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NebGuide

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Preventing Tail Biting in Swine
(Anti-Comfort Syndrome)

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Tail biting in swine could be renamed the anti-comfort syndrome, for any feature of the pig's environment that makes it uncomfortable may be expressed as tail biting. Tail biting is the most common of the pig's anti-social vices, but not the only one. Ear chewing, navel sucking and acute cannabalism are other forms of anti-social expressions.

Tail biting and similar acts are either chronic or acute. Chronic tail biting is less severe but still of economic concern. A tail bitten pig of the chronic type is reluctant to stand at the feeder and eat, as this exposes its tail to further assaults. Thus, to protect its tail the pig generally stays in a corner or lies down to protect its rear. While protecting its rear, gain and feed efficiency are moderately to severely affected. Since the open wound on a chronically bitten pig is a source of infection, abscesses sometimes result, lowering the carcass value.

Acute tail biting is often called cannabalism and frequently results in crippling, mutilation and death. The onset is much more rapid and the cures less effective. Many times the tail is bitten first and then the attacking pig or pigs continue the assault on other parts of the anatomy. If the situation is not attended to, the pig will be killed.

The Cause

A number of environmental factors have been identified as predisposing to tail biting. Most tail biting cases can be solved by analyzing the management situation. The following is a list of factors or recommendations that should reduce or prevent the problem.

Lack of feeder space—Pigs tend to be impatient. Waiting an unreasonable period of time to get to a feeder may cause a pig to bite the nearest item, which many times is the tail of a pig that is already eating. If a rectangular feeder is used, one feeder hole for every four pigs is recommended, and five pigs per hole if a round feeder is used. It is not enough to have the correct number of pigs per feeder hole—good management must also make certain that fresh feed is *equally* available in *all* feeder holes.

Lack of watering devices—Provide one cup-type waterer for every 25 pigs. If a nipple-type waterer or drinking tap is used, one for every 15 to 20 pigs is recommended. The cleanliness of the drinking cup or potability of the water may be linked to tail biting even if the correct number of watering devices is provided. Remember, *any* factor that causes pig discomfort may lead to tail biting.

Space per pig—Tail biting is more common in confinement. Therefore, the space recommendations of confinement reared pigs should be carefully considered.

Pig weight or class	Square feet/pig for partial or total slats
15 to 30 lbs.	1.7 to 2.5
30 to 60 lbs.	3 to 4
60 to 100 lbs.	5
100 to 150 lbs.	6
150 lbs. to market	8[a/]

[a/] Adjusting pig numbers per pen seasonally may result in improved performance. For example, increasing the number per pen by 1 or 2 pigs during winter may be desirable.

Building with outside apron.	
Growing-Finishing Pigs	6 sq. ft. inside plus 6 sq. ft. outside
Sows	11 to 12 sq. ft. inside plus 11to 12 sq. ft. outside

Crowding pigs into less than the recommended space is a common cause of tail biting.

Temperature, humidity, ventilation—The quality and temperature of the air in confinement buildings is sometimes incriminated in tail biting cases. For example, unusually dusty conditions or temperatures that fluctuate widely from that particular class of pigs' comfort zone may lead to tail biting. Certain gases in sufficiently high levels may also irritate the pigs and make them uncomfortable. Wet floors may have the same effect. While specific recommendations on the quality of air within the building cannot be made, an alert manager will recognize unusual conditions, find the cause and make the necessary adjustments.

Uniform size within pens—It is often observed that a smaller pig is the aggressor in a tail biting case. Therefore, it is important to have pigs of an uniform size occupying each pen. There is no conclusive evidence that gilts initiate tail biting more frequently than males.

Weather factors—The influence of weather conditions on animal behavior has not been studied well enough to make specific recommendations. However, a University of Nebraska test, observations and field reports suggest that sudden drops in barometric pressure are associated with tail biting. The alert manager will be aware of this and observe his animals more closely when weather reports indicate the rapid approach of "low fronts," particularly during the spring and fall of the year.

External parasites—Field cases have shown that mange and lice may cause a greasy exudative condition behind the ear or under the flank, which attracts other pigs to this part of the body, and cannabalism may result. A dipping or spraying program removes this risk.

