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*There is an old curse that says 'May you live in interesting times' and it definitely applies to our current situation.*

*The world is at a standstill, but life on the farm continues at its usual pace. The cows still need milking, the eggs still need collecting, the sheep still need shearing and the health and welfare of the animals still need taking care of.*

*The subjects in this issue reflect the continuing circle of life on the farm. We take a look at synchronised breeding and the benefits to your bottom line. Our second article is pre-tupping advice to help you get the best out of your rams and ewes.*

*Please let us know what you think about the topics we have covered in this issue or if there is something you would like us to cover in upcoming newsletters.*

*Drop us a line at [farmandequine@ardenehouse.co.uk](mailto:farmandequine@ardenehouse.co.uk).*

*Best wishes,*

*The team at **Ardene House Vet Practice***

## In this issue:



### Benefits of Synchronised Breeding in Cattle

What does synchronised breeding and artificial insemination involve? We take a look at how it can help on your farm.



### Pre-Tupping Advice

A good strategic approach pre-tupping will ensure success when farmers are trying to get their ewes in lamb. To produce a healthy lamb crop next spring, we need both the ewes and the rams to be in top condition.

## Benefits of Synchronised Breeding in Cattle - Understanding AI



Continued 

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## Benefits of Synchronised Breeding in Cattle

The use of artificial insemination (AI) in dairy herds across the UK is common practice, but it is still relatively rare in beef herds. This could be due to the fact that accurate heat detection is needed, along with additional animal handling and perceived increase costs. But synchronised breeding has lots of benefits. Let's take a look at those.

### Benefits of synchronisation and AI:

- It allows access to quality sires with Estimated Breeding Value (EBV) data – this allows selection of bulls with genetic traits aimed at producing quality heifer replacements and quality calves for beef production. It can even help to reduce calving difficulties
- It reduces the risk of buying in disease which is associated with bull purchase and natural service. Examples of diseases that can be bought in or transmitted by the bull include bovine viral diarrhoea virus (BVD), leptospirosis, infectious bovine rhinotracheitis (IBR), tuberculosis (TB) and Johne disease
- It reduces the associated risk of housing a bull on farm
- It helps ensure an increase in the percentage of cows calving in the first 21 days of the calving period because a group of cows are mated on day 1 of the breeding period. This leads to a more valuable calf at weaning/sale because of its increased weight from being older



**Early pregnancy diagnosis of non-pregnant females is vital to maximise success and reduce the time between services.**

## Costs of Keeping a Bull

The cost of keeping a reasonable quality stock bull on farm is estimated to be up to £1600 per year (NADIS). This is based on an average longevity of 4 working years, depreciation, fixed and variable costs but, doesn't account for any veterinary costs such as vaccinations, health checking and any diseases encountered.

With good planning and management it is possible to get 1st service AI pregnancy rates of 65% or higher but, this is dependent on a number of factors including good nutritional management, control of infectious/parasitic diseases and attention to detail.

### Successful Synchronisation

- Selected animals need to have the correct body condition score (BCS) of 2.3-3 at service
- Constant rations being fed with the correct mineral balance allowing a rising plane of nutrition
- Allow cattle to be kept in a stable social group for at least 6 weeks pre and post-service to reduce any impacts of bullying or stress
- Maiden heifers should be at least 65% adult body weight and need serving by 15 months of age (if aiming to calve at 2 years old)
- Adult cows should be at least 45-50 days calved
- Avoid any other management tasks at or around the time of synchronisation – this includes vaccinations and parasite treatments, which should be completed prior to the starting the synchronisation protocol

Conception rates (CR) vary with the different programmes available, along with the factors above. A CR of 50% is readily available, but reports range from 30-75%. Heifers tend to have better CR compared with cows, but it is important to ensure they are cycling before entering any programme. Cows and heifers can be put onto a repeat synchronisation protocol if they fail to conceive at the first service but, bear in mind this comes with increased handling and an increased cost.

Early pregnancy diagnosis of non-pregnant females is vital to maximise success and reduce the time between services. It might be worth asking us to come and check if the cows are pregnant 35 days after the AI has occurred to help you spot animals that need additional help.

There are lots of different synchronisation protocols. We can help you choose the right one for you and your farm. An example protocol involves us performing a pre-breeding check and, if all is ok, we will insert a progesterone releasing intravaginal implant. This will be removed 7-9 days later. The implant is normally used in combination with prostaglandin injection and, possibly, other fertility hormones. Generally, fixed-time AI is applicable with synchronisation protocols (negating the need for heat detection), allowing the AI technician to have just 1 or 2 visits to inseminate multiple animals.

## DIY AI

Many dairy farmers perform DIY AI. This is not a widespread practice on beef units but, it may make synchronisation programmes more affordable and workable. Consideration should be taken regarding DIY AI. Most beef producers will not be routinely performing AI and so there may be an affect on conception rates here.

As with all on-farm management procedures, good handling facilities are vital. This includes appropriate farm staff to help with animal handling, along with a good crush (preferably undercover!) and a table to place medicines and devices on to help with cleanliness. There may be a large number of cows all calving at a similar time and, therefore, suitable calving pens will need to be available at calving time. Because synchronised breeding is planned, you will be able to make sure you have all the staff and facilities you need come calving time.

