

# AN ATTEMPT TO STIMULATE SEXUAL BEHAVIOR OF BOARS

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## Story in Brief

Boars which lacked the ability to mate were identified by exposure of boars to estrous gilts for 15 minutes each week for four weeks commencing at six months of age. Boars which lacked libido, were treated with saline or prostaglandin  $F_{2\alpha}$  ( $PGF_{2\alpha}$ ) prior to a libido test with an estrous gilt. Treatment with  $PGF_{2\alpha}$  did not increase the number of boars that mounted or mated with gilts. We conclude that mating behavior of boars, that have been identified to lack mating ability after four weekly exposures to estrous gilts, is not enhanced by treatment with  $PGF_{2\alpha}$ .

(Key Words: Boar, Libido, Prostaglandin.)

## Introduction

Boars must have the ability and desire to mount females, as well as the ability to ejaculate. Too many young boars lack the ability to mount and inseminate gilts. It would be desirable to have a treatment that could be used to stimulate sexual behavior of boars without detrimental effects on fertility. Szurop and coworkers (1985) found that treatment of young boars with an analog of  $PGF_{2\alpha}$  improved the number that mounted a dummy at the first training session for semen collection. The treatment also reduced the reaction time of fatigued older boars. The objective of this trial was to determine if treatment of young boars, that lacked libido, with  $PGF_{2\alpha}$  would enhance mating behavior.

## Materials and Methods

Hampshire boars were penned with other boars between three and six months of age. Commencing at six months of age, sexual behavior was evaluated each week for 4 weeks to identify boars that would not mount an

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estrous gilt. To evaluate behavior, individual boars were introduced into a 12 x 16 foot room. After exposure to the room for 5 minutes, an estrous gilt was allowed to enter the room. During the next 15 minutes, sexual behavior was monitored. The number of ano-genital sniffs, nose-to-nose contacts, nosing the flanks, proper mounts and matings were recorded. Ten boars which did not mount an estrous gilt during any of the four weekly test periods were considered to lack libido and were used to test the effect of  $\text{PGF}_{2\alpha}$  on sexual behavior.

Within one week after the boars had failed the libido tests (didn't mount), they were assigned to treatments. Boars were injected intramuscularly with saline or given (i.m.) 10 mg of  $\text{PGF}_{2\alpha}$ <sup>4</sup> one minute before exposure to an estrous gilt, or 25 mg of  $\text{PGF}_{2\alpha}$  at 30 minute before exposure to a gilt. Libido was evaluated as described above.

## Results and Discussion

Treatment with  $\text{PGF}_{2\alpha}$  did not induce proper mounts or mating in boars that had not mounted gilts during four previous weekly exposures to estrous gilts (Table 1). None of the boars mated with a gilt during the test period. All boars exhibited ano-genital sniffs, nose-to-nose contact and nosing of the flank during the test period and the number of times the events occurred was not influenced by treatment with  $\text{PGF}_{2\alpha}$ . Many of the boars scratched their neck and head with the hind foot after treatment with  $\text{PGF}_{2\alpha}$ .

Szurop et al. (1985) found that treatment of young boars with a  $\text{PGF}_{2\alpha}$  analog increased the success rate during the first and second training sessions for semen collection from a dummy, decreasing the reaction time and increasing the number of collections. They also found that libido was restored in old boars that had a loss of libido or a prolonged reaction time. The boars that we used in this trial were identified as lacking libido after four weekly libido tests. In addition the breeds of boars used by Szurop et al. (1985) were Landrace, Large White and Duroc. The response observed in this study, compared with the results of Szurop et al. (1985), could be related to the use of  $\text{PGF}_{2\alpha}$  versus an analog, breeds or to the way the boars were identified to be treated. The boars in our trial definitely lacked the desire and/or ability to mount gilts after four weekly exposures.

We conclude that the treatment of Hampshire boars with  $\text{PGF}_{2\alpha}$ , after lack of mounting during four weekly exposures to estrous gilts, will not enhance mating.

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**Table 1. Influence of treatment of boars with prostaglandin F<sub>2α</sub> on sexual behavior and mating.**

Characteristic	Treatment		
	Control	PG-10	PG-25
Number of boars	4	4	2
Sexual behavior			
Ano-genital sniff, no/exposure	4.0 ± 1.4	7.5 ± 3.2	6.5 ± 4.5
Nose-to-nose, no/exposure	7.2 ± 2.6	9.2 ± 2.4	10.0 ± 4.0
Nosing the flank no/exposure,	4.8 ± 1.6	5.8 ± 2.0	2.0 ± 1.0
Proper mount, no. of boars	0	1	1
Completed mating, no. of boars	0	0	0

### Literature Cited

- Szurop, I. et al. 1985. Stimulation of libido in pubertal and mature boars with prostaglandin F<sub>2α</sub> analogs: Clinical observations. *Zuchthyg* 20:83.