) as well as the human nose (Danish method) (Hansen-Moller, 1994) were measured in the back fat of each pig. Furthermore, androstenone, skatole and indole were measured by HPLC at a laboratory (Human nose Klassificeringskontrollen, 2012). Herd conditions and management were described/analyzed for each farm". All male pigs were fed the organic finisher diets that were normally used in the herds.

The results showed an average skatole equivalent of 0.18 ppm resulting in rejection of 18% if the rejection limit was >0.25 ppm. The average human nose level was 0.7 (scale 0, 1, 2 where 2 is rejected) leading to a rejection rate of 16%. Using both skatole equivalent level and human nose, the rejection rate was 26%. Androstenone analyses showed an average level of 2.3 ppm, and a rejection rate of 66% if the rejection limit was 1.0 ppm androstenone. If the carcasses had to be below the stated limits of skatole, human nose and androstenone, the total rejection rate reached 68%. There was a great variation between herds; for skatole the rejection rate varied between 4% and 26%; for human nose it varied 10-39%; and for androstenone 21-95%.

Taking the herd conditions into account, only a few explanations could be made of these variations:

The herd with the highest rejection rate had a very low daily weight gain caused by disease outbreak and as a result the pigs were very old at slaughter and this could have caused the high androstenone levels.

One herd had very dirty pigs, which is known to lead to high skatole levels.

Three herds had mixed sexes in the pens, which could lead to early maturation and high androstenone levels.

In general, organic pig producers have to use feed with high protein levels leading to more substrate for skatole production in the intestine and in fat. Further, organic pigs are in older at slaughter, which increases the risk of higher androstenone levels.

All in all if the organic pig producers are going to produce male pigs, they will need some tools to reduce the level of boar taint in order to be able to deliver high quality pork and have a positive bottom-line in their pig production.

Keywords: organic, male pigs, screening.