

# SOW HEAT STRESS

KEEPING OUR LIVESTOCK HAPPY AND HEALTHY



## WHAT IS HEAT STRESS?

Sows have a thermoneutral zone of 15-20°C (Zhu et al., 2021) This is the range within which a sow can maintain a normal body temperature. When an ambient temperature exceeds the critical temperature, a sow will likely undergo heat stress. An understanding of heat stress and its impact on sow welfare and piglet performance is crucial to running a successful pork operation.

## FEEDING BEHAVIOUR

One of the most commonly observed effect of heat stress in sows is reduced feed intake. Typically, heat-stressed sows will spend less time feeding, and consume lower amounts of food than sows under thermoregulatory conditions (Quiniou et al., 2000).



## DRINKING BEHAVIOUR

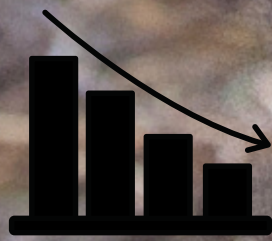
When placed under heat stress conditions, sows are also likely to alter their drinking behaviour. Sows will often display an increase in water consumption (Quiniou et al., 2000).

## POSTURING BEHAVIOUR

Sows may also alter their posturing behaviour in response to heat stress. Often, sows will spend more time lying down than in more dynamic postures such as sitting or standing (Liu et al., 2021).



## EFFECTS OF HEAT STRESS



The effects of heat stress are not limited to sow welfare. Exposure to heat-stressed conditions can have an impact on sow productivity and corresponding offspring performance. Heat-stressed sows will often produce litters with lower weaning weights due to a combination of the behaviour alterations discussed above (Muns et al., 2016).

## REGULATING HEAT STRESS

Various methods of mitigating heat stress including snout and drip cooling, floor cooling, and chilled drinking water have been investigated by researchers (Bjerg et al., 2020). The effects of modified housing systems have also been studied (de Oliveira Júnior., 2011; Devillers & Farmer, 2008). Each of these strategies have benefits and downfalls, and more research is required to determine the most effective approach.



### References

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