ARDENE HOUSE
VET PRACTICE LTD

Farm Newsletter
June 2020

Tel: 01224 740700

Services update

In-house faecal testing

We are now able to offer in-house faecal testing for roundworm eggs, liver fluke eggs, and lungworm larvae for cattle, sheep, goats, and pigs. This allows us to provide our clients with results and personalized advice within 24 hours.

Sheep/calf pen

Our new sheep/calf pen has been built! This pen allows safe, secure access to the hospital, such as for CT scanning.

This pen is dedicated to our farm animal patients, with concrete flooring for easy and thorough disinfection between patients. Although the pen's location was chosen for access to our CT scanner, this pen can be used for other small farm patients if needed.

Premium Sheep and Goat Health Scheme update

SRUC

In light of COVID-19, SRUC has extended members' current MV and EAE status until services return to normal, at which time an additional 3 month window will be granted to catch up with delayed tests.

However, we understand that there are often limited windows of opportunity where the whole flock can be gathered to do blood sampling for PSGHS. If you need to complete your PSGHS testing soon but are concerned it will not be possible do it at a later date this summer, please contact us to discuss a visit.

In this issue:

If you would like to receive our newsletters by email please send an email to farmandequine@ardenehouse.co.uk

You can find previous newsletters on our website www.ardenehouse.co.uk

24 Hour Emergency Service 01224 740700

Getting late calvers back on track: Tightening next year's calving period

For many beef farms, spring calving is ideally completed over as short a period as possible, typically over 9 weeks. If calving extends beyond the 9 week interval and into summer, it can be difficult to get the herd back on track to calve again next spring. And often, calving instead ends up later and later each year. Some times, the cause of the disruption in calving is obvious - for example, if a bull became injured or died in the middle of breeding season and it took a week or two to find a new bull. However, the cause may be more insidious, and the presence of the problem is only apparent by a wide calving interval.

Finding the cause of a long calving period

If you are unsure of the cause of your herd's prolonged calving, then creating a graph of when calves were born can help visualize your farm's conception rate and identify patterns which may help determine the root cause of the extended calving interval.

For example, if your calving period is consistently elongated, this may be explained by a poor conception rate for the entirety of the mating period [fig 1]. "Conception rate" is the number of cows impregnated from a single service by a bull or by artificial insemination. An ideal conception rate for fertile beef cattle is 60% or greater, meaning 60% of cows should become pregnant each heat cycle. Achieving this conception rate requires both the cow and bull to be in good health with good fertility.

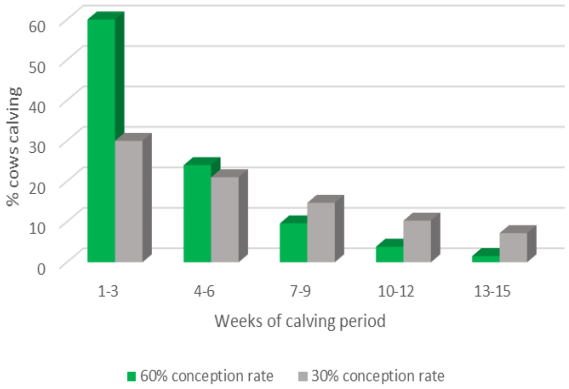


Figure 1: Comparison of a calving period from a mating period with a 60% conception rate, with a calving period from a mating period with 30% conception rate

Identifying bull subfertility

A common cause of a decreased conception rate is subfertile bulls. If a bull is infertile, then none of the cows the bull was placed with would be pregnant. However, bulls may instead be subfertile - where the bull is able to get some cows pregnant, but not as many as quickly as he is expected to.

When a bull is subfertile, this can significantly elongate the calving period as he is only able to get a smaller fraction of the cows pregnant during each 3 week heat cycle. If you rotate multiple bulls with a group of cows, then a subfertile bull may present as an uneven calving period; For example, if a subfertile bull was in with the cows during the first 6 weeks of the mating period and a fertile bull from 7 weeks, then the start of the calving period would be slow with an increase at 7 weeks [fig 2].

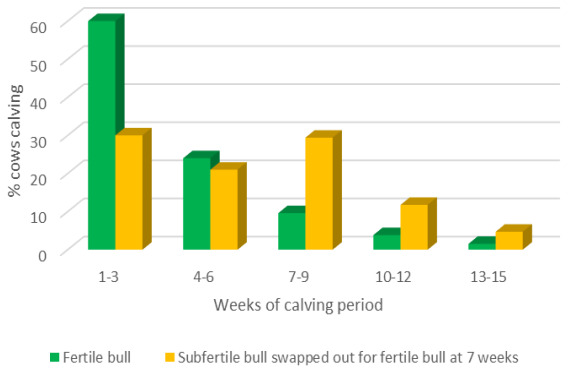


Figure 2: Comparison of a calving period from a fertile bull with a 60% conception rate, with a calving period from a subfertile bull with 30% conception rate swapped out for a fertile bull with a 60% conception rate at week 7

An infertile or subfertile bull can be identified by conducting a breeding soundness exam (BSE). During a BSE, the bull is examined to ensure there are no signs general illness, poor conformation, or physical defects in the testes or glands. A sample of semen is then collected, which is examined under a microscope to determine how many sperm are alive, if their movement is progressive (i.e. moving in a straight line, or moving in circles), and if there are any defects in the sperm that may affect their ability to successfully fertilize an egg.

