Achieving optimal conditions for boars

Libido or sexual desire of boars depends on the hormonal activity (testosterone) at the level of the central nerve system. There are several factors that can have fundamental impact on this. Only if all these factors are optimised, the boar’s libido is sufficient and not negatively influenced. Below you will find a checklist.....

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Boars failing or delaying to mount the dummy can be a problem, when studs are rushing to get the semen doses out in time. A lack of libido can be assumed, when a well trained boar needs more than 15 minutes to mount the dummy. The sexual behaviour of the boar is coordinated by the central nerve system, based on the presence of sex hormones, secreted by the gonads under the control of the central nerve system itself. The reproductive activity of the modern pig shows certain seasonal changes, a behaviour which is still found very markedly in its wild ancestor.

Climatic stress
This seasonal pattern of the pig’s sexual activity can negatively affect the libido of the boar in summer time, which is associated with low androgen levels. It is often accompanied by an increased number of rejected ejaculates, characterised by decreased motility and an increased rate of morphologically altered spermatozoa (persistent cytoplasmic droplets, detached acrosomes etc.). Hot weather together with high humidity has long been associated with these problems. It is interesting that there seem to be pronounced differences between the boars individual ‘thermal resistance’.

Keeping the boars comfortable, providing extra cooling and air circulation is a tough challenge, because cooling is normally associated with high air flow and/or a significant increase of relative humidity. However, both conditions must be controlled carefully in order to keep the boars within their comfort zone. But hot and humid weather is only one of several possible reasons for lack of libido in boars.

Health
Health and physical problems are often shown by excessive moving of the rear legs during collection, indicating sore rear legs or feet or general weakness of the muscular and/or circulatory system. Infections or even flu may reduce the boar’s interest in mounting the dummy. If there is no doubt that an adequate collecting technique is used to collect the semen, and the boar still shows a low libido, the boar should be examined by a veterinarian to identify the problem.

Age
Young boars (six to ten months of age) must be used with caution and it is recommended to collect them not more than three times within two weeks (intervals of six to seven days). Also adult boars should not be overused. A good collection schedule is two times a week. Three collections per week should be made only for a short period of time even if the physical strength of the boars would allow this schedule. The changes of the composition of seminal plasma associated with too frequent collections which may alter sperm survival during liquid semen preservation are the main reasons to avoid this overuse.

Under-nutrition
Lack of libido due to severe under-nutrition does normally not occur under stud conditions, but it is long known that ‘over-conditioned’ boars being fed an excess of carbohydrates over a longer period of time show a decrease
of libido. Keeping boars in correct body condition is important, not only with respect to the libido of the boar, but also for optimizing sperm production and output. However, low feeding levels applied to maintain a boar in good working condition may become too low in winter. A reduction in semen production and/or semen quality may occur in consequence of the reduced protein and fat retention, when ambient temperature decreases below 20°C.

Psychological problems
Psychological problems can also be important. Keeping boars in isolation during puberty appears to be related to an unsatisfactory mounting behaviour during adolescence. Negative experience during the training period of young boars can also impair normal mounting behaviour. For the operator, who is training the boar, it is very important to have knowledge about the sexual behaviour of boars, and he must be a patient, persistent observer while working and most important, he must be motivated.

Masturbation
Masturbation is observed in some boars, which are not used frequently for semen collection. These are boars, which obviously have a strong sex drive and need to be collected more frequently. If the boar continues with this nonproductive behaviour under his 'normal' collection schedule, it is better to eliminate this boar. His sperm output will continue to suffer in consequence of this excessive loss of sperm reserves.

Poorly-designed dummy
Another reason for refusal to mount is the improper use of or a poorly-designed dummy and/or dummy area. It is a good idea to watch a boar’s behavior when he is mounted on a dummy. If the boar constantly pushes upward with his front legs when resting on the dummy, the dummy may be at an improper height or shape; and the boar may experience a bruised sternum. Especially young boars suffer with homemade dummies that were built too wide (over 30 cm) and cause the animal to spread his shoulder blades. This is quite painful. When this happens, these boars often shift side to side while being collected or put one leg on top of the dummy and raise up trying to release the pressure. The proper height for most boars is to have the dummy raised to the height of the point of his shoulder. An adjustable-height dummy can provide a definite advantage to preventing these problems.

A dummy sow should be properly designed.