Measuring tail length and tail bites on pig carcasses

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Tail biting can be a problem in the pig production, and tail docking is therefore widely used. However, this is also a painful and time-consuming extra handling of the piglets. However, a ban on tail docking will demand extra focus from the farmers in order to avoid tail bites, as longer tails are more attractive for biting. Feedback to the farmers from the slaughterhouses concerning tail bites can be a way to ensure a continuous focus on the problem. The aim of the project is therefore to develop a vision-based system for on-line measuring of tail length and tail bites on the pig carcasses. Furthermore, the project aims to evaluate the effect of the feedback to the farmer on the level of tail bites in the herd. A vision-based system at the slaughter line can collect information about tail length and tail bites. The system takes two pictures of the tail – one with 3D information and one with colour information. From these pictures, the tail length and width are measured, and the area with tale bites is calculated. The tail length and width can estimate the frequency of older tail bites while the colour differences represent bites that are more recent. The frequency of tail bites observed in a given herd can be determined and given as feedback to the farmer. The vision system is under development at the Danish Meat Research Institute and will be tested ultimo 2017.