



RED DEER IN A FARM SYSTEM

Scanning

Why undertake pregnancy diagnosis in deer?

The principal reason for conducting pregnancy diagnosis in farmed deer herds is to make informed decisions about hind culling. Farmers generally prefer to cull hinds primarily on reproductive productivity. Non-pregnant ('dry') hinds are often drafted for slaughter before the onset of winter, thus reducing herd feeding costs on non-productive animals.

However, pregnancy diagnosis can also serve other purposes:

- ensuring that in-calf sale hinds are indeed pregnant;
- measuring the success of artificial insemination (AI); and
- allocation of hinds to calving groups based on expected calving date. Repeated scanning can be used to check for abortions.

How do you confirm pregnancy in hinds?

The most reliable method of pregnancy diagnosis in hinds is real-time ultrasound scanning. This requires a specialist operator with the appropriate equipment. Equipment for visualising the pregnancy includes rectal probes (mainly for early pregnancy detection) and flank scanners (mainly for later pregnancy detection).

What is foetal ageing?

Foetal ageing is the assignment of an estimated age of a foetus (in days) at the time of ultrasound scanning within the first trimester (within the first 2-3 months) of pregnancy. During this period the foetus undergoes a uniform growth and development pathway that can be easily visualised through real-time ultrasonography. With practice and regular calibration, ultrasound scanners can assess foetal age from the real-time images of the foetus and associated tissues of pregnancy.

Checking the success of AI programmes

Although ultrasound scanning does not influence the success of AI programmes, it does give an early measure of success and facilitates future herd management (such as drafting of non-conceiving hinds). All deer AI programmes involve the artificial synchronisation of hind oestrus (heat) for fixed-time insemination. Hinds that fail to conceive to AI will generally return to oestrus and be mated to the back-up stag 18-21 days later. This time interval between AI conception and follow-up mating is crucial to the use of ultrasound scanning to assess the effectiveness of the AI. Scanning is normally performed 40-60 days after AI, with success of AI being based on the presence of an appropriately aged foetus. Hinds conceiving to back-up stags will either be not detectably pregnant (i.e. if pregnant the pregnancy is too young to detect by ultrasound: <20 days) or there will be a very clear age gap of about 20 days.