

EFFECTS OF BOAR STIMULI ON THE FOLLICULAR PHASE AND ON OESTROUS BEHAVIOUR IN SOWS

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This review describes the role of boar stimuli in female receptive behaviour, and the influence of boar stimuli during the follicular phase. Receptive behaviour (standing response) in an oestrous sow is elicited by boar stimuli, which are olfactory, auditory, tactile, or visual. The relative importance of these stimuli is not clear. Individually, olfactory and tactile stimuli elicit a standing response in a variable percentage of sows, depending on the study, but not in all sows. Nevertheless, both tactile and olfactory stimuli seem essential to elicit a standing response. Contact with a boar is always more potent than combinations of boar stimuli. Intensive boar contact can cause habituation, reducing the responsiveness to boar stimuli. It is not clear how behavioural oestrus is 'prepared' at the brain level. Oestrogens are a key factor in the neuroendocrine maturation that precedes oestrus. The opiate system is probably also involved. Once a sow is in oestrus, the neuroendocrinological events that are triggered by boar stimuli and that induce a standing response are not well understood. Oxytocin and prolactin are both released during a standing response, and again, the opiate system seems to be involved. Boar stimuli are also important during the follicular phase. In gilts and sows, follicle development and (first) oestrus is advanced by boar exposure. Although there is very little evidence for this, an increase in LH secretion, caused by contact with a boar, is probably the explanation. With respect to this mechanism, habituation to boar stimuli might also play a role.