**Give us a call if you would like advice or help to set up a synchronised breeding protocol on your farm.**



## Pre-Tupping Advice - Increasing fertility

### Pre-Tupping Advice

A good strategic approach pre-tupping will ensure success when farmers are trying to get their ewes in lamb. To produce a healthy lamb crop next spring, we need both the ewes and the rams to be in top condition. It takes two to tango!

The performance, health and welfare of all breeding stock, home bred or bought-in, must be optimised. The target conception rate is >90 per cent ewes pregnant within the first breeding cycle.

The most common cause of poor conception rates is the ram, rather than infectious disease(s).

### Vaccinations

Timely vaccinations pre-tupping are also an important step to ensure a successful lambing and maximise lambs produced per ewe.

Toxoplasmosis can lead to stillbirths, foetal death, or weak lambs that can die soon after birth. Enzootic abortion will most commonly lead to abortion in the last few weeks of pregnancy however, similar to toxoplasmosis, it can occasionally lead to weak, premature lambs or still births. Best practice is to protect your flock by vaccinating in year 1 all the breeding flock. Consequently, in the years to come you only vaccinate the replacements. Vaccines for toxoplasmosis and enzootic abortion must be administered at least four weeks prior to tupping.

Both rams and ewes should be vaccinated against Clostridial diseases, Pasteurella and Louping Ill (in affected areas) at least 10-12 weeks before tupping. Replacement or retained ewes will require two doses, four to six weeks apart and a booster pre-lambing. Do not use the abortion vaccines at the same time as the Clostridial vaccines.

Give us a call to discuss what vaccines you need on your farm.

### Parasite Strategy

Do worm and fluke egg counts on faecal samples at least 10 weeks pre-tupping on ewes, rams and all bought-in replacements. Where necessary, treat accordingly with an appropriate wormer and/or fluker.

Check your animals' fleeces thoroughly for scab and other ecto-parasites. Treat accordingly. Scab has a big impact on fertility and is, in many instances, under-diagnosed and not effectively treated.

Make sure you check with us about the effectiveness of the anthelmintic product you are using in your flock and when you should be using it. There are lots of products on the market, quite a few with the same ingredient but, just a different name. Anthelmintic resistancy is becoming an ever increasing problem, so call us for advice.



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## Ewes

Ewe body condition score (BCS) is useful for assessing that their diet is good enough at key stages in the production cycle. It should be carried out regularly and changes made to management, based on the results. Monitoring and managing body condition score (BCS) is the key element to a successful conception rate.

Research suggests that ewes eating a diet high in protein and energy, in the weeks leading up to tugging (known as flushing), will achieve higher pregnancy percentages. However, there appears to be a limit to the positive effect of doing this, depending on the ewe's current body condition. Flushing ewes at BCS 2 and below or BCS 4 and above doesn't seem to improve conception rate. Flushing has the biggest positive impact on ewes between BCS 2 and 4.

## Rams

It is vital to check the ram's feet, testicles, condition score and general health. You should be doing this at least eight to ten weeks prior to breeding. Timely intervention is essential.

The quality of semen produced from a ram today will reflect the condition the ram was in approximately seven weeks ago. It is also important to purchase rams early to allow them as long as possible on farm before mating begins. This will help them to settle and minimise the risk of any stress caused by sale or through change of diet. Stress can affect the subsequent fertility of the ram.

Rams should be in good condition (BCS 3.5 – 4) going out to your ewes. It is quick and easy to make body condition score (BCS) assessments

- Place a hand over and around the backbone and loin area behind the last rib to feel the amount of fat cover and muscle mass
- Feel for the sharpness of the spinous and transverse processes coming out from the spine
- The scoring scale is 1 to 5, with 1 being thin and 5 being very fat
- Half scores such as 2.5 or 3.5 can be applied
- Use the same hand to BCS on all animals

Testicles should be even, firm and of normal size (at least 32cm circumference for ram lambs and 34cm for older rams). Testicle size is important. If you use rams with small testicles, it will drop the fertility rate in later generations. Foot care is essential to maintain ram soundness. Footrot is the most common cause of lameness in rams. Prompt detection, treatment and regular footbathing can have an important role in prevention of footrot. Having good facilities, with a dry stand for the sheep after exiting the footbath is good practice. Good confirmation and a healthy hoof are key to ensuring foot soundness in the next crop of lambs. It's also important to check that the ram hasn't a broken mouth or abscesses around his molars.



## Culling

Rigorous culling is vital for raising flock performance and improving profitability. No ewe should be kept if it is unlikely to rear lambs next season. Records and accurate identification are the key to successful culling.

Cull for:

- Poor performance – barren/unproductive, poor body condition, a history of cervical prolapse, poor mothering ability, lack of milk
- Structural integrity – too old or broken-mouthed, poor teat conformation
- Disease – mastitis, lameness, respiratory

**Routine vaccinations and anthelmintic treatments apply equally to rams as to the ewe flock.**

**We would be happy to have a chat with you about pre-tugging and what is a good strategy for your farm. Give us a call.**