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**Pregnancy diagnosis: how an effective programme can improve herd performance**

Non-productive sows are those animals that are either not lactating or not pregnant. These animals decrease the reproductive efficiency of a herd by:

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- Reducing numbers farrowed per batch
- Reducing number of piglets produced per batch
- Requiring investment in feed, labour etc. with no return
- Occupying space in the dry sow accommodation
- Reducing farrowing index (litters/sow/year)
- Increasing empty/wasted days per litter

An effective pregnancy diagnosis programme can improve herd performance by:

- Minimising non-productive days and associated costs – approximately £2.50/sow/empty day
- Maintaining the correct number of sows/gilts for farrowing accommodation
- Early identification of sows/gilts requiring rebreeding or culling
- Avoiding unintentional culling of pregnant females
- Identifying reproductive failures – when and how many affected
- Enabling prediction of future pig numbers and pig flow

Early identification of non-pregnant sows and gilts is the key to maintaining and improving herd productivity. This can be achieved using 1) oestrus detection; 2) ultrasound scanning (Doppler/Real time).

Oestrus detection

This method relies on good stockmanship and daily boar exposure to detect oestrus. Failure to return to oestrus is interpreted as confirmation of conception. To work accurately this system requires:

- Trained staff
- Adequate boar numbers
- Facilities that enable daily boar contact
- Recording of heats detected
- Actions to be taken if oestrus is observed

This system can work well and is relatively inexpensive but is labour intensive, reliant on good boar exposure, open to misinterpretation if sows/gilts have reproductive issues e.g. cystic ovaries, pseudo pregnancy, or are not cycling.

Ultrasound scanning

1. Doppler

This detects foetal heartbeat and/or blood flow in umbilical and uterine blood vessels and creates an audible sound for the operator. This method can be used from 30 days post service. It requires a skilled operator and a reasonably quiet environment to have the best accuracy. False positive pregnancy results can be caused when blood flow to the uterus is increased for reasons other than pregnancy e.g. pseudo pregnancy, oestrus and uterine inflammation. It can also be tough on hearing after long term use!

2. Real-time ultrasound

This technique enables visualisation of not only pregnant and non-pregnant uteri but also ovarian structures; therefore it is useful for both pregnancy diagnosis and more detailed investigation of reproductive issues.

Pregnancy can be identified from 21-25 days post service and foetal skeletons can be observed from 65 days post service.

Identification of early pregnancies can be a quick process with experienced operators taking only 1-2 minutes per pig.

This technique requires the appropriate scanning equipment and suitable training to achieve the best results.

For an ultrasound pregnancy diagnosis programme it is advised to scan first at 4 weeks post service (after 30 days for Doppler) and recheck any unconfirmed pregnancies at 7 weeks post service. It is important to remember that reabsorption can take place up to 35 days post service therefore continued vigilance for return to oestrus is necessary. Any animals previously scanned in pig that appear to return to oestrus, or are suspected of aborting a litter, should be rescanned immediately to minimise additional wasted days.

George Vet Group Scanning Services

With acquisition of new state-of-the-art equipment, including, heads-up viewing goggles the Pig Team are developing a service, available to all clients, which will provide facilities for Real Time ultrasound scanning for pregnancy diagnosis and as part of investigations into reproductive failure. We are also able to arrange on and off-farm staff training for RT-ultrasound scanning. Please contact the office or speak to your vet to discuss how this service can be tailored for the needs of your unit.



eMB

We are nearing the end of the second quarter of 2017 so there are only 4 months until the new Red Tractor requirement for medicines recording using eMB comes into force. Before 15<sup>th</sup> Novemebr 2017 all antimicrobial usage data from 1<sup>st</sup> April 2017 will need to be on the eMB database ready to be reviewed at each quarterly veterinary visit. Your vet can only view your eMB usage data if you have specifically given permission via your AHDB PigHub login, providing this permission would really help with the quarterly review process.

If you have any questions regarding eMB please contact Kate Mellor your local AHDB Pork KE Manager or the pig office.