

BRIEF NOTES ON RETURNS TO SERVICE

The normal breeding (oestrus) cycle of the sow is 18-24 days, with the great majority being 21 days. Returns to service are classed as 'regular' or 'normal' when they occur at intervals of 21 days \pm 2 or multiples thereof and 'irregular' or 'abnormal' when they occur at any other time.

Regular Returns

A regular return suggests one of the following problems:

- The sow was not served or inseminated.
- The sow was served or inseminated, but at the wrong time to achieve conception.
- The boar was infertile at the time of service or the semen was dead.
- The sow was not served or inseminated properly in that a 'lock' in the sow's cervix was not achieved.
- There was an imbalance of hormones in the sow caused by cystic ovaries, seasonal infertility, certain stress factors and so on.
- The sow was suffering from infection of the reproductive organs or a generalised disease such as PRRS.

There are broadly two categories of regular returns to service - early (18 - 21 days) and late (22 - 24 days). The early regular returns indicate a complete failure whilst the late regular returns indicate that fertilisation might have taken place but not enough live embryos were present at the time of implantation.

Irregular Returns

An irregular return to service suggests that fertilisation has occurred but the developing embryos have died before pregnancy has been fully established. The most likely causes of irregular returns are:

- Death of embryos caused by:
 - uterine infections of the sow - endometritis
 - generalised infections of the sow which spread to the embryos
 - high temperatures (both climatic and as a result of fever) and sunburn
 - poor nutrition
 - fertilisation of eggs was too late
- Failure of implantation and maintenance of pregnancy
 - As above
 - stress such as fighting, bullying, etc. leading to high circulating cortisol levels
 - seasonal infertility (more common outdoors)

Most irregular returns occur from 24 to 36 days, but sometimes a much longer period ensues. This is because a phantom pregnancy can develop when the sow's hormonal system has not recognised that the developing foetuses have died. Live foetuses release a hormone 'signal' at around 11 weeks of pregnancy. It is only then, in the absence of the 'signal', that the sow's hormone system recognises that she is not actually pregnant and she returns.

Some tips to reduce or avoid returns to service are:

- Make sure lactation is longer than 3 weeks.
- Ensure high levels of feed intake and water intake during lactation.
- Maintain a suckling litter size of at least 8 piglets.
- Feed sows liberally between weaning and service.
- Avoid stress at weaning - particularly important where bullying may occur and where gilts or small sows are mixed with large sows.
- Maintain good light levels for 16 hours per day during lactation and in the service area (indoor units)
- Make sure that sows are standing "rock-solid" when they are served.
- Make sure that a "lock" is achieved when inseminating
- Try to achieve 95% of matings within 6 days of weaning.
- Maintain good boar contact - sight, sound, touch and smell - during the first 3-4 weeks of pregnancy.
- Check fertility of boars from time to time - single matings, semen samples and so on.
- In summer months, carry out inseminations in the coolest times of the day
- Consider culling sows that have a vulval discharge and then return to service.

Seek veterinary assistance if there is any suspicion of the presence of infectious disease in the herd or if returns to service occur more frequently than 10%. Signs of reproductive disease include both regular and irregular returns to service, discharges, abortions, phantom pregnancies, low viability and high numbers of stillbirths and mummified pigs.

Wallows & Shades

A lot of herds are still without wallows and shades. Remember that good, muddy wallows and shades with straw to encourage sows to lie under are **vital to reduce the effects of seasonal infertility.**