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Minimizing Seasonal Infertility Effects in Sow Reproduction

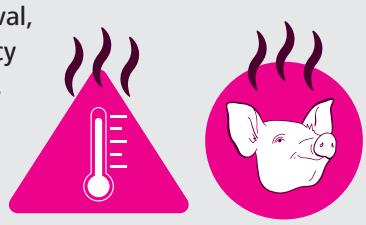
Seasonal infertility is a multifactorial syndrome that can lead to decreased fertility and productivity in sows. The main causes related to this issue are heat stress (high temperatures and large temperature fluctuations) and changes in photoperiod (transition from longer to shorter days from summer to fall). Implementing strategic actions can alleviate the negative effects and optimize reproductive success.

How to minimize the seasonal effects?

- **Improve feed intake:** spread feeding portions throughout the day and focus on feeding during the coolest periods, especially in lactating sows, to prevent high body weight losses. A special lactation diet for summer can be an option for helping with the effects of stress.
- **Daily inspect feeders:** if wet feed is offered, it must be under constant supervision of cleanliness to avoid food fermentation.
- **Constantly and critically identify sows that are not eating.** Mitigate the problem as soon as possible.
- **Actively monitor feed for mycotoxins.**
- Ensure **fresh and clean water:** revise all nipples to guarantee proper water flow.
- **Temperature control:** It is essential to maintain optimal environmental conditions to reduce the effects of heat stress on production, health, and the consequences of sow weight loss, mostly during the lactation period.

Maximum comfortable temperature per sow reproduction stage	
Empty sows	25 °C
Pregnant sows	23 °C
Lactating sows	18 °C
Optimal ambient temperature range: 16-22 °C	

Heat stress compromises oocyte quality, embryo survival, and pregnancy maintenance.



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- Provide **adequate cooling systems** and use proper **ventilation and insulation** to regulate temperature and humidity levels.

- Be extra careful respecting **pen density** and **feeder space per animal.**

- **Heat check, inseminate, and move pregnant sows during the coolest periods of the day.**

- Heat expression may be affected during these seasons, therefore:
  - **Invest in the highest-quality teaser boars to perform heat detection.**
  - **Group sensitive categories (young and returners sows) together in the coolest part of the room.**

- **Intensify pregnancy check to identify empty sows as soon as possible.** This also means actively monitoring gestation pens daily.

- **Light management:** Consistency is the key point with a clear difference between day and night. Implement a lighting program at the breeding area and the gilt development unit:
  - **Light intensity: minimum 200-250 lux at sows' eye level.**
  - **Light schedule: 16h light and 8h dark.**

- **Especially in hot months, follow Topigs Norsvin recommendations on semen handling:**
  - Have **adequate storage** for semen receival so the doses are not subjected to high-temperature fluctuations.
  - Ensure that **only** the number of semen doses needed are taken from the storage unit to the breeding barn and do not return unused semen doses to the unit once breeding is concluded.
  - Prepare an insulated **semen carrier** with clean gel packs at **16-19°C** to keep the temperature steady.

- **Always work with experts:** consult with veterinarians, nutritionists, and reproduction specialists to develop a comprehensive reproductive management plan tailored to your specific operation.

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