Tail biting in pigs – what do we know about it?

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Tail biting is usually considered a negative consequence of confinement housing systems, mainly due to the barren environment of the fully slatted floor which cannot provide rooting materials for pigs to manipulate. However, in alternative production systems where pigs are provided bedding (usually straw or corn stalks in the Midwest), tail biting can also become a problem. In fact, tail biting concerns alternative producers more than it concerns conventional producers because alternative producers do not dock tails. Tail docking reduces incidence of tail biting, but it causes pain in pigs and is coming under scrutiny for animal welfare reasons. So, tail biting is a contemporary issue that challenges both alternative and conventional swine producers.

Regardless of the causes, ultimately tail biting is an abnormal behavior. To tackle the problem, researchers attempt to understand the development of the behavior. In general, three different types of tail biting are proposed. The first type of tail biting is considered re-directed foraging behavior. It is suggested that when pigs are housed indoors and cannot perform foraging behavior, either due to lack of suitable materials or space, they re-direct the foraging behavior to rooting and chewing their pen mates. Usually, ears and tails become the major targets of rooting and chewing because they are readily available for manipulation. As pigs grow, chewing can become biting, especially when triggered by stress. Tail biting is usually worse than ear biting because victim pigs can protect their ears better than their tails. In this case, any pig can become a tail biter. Once a tail biter emerges, an outbreak of tail biting will occur. The second type of tail biting is believed another form of aggression. When pigs are restricted for resources, such as too few feeders, drinkers, or limited floor space, they try to displace other pigs from the resources by biting their tails. In this case, usually the dominant pigs are tail biters and biting usually occurs near the feeder or drinker. The third type of tail biting is assumed ‘obsessive’ tail biting. For some reason, some pigs are genetically wired for tail biting. These pigs, so called ‘obsessive tail biters’, persistently go around and bite the tail from one pig to another in the pen once triggered. These pigs are poorly understood. However, it is usually relative easy to identify the obsessive tail biters at the early stage of an outbreak of tail biting because of their persistent tail biting behavior. Once the obsessive tail biter is identified and removed from the pen, the problem of tail biting can be solved. In a study (titled: Tail biting in growing-finishing pigs; sponsored by the National Pork Board) currently underway at the WCROC, we have identified an obsessive tail biter. At 10 weeks old, the obsessive tail biter caused an outbreak of tail biting in a pen of 30 pigs, with 28 pigs in the pen having injured tails. The tail biter was identified on the day when an outbreak of tail biting was evident. After the tail biter was removed, all victim pigs with injured tails were healed within 3 days. Since then, no pigs have been removed from the pen due to tail biting over 14 weeks. This case demonstrates that it is possible to solve tail biting problems by identifying tail biters at an early stage of an outbreak. However, it is not an easy task to identify the real tail biters, especially to identify the first two types of tail biters. In addition, as tail biting progresses, some pigs can become followers of the tail biter, and it is hard to differentiate the original tail biters from the followers. Due to these challenges, tail biting is still an intractable problem in swine production. In the current study, we are collecting data of behavior, physiology, health and performance of tail biters, victims and control pigs, with an ultimate goal of identifying characteristics of tail biters. In addition, we will examine the three types of tail biting closely when we have all data collected and summarized by the end of this year.

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