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A Greener World Technical Advice Fact Sheet No. 19

Avoiding the Need to Teeth Clip Piglets

Certified Animal Welfare Approved by A Greener World (AGW) has the most rigorous standards for farm animal welfare currently in use by any organization in North America. Its standards have been developed in collaboration with scientists, veterinarians, researchers and farmers across the globe to maximize practicable, high-welfare farm management.

Teeth clipping

Piglets are born with eight fully-erupted teeth, commonly referred to as needle teeth. Starting in the first hours after birth, piglets compete with their littermates to establish a teat order. When competing for access to teats, they deliver sideways bites with the needle teeth to their littermates, while facing the udder. Piglets normally remain on the same teat or teat pair throughout lactation, with piglets returning repeatedly to a particular teat and defending it stoutly. Piglets have traditionally had their needle teeth clipped or ground because of concerns that they would injure their litter mates, the sow or both.

Problems with teeth clipping

There are several negative aspects to teeth clipping which has led Certified Animal Welfare Approved by AGW to prohibit the practice:

- Clipping teeth is painful for the piglets
- The procedure can expose the tooth pulp cavity to infection
- Clipped teeth may fracture and bleed
- Abscesses may form
- Gum damage may occur.

Some studies have shown that teeth-clipped piglets display teeth champing after the procedure and spend more time sleeping, a possible indication of sickness due to infection of mouth injuries.

If the tool used to clip the teeth is dull or broken it may splinter or split the tooth down through the roots, instead of neatly cutting off the sharp points of the teeth. Infection that gets into the

roots is extremely painful and prevents the piglet from eating. Often the first sign of a tooth infection is a poor-doing piglet, which will usually get up to nurse with its littermates, but suckles intermittently. Swelling of the snout is usually noticeable from a normal view and when the mouth is opened the damage is obvious. The best way to prevent problems associated with broken teeth and mouth infections is to quit teeth clipping.

Joint infections in piglets are sometimes caused by the bacteria *Step. suis*. The bacteria can enter the piglet's bloodstream through damaged gums or broken teeth. If a piglet with a swollen joint also has infected teeth it is possible that damaged equipment or poor clipping technique is causing the problem.

One recent study concluded that, as well as short-term pain, pigs are likely to experience long-term pain from the tooth abnormalities that occur following clipping, and that this pain is likely to last until the milk teeth are lost and replaced with permanent teeth – a period of 50–120 days. This means that many pigs reared for meat may experience pain as a result of tooth clipping throughout their entire life.

Facial lesions and udder damage

The incidence of facial and udder lesions is generally increased when teeth are left intact. However, one group of British researchers looked at 550 piglets in 49 litters and found that the facial wounds they observed were relatively superficial. Their research (and that of others) showed a lack of any ill effects on piglet health, weight gain or survival, leading them to question the welfare and economic importance of such facial wounds. A Michigan study also found that nursing growth rates were similar between pigs with clipped or intact-teeth, and that pre-weaning mortality was actually lower among pigs with intact-teeth that were nursing first litter sows or those of parity six or greater. The lack of evidence to suggest that these lesions affect piglet mortality or weaning weight suggests that there is little – if any – justification for teeth clipping.

While studies have confirmed that teeth clipping can reduce the facial lesions of piglets, the results of research on the reduction in mammary lesions are inconsistent. Some studies show fewer scratches to the teats from clipped versus intact piglets, while others show small differences depending on the number of days since birth of the litter – or no effect of teeth clipping on damage to the udder at all. In the UK, for example, scientists reported mean udder injury scores (0 = no wounds and 3 = several wounds) for sows nursing intact-teeth litters, averaging 0.05 over the course of a 21-day lactation period vs. 0.03 for those nursing clipped litters. Similarly, Canadian researchers reported that only one of 170 sows (0.6%) they used in the intact-teeth treatment group had lacerations on the udder. One hundred and twenty five of

the 170 sows (74%) nursed between nine and 14 piglets, an indication of the degree of competition at the udder in this study.

Research shows that the presence of injuries and behavioral changes in sows with piglets with intact teeth does not affect the sows nursing frequency or milk output, as indicated by no difference in studies which examined weights between piglets with clipped, ground or intact teeth.

Managing the sow and litter when not teeth clipping

Many producers have already abandoned teeth clipping. Besides saving labor, they report having fewer poor-doing piglets and fewer cases of joint infections that can result from teeth clipping. In a report on teeth clipping, the University of Nebraska suggested that producers who have not yet tried to stop clipping should clip only half of the litters in a few farrowing groups and observe for possible problems.

The key points to take into account for successful sow and piglet management without teeth clipping are:

Do not breed for extremely large litter size

Competition for access to teats is increased in larger litters. Limiting litter size to that which can be fully sustained by the sow is important to minimize competition between piglets – and subsequent risk of injuries. Genetic selection should aim to avoid exceeding an average of 12 piglets born alive per litter.

Ensure the sow is healthy with good milk production

Competition at the udder is also affected by sow health and milk production. Good feed and water provision will support milk production. Greater milk production is also more likely in farrowing systems that allow the sow freedom of movement, both as a general consequence of improved welfare and comfort leading to higher feed intake, and from a reduction in the incidence of specific conditions affecting lactation.

Ensure litter sizes are even

Canadian researchers concluded that piglets use their needle teeth to compete against littermates for milk and other resources. They tried selectively clipping teeth, where one or more low-birth weight piglets had their teeth left intact when the rest of the litter was clipped. Overall, the lower-birth weight piglets benefited from intact teeth in terms of lower mortality and higher weight gain. However, that benefit was completely offset by a comparable disadvantage to the larger littermates whose teeth were clipped. Therefore, the treatments

had no effect on overall piglet mortality or weight gain. It did reduce within-litter 21-day body weight variation by 15%, leading to more uniform weaning weights.

However, selective clipping is not the only way to achieve more uniform weaning weights. Proper cross-fostering within 24 hours of birth to even-up litter size and piglet bodyweight is also effective, while identifying fall-outs quickly and providing them better nutrition will reduce weaning weight variation.

Ensure there is adequate space and enrichment for the sow

Providing enrichment and adequate space in the farrowing environment has a beneficial effect on sow health and welfare, and consequently on milk production. Studies have found that sows provided with straw performed more rapid suckling grunts during nursing, which are associated with oxytocin release and milk let down.

In loose farrowing systems it is likely that piglets with intact teeth will have little impact on the welfare of the sow as she can escape. For example, one study observed no damage to the udders of outdoor sows with either clipped or intact litters.

The introduction of enriching substrates for piglets may also divert the piglets' attentions away from the sow, making the need for clipping less important. Researchers found that four-week-old piglets kept in enriched pens manipulated sows' udders less often than piglets kept in barren pens.

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KEYWORDS

Teeth, facial lesions, udder damage, litter size, management of the sow and litter, space and environment.