

Trough half empty: Pregnant sows are fed under half of their ad libitum intake

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Abstract

Pregnant (dry) sows (Sus scrofa) are fed a rationed amount of feed to maintain healthy weight and production but this does not satisfy their hunger. This study measured the extent of feed restriction compared to sows' desired intake. Forty-seven Large White × Landrace sows were housed in small groups with straw bedding and individual feeding stalls. Following three days on a standard ration of 2.5 kg, they were offered 10 kg a day of commercial dry sow feed for three days, split into four 2.5-kg meals a day which enabled individual intakes to be measured. This quantity was effectively ad libitum (maximum daily intake 9.4 kg). Mean (\pm SEM) intake per day over the three ad libitum days was 5.67 (\pm 0.24) kg, compared to the 2.5-kg standard ration. The ration thus provides less than half (44.1%) of sows' desired intake. Behaviour on their third rationed day was compared with behaviour on the third day of ad libitum. Eating rate and the display of hunger-related behaviours, particularly following the morning feed, was greater under ration feeding; sows spent more time in the food stall and less in the straw bed, and more time active rather than resting. During ration-feeding sows also chewed and nosed more at straw bedding and pen equipment and used the drinker more after their morning meal than when they were fed ad libitum. Eating rate on the last rationed day was positively correlated with feed intake on each of the ad libitum days. Despite an EU requirement for fibre to be added to diets to ameliorate this problem, and the provision of straw bedding, hunger resulting from food restriction remains a welfare concern for dry sows.

Keywords: animal welfare, behaviour, eating, hunger, quantitative restriction, sows