It is also important to watch the bulls work to ensure they are physically able to breed since lameness, lack of libido, or deformity of the penis causing a failure of successful mating may also result in decreased conception rate even if there are no signs of defective sperm. It is also necessary to have realistic expectations of the bull: If the bull is expected to impregnate more cows than he is physically capable of breeding, then naturally the conception rate will be low. A young, inexperienced bull can be expected to breed 15-20 cows during one breeding period, while a mature bull can typically be expected to breed with 30 cows.

Getting late calvers back on track (2/2)

Optimizing cow fertility

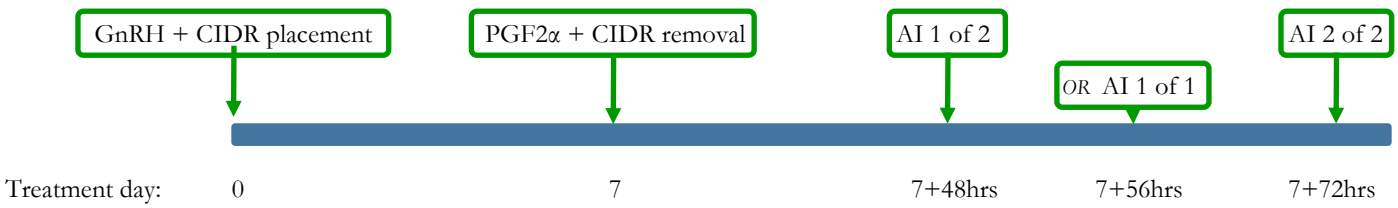
First and foremost, a cow must be healthy enough to begin the oestrus cycle again after calving, and then healthy enough to conceive and maintain the pregnancy. After cows give birth, they go through a normal period of anoestrus, where their ovaries are not cycling and thus the cow is unable to become pregnant. In a healthy cow, this anoestrus period typically lasts about 8 weeks. In order for a cow to calve again within one year with a gestation period of 283 days, then there is only a narrow window of 26 days for her to become pregnant again. However, if a cow is very thin after calving or becomes affected by disease such as liver fluke, then the cow will not have enough energy available to move out of the anoestrus period and begin cycling again, and the break between calving and cycling will last longer than the normal 8 weeks.

Therefore, cow nutrition in particular is important to optimizing fertility. Proper nutrition is required throughout the year and not just immediately after calving; If a cow is too thin at calving, feeding her up during the 8 week anoestrus period will not be sufficient to bring her to health in time, and her anoestrus period will extend beyond 8 weeks. Instead, the simplest way to ensure the cow will be in proper condition by calving time is by monitoring the cow's body condition score (BCS) 6-8 weeks before calving; If the cows are found to be too thin at 6-8 weeks before calving, then there is time for their nutrition to be modified so that they are at an optimum weight at calving.

Moving a healthy cow forward: Cow synchronization

Because there is such a narrow window for a cow to conceive again in order to calve in a year, it can be difficult to move a cow earlier in the calving period the following year. One way of optimizing the mating period and increasimg the likelihood of a cow getting back in calf as soon as possible is to put her on a synchronization programme, which uses hormones to induce ovulation. This can jump start a cow's return to oestrus after her normal anoestrus period. It also allows for more accurate timing for artificial insemination as we can predict when the cow will go into heat. The cow can also be left with a bull for natural service, or she can be served with artificial insemination (AI). AI comes with the advantage of knowing that the cow has indeed been served.

The synchronization programme used by Ardene House Vets involves 2 visits one week apart: The first visit involves an injection of a hormone called GnRH and placement of a CIDR vaginal hormone insert, and the second visit is to remove the CIDR and inject with a hormone called PGF2α. If the cow is healthy and able to cycle, then she will enter heat and ovulate within the following 72 hours. To maximize the chances of insemination being successful, the cow can be served via AI at both 48 hours and 72 hours after the second vet visit. If she is to be served only once, then AI should be scheduled 56 hours after the second vet visit.



While it is often not economical or practical to do such a synchronization on all cows in a beef herd, synchronization can be selected for the later calving cows to bring them back into calf as soon as possible to bring her next calving date closer to the rest of the group. This synchronization programme can also be used in heifers in order to give them the best chance to calve together early in the calving period.

It is important to note that these synchronization programmes cannot force a cow to cycle if she is not able to do so on her own: In order for a cow to begin cycling, either on her own or through a synchronization programme, the cow must be healthy enough for her body to have the available energy to begin cycling again.

If you are interested in the synchronization programme for some of your late calvers, or you would like to discuss investigating an elongated calving period, please contact us. We can incorporate the discussion into your annual herd health plan to optimize your farm production across the entire year.

Flock Health Club 2020

Ardene House is proud to offer membership to our Flock Health Club to any and all clients with sheep, no matter if you have 1 sheep or 1000! By joining, you will get discounted benefits to maximize the health of your flock.

For a single annual fee , benefits included with 2020 membership are:

- Faecal worm egg counts + liver fluke faecal analysis

- 2 pre-dosing and 2 post-dosing pooled samples, for a total of up to 4 tests
- 10 faecal pots per test included

- Reduced visit fees for blood sampling for trace minerals (lab fee not included) **and subsidized EAE/ toxoplasmosis monitoring**

- Sheep CT scanning: scan 1, get 1 free

If you are interested in joining this year or have any queries, please phone 01224 740700 and ask to speak with Rebecca or Marta.

Flock Health Club Calendar

	Worms and fluke faecal testing	Trace mineral blood sampling	EAE and toxoplasmosis blood sampling
January			
February			✓ 1-3 months post-lambing
March			
April	✓	✓ Ewes	
May			
June			
July			
August	✓	✓ Lambs	
September			
October			
November			
December			