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Heat stress in the lactation sows

Abstract

A meta-analysis was carried out to evaluate the effect of heat on the performance of lactating sows and their litters. The database containing information on the effects heat stress has on the productive and reproductive performance of lactating sows was composed by 20 articles published in international journals from 2000 to 2016, totalizing 2,222 lactating sows. The duration of lactation was corrected to 21d. In the studies analyzed, the most representative variables were piglet weight at 21 days (kg) and litter weight at 21 days (kg). Daily ambient temperature (T°C) ranged from 15.0 to 32.0°C. Rectal temperature and respiratory rate were higher in lactating sows maintained in hot conditions compared to those maintained in the thermal comfort range. The nutrient intake by the lactating sows was inversely proportional to the ambient temperature. The piglets weaned of lactating sows were kept in thermal comfort 90.84 heavier percentage point after 21 days of the piglets of lactating sows kept in heat stress environment. Piglet weight gain exhibited a high and negative correlation with ambient temperature. At 1°C above the thermal comfort range (from