

Belly Nosing, Belly Suckling, and Tail Biting in Early Weaned Pigs

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SUMMARY

Observations were made on the incidence of belly nosing, belly sucking, tail biting and other oral-nasal behaviours of pigs weaned at 14 days-of-age, at intervals up to the finishing stage. Belly nosing peaked approximately 2 weeks after weaning at 5% of the time, while belly sucking remained at less than 1% of the time throughout the animal's life. Tail biting only occurred in the finishing phase and occurred at approximately 0.5% of the time. Although the peak incidence of belly nosing by a pig was correlated with belly sucking, tail biting was only weakly related with any of the other behaviours.

INTRODUCTION

Early weaning of piglets, at less than 3 weeks of age, was widely adopted by the industry in the late 90's. Although the practice has some distinct advantages, it is also recognized that it results in some problems and management must be very good. One of the problems associated with early weaning is a higher incidence of behavioural vices, such as belly directed behaviour. Close observation of pigs performing belly directed behaviour indicates that it exists in two forms, belly nosing and belly sucking. The objective of this study was to investigate the incidence and frequency of belly nosing and belly sucking behaviour in early-weaned pigs and how these relate to other oral-nasal behaviour of pigs, including tail biting, in the grow-finish stage.

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EXPERIMENTAL PROCEDURES

We studied 242 piglets, from 24 litters weaned at 14 days-of-age and observed belly nosing, belly sucking, other nosing (to other parts of the body) other sucking, and biting behaviours at 18, 23, 28, 50, 63 and 91 days-of-age. We used instantaneous scan sampling (observations at 5-min intervals) to determine the amount of time spent in each behaviour, and continuous observations (for 4 hours on days 21 and 35) to determine the frequency and bout lengths of each behaviour. Pigs were individually identified with paint and ear tags prior to observations in the nursery and finishing pens, respectively.

RESULTS AND DISCUSSION

Belly nosing was found to begin within 4 days of weaning, peak at 23-28 days of age, and gradually decrease with age thereafter (Table

Table 1. Time budgets for the performance of belly nosing, belly sucking, and tail biting from 18-91 days-of-age by early-weaned pigs.

	Age (days)					
	18	23	28	50	63	91
Belly Nosing (%)	1.5	4.1	5.4	1.8	1.4	0.9
Belly Suckling (%)	0.1	0.3	0.3	0.7	0.8	0.9
Tail biting (%)	-	-	-	-	0.4	0.5

1). At its peak, pigs spent an average of 5% of their time, or 70 min/day belly nosing. Belly sucking increased with age throughout the nursery and reached a peak in the grow-finish phase. Pigs in the finishing phase spent approximately 1% of their time belly sucking, or about 14 min/day. The length of belly nosing and sucking bouts increased with age, ranging from 17 to 27 sec/bout for belly nosing, and 23 to 58 sec/bout for belly sucking. Other nosing remained fairly consistent at 2-4% of the time at different ages, as did other biting at 1-2% of the time. Other sucking was low until late in the finishing phase when it reached 4% of the time. Tail biting, recognized as a damaging behaviour, did not appear until the grow-finish phase and only reached 0.5% of the time, or an average of 3-4 min/day.

Our previous research indicated that there is considerable variation among piglets in how much belly nosing they perform, with some exceeding 10% of their total time. In this study we determined by correlation analysis that piglets that performed the greatest amount of belly nosing during the peak of this behaviour at 28 days-of-age were more likely to belly nose and belly suck other pigs in grow-finish. In general, tail biting was only weakly correlated with nosing and sucking behaviours in the nursery.

CONCLUSIONS

Belly nosing and tail biting peak at two distinctly different stages in a pig's life, early nursery and finishing, respectively. A poor association between the two vices indicates that they probably originate from two different motivational systems. Other oral behaviours, such as nosing, sucking and biting directed at different parts of the body are relatively stable throughout the pig's life to 91 days-of-age. Different management tools will be needed to control belly nosing and tail biting, as their causative motivations appear to be specific and distinct from each other.

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