

Pig Fact Sheet 15

AUTUMN FERTILITY ISSUES

As the autumn months approach, we often find ourselves fielding questions from our producers regarding changes in reproductive performance on both our indoor and outdoor breeding units. This newsletter aims to explain why these changes are often noted and what we can do to help manage them out on our pig units.

What is happening in autumn?

- Gradual decreasing day length into winter
- Lower light intensity
- Variation in day temperature
- Fluctuation in temperature day to night
- Extra management issues (especially moving to a new site if outdoors)



Day Length and Light Intensity

The altering day length has direct effects on the duration of standing heats and as such the timing of service may need modifying. The optimal time for insemination is within 8 hours before or after ovulation.

Lower light intensity results in a reduction in progesterone - the hormone required to maintain pregnancy

What do you see?

- Reduced farrowing rate - farrowing rates sub optimal between July and September – most probably due to reduced conception rates
- Low litter size - embryonic loss is highest in September and October in sows mated between June and September leading to low litter size. This is due to low blood progesterone.
- Autumn abortion syndrome? Is it due to a combination of management factors? Exact mechanism of failure not known.
- Seasonal boar physiological effects
 - Sperm motility – high summer temps reduce sperm cell motility.
 - Sperm volume / concentration – higher sperm cell concentrations seen from September – February.
 - Testicle weight – lower weight in summer
 - Testosterone production – low libido in summer

CONTROL THE CONTROLLABLE!

Identify and assess the known risk factors in the first quarter of the year and put in place appropriate intervention.

Service:

- Abrupt weaning of sows in order to enhance post-weaning oestrus – no multi-suckling
- Prevent affect of temperature variation/fluctuation (inc. wind) on semen quality – review your semen storage.
- Provide optimal environment within service house / tent for the operator and sow– particularly lighting for darker days and consistent temperature, service tent layout esp. batch farrowing units
- Lighting routines if possible – adequate intensity and duration
- Use of white wash in service area to improve available light
- Consider scanning at 4 and 7 weeks post service to detect returns early
- Avoid unnecessary stress post service – no moving / mixing during implantation (days 5-30)
- Improve boar contact following service and for the first 35 days of pregnancy – particularly in gilts
- Increase service targets by 10-15% during the periods of anticipated low conception rates – ask your scanner man for last years graphs
- If natural serving consider using top up AI during difficult periods
- Modify timing of AI – oestrus planning in Autumn, Spring and Summer

Nutrition

- Increase feeding to winter levels (3.25-3.5kg base rate, lift feed levels three weeks before farrowing)
- FEED TO CONDITION AT ALL TIMES
- Use back fat scanning to establish true condition
- New crop cereal – consider use of added enzymes to help with digestion
- Bin hygiene – consider use of mycotoxin binders particularly in wet years

Health

- Increase control of Parvovirus – recommend annual vaccination.
- If high levels of abortion noted consider blood sampling and sampling of aborted material
- “Common” diseases resulting in fertility loss; Parvo, Lepto, PRRS, Flu, (Erysipelas, Chlamydia and others)

Summary

- Evidence for year on year seasonal effects on pig reproduction is overwhelming.
- It should be possible to mitigate the potential effects of season through careful risk assessment and appropriate management.
- Despite the impact of season, if losses are higher than “usual”, it may still be worth asking the question “is there something going through the herd?”