Hemolytic streptococcus—These bacteria have been identified in some field cases as a possible cause of tail biting. These bacteria cause anemia by attacking the blood cell. Anemia, regardless of the cause, is thought to predispose anti-social vices in some instances. Avoid all types of anemia, including nutritional, by using careful management.

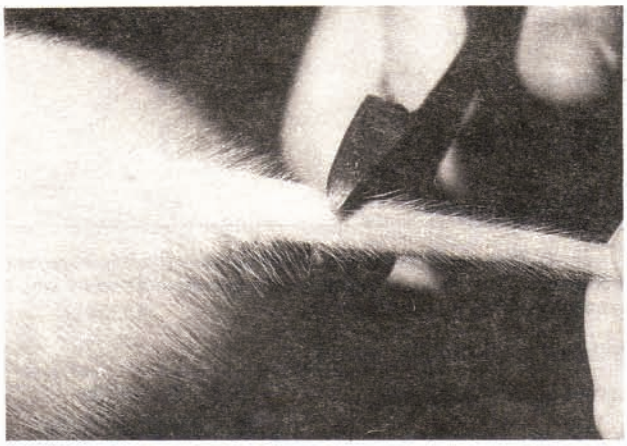
Nutrition—Dietary deficiencies have been incriminated in some cases. However, malnutrition as such is not considered as a direct causative factor. If a given ration is sufficiently unbalanced or deficient in specific nutrients to make the pig uncomfortable, tail biting may result. The importance of providing a ration that meets that class of pigs' requirements has importance beyond the prevention of tail biting. However, should tail biting occur, careful analysis of the diet for nutrient content and quality is indicated.

When added to the diet, magnesium oxide is sometimes reported to be effective in the prevention and cure of anti-social vices. However, tests at Nebraska and Purdue show a negative effect on tail biting, growth rate and feed efficiency when magnesium oxide is added.

Some producers report that increasing the salt level in the diet from .5 to 1 percent caused tail biting to stop or prevented it. This does not imply that the pigs were deficient in salt. Undoubtedly, the added salt intake resulted in a corresponding increase in water intake which, in turn, may have altered the pig's metabolism enough to change its activities or comfort level. Other elements or nutrients may act in a similar manner.

Prevention

Docking the tails on pigs before they are one week old is perhaps the most widely accepted and effective means of preventing tail biting. The recommended procedure is to use a tool such as a side-cutter and remove the tail about one inch from the body. Pulling the skin slightly toward the body before removing the tail results in more skin to cover the wound, allowing more rapid healing. It is a recommended practice to treat the stub with iodine. The older the pig is when his tail is docked, the greater



The tail should be docked during the first week of the pig's life.

Leave one inch of tail and treat the stub immediately with iodine.

the risk of infection and injury. Following recommendations on tail docking will result in short term pig discomfort. However, the pain and discomfort associated with tail biting if pigs are not docked makes tail docking a humane recommendation.

Occasional field reports suggest that removing only the switch from the tail is sufficient to prevent tail biting. However, this was not the case in one university study. Therefore, if tail docking is done, it appears the most effective method is to leave only one inch of the tail.

Anti-tail biting aerosol sprays are commercially available and have some effectiveness in prevention and cure. Using these sprays as a preventive is effective if used as directed. However, in practice, few managers anticipate tail biting problems, so the odor-masking spray products are generally used as a cure, which is less effective. It should be noted that these sprays are more effective in a completely enclosed building than in a modified open-front or open-front outside-apron building.

Providing objects that prevent boredom may help to reduce the incidence of tail biting. Some producers suspend a tire from the ceiling that will swing, clearing the floor by several inches. A variation of this is a mineral block suspended from the ceiling in a chain sling that clears the floor by about 12 inches. Semi-round rocks and bowling balls are examples of other items placed in the pen to prevent or alleviate boredom. These "playthings" sometimes reduce tail biting, but their effectiveness is often of short duration.

Following all the recommendations on feeder space, waterers, space requirements, ventilation and the like, will go a long way toward prevention of tail biting.

Remember, if the pig is comfortable, anti-social vices are rare. But if the pig is uncomfortable, tail biting is one way of expressing its discomfort.

Metric Conversion Table

English	*Multiply by*	*Metric*
Inch (in)	2.54	Centimeter (cm)
Square foot (sq. ft.)	0.09	Square meter (m^2)
Pound (lb)	0.45	Kilogram (kg)

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