



RED DEER IN A FARM SYSTEM

Calving

Farmed red deer early summer, from May to Mid June. Most hinds within the herd will complete calving within a 3-week period, although there will typically be a few hinds conceiving at later oestrous cycles that calve over the next few weeks.

Peri-natal (around the time of birth) and post-natal (>24 hours after birth) mortality of calves is the single biggest source of reproductive wastage occurring on deer farms. While it is recognised that there will always be losses around calving, there are ways to reduce overall calf mortality...often this just requires simple on-farm changes in management and calving environments.

Why do hinds need a good calving environment?

A significant proportion of calf losses occur because the calving environment is suboptimal for the needs of all individuals within the herd...this relates to the specific behaviour of hinds around the birthing process.

Hinds approaching birth seek isolation from their herd-mates and actively search for a suitable calving site. Such search behaviour is often seen as fence-line pacing starting 24-48 hours before birthing starts. Typically the hind will seek an elevated position with low ground cover as the preferred calving site (e.g. tussock slopes)...this affords good visualisation of the surrounding terrain as well as shelter for the calf.

When such calving environments are in short supply there can be considerable competition between hinds for prime sites, leading to conflicts in which the dominant hinds prevail...this is especially the case when several hinds are at the same pre-calving stage. Sub-ordinate hinds that fail to secure a good calving site often become stressed...and this can lead to a disrupted birthing process, three consequences of which are:

1. The hind fails to adequately bond with its calf within the first few hours of birth, leading to calf abandonment. This results in the calf dying of starvation and dehydration 2-3 days later...typically wandering around the paddock crying out for mum.
2. The actual birthing process is disrupted, forcing the agitated hind to move around while calving. This can lead to a difficult birthing process that causes fatal damage to the newborn (often stillborn) calf...termed 'dystocia'. Typically affected calves are dead at birth or die within a few hours.
3. In some cases the birthing goes to plan but the calf has insufficient cover in which to hide...especially if it is disturbed (e.g. by other hinds seeking a good birthing site). Such calves tend to wander in search of suitable cover, and can become the victims of misadventure...especially getting lost outside the birth paddock or getting entangled in fences.

What is the ideal calving environment?

Consideration and planning to providing hinds better calving paddocks can pay big dividends by improving calf survival. Key points are as follows:

1. Keep hind stocking rates reasonably low (<8 per ha) over calving to minimise competition over the birthing period. If the hinds are likely to have a highly synchronised calving (e.g. from artificial insemination programmes) it is important to further reduce the stocking rate to <4 hinds per ha until the birthing period is finished.
2. Design calving paddocks around the provision of suitable cover particularly provision of shade for calving, calf security and protection from the weather. Sometimes these may seem to be the 'roughest' paddocks due to the presence of shrubs, tussock, rocks, gulleys, etc, but actually contain ideal birthing sites. However, there is also a need to provide lactating hinds with high-quality pasture to optimise calf growth...if this is compromised by the use of low-productivity 'rough' land for calving, a strategy is required to give hinds access to better pastures after birth (e.g. as simple as opening the gate to a better paddock next door).
3. If 'rough' calving paddocks are not available (e.g. on intensive lowland farms) it may be necessary to create calving sites and calf hide-out sites. For example, leaving un-mown or un-grazed strips of long grass in the middle of the intended calving paddocks can provide a better calving environment. However, it is recommended that such strips should be sited away from fence-lines to reduce the temptation for calves to go through fences.
4. Minimise outside disturbance during and immediately after calving (e.g. no dogs in the calving paddock). Such disturbances can be particularly devastating when hinds are birthing...if they prematurely leave the newborn calf there is a danger that the maternal bonding process will be disrupted.



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Assisted births

What is 'dystocia'?

Sometimes hinds experience difficulties during birthing which can lead to an inability to expel the calf...this is termed 'dystocia'. Such severe cases of dystocia are not as common now as they were at the start of deer farming in the 70's and early 80's. This can also be linked to hinds being over fat during the gestation period.

How do I detect problem calvings?

Calving should be observed discretely from a distance, but preferably from a vehicle and position that the hinds are comfortable with. There are often signs that animals are in distress around calving, including constant fence-pacing (e.g. beyond two hours) and in many cases, the prolonged appearance of part of the calf (e.g. head or legs) sticking out without delivery progressing.

When do I intervene?

The sight of a distressed hind experiencing a difficult birth can be quite disturbing but it is difficult to know when to intervene and assist with the removal of the stuck calf. Firstly, in most cases of a difficult birth the hind will actually eventually expel the calf naturally, but often with the loss of the calf. Secondly, in removing the hind from the herd for yarding there is a risk of disturbing other calving hinds. Thirdly, once assistance has been performed the hind is unlikely to bond with the calf if it is still alive...leaving you with a calf to hand-rear.

In most cases where assistance needs to be given, the prime motivation is to save the hind and the survival of the calf is secondary (in many cases the calf will already be dead). Fortunately, distressed hinds will often separate from the rest of the herd, and it is usually possible to direct her out of the calving paddock simply by opening a gate to let her out on her own accord...this avoids disturbing the rest of the herd. Once in the handling system the hind should be settled into a darkened room and left to rest for a few minutes. At this stage a decision needs to be made as to whether the calf extraction can be done easily by simply applying gentle torsion to the calf (as can be the case in many backwards, rear feet presentations) or veterinary assistance is required due to a difficult calf presentation (e.g. mal-presentation of front feet) or a decomposing dead calf. Preferably discuss with your vet before you intervene on your own, and you should not intervene for much longer than twenty minutes.

1. In the case of the presentation of a live calf after a difficult delivery it may occasionally be possible to get the hind to accept it by leaving them together in a quiet pen for a few hours. However, highly stressed hinds seldom accept their calves.
2. Following calf extraction the hind may need antibiotic treatment, and then returned to pasture.
3. The question then remains as to her fate. Will she be prone to further difficult calvings? Most farmers today would mark such a hind for eventual culling.

Post calving environment

Calves are heavily reliant on the lactational output of their dams for their nutrition over their first 3-4 months of life.

The quality of lactation influences pre-weaning calf growth, the period of greatest growth potential in the animal's life.

If lactational outputs are compromised through poor nutrition, this will have consequences not only on calf weaning weights but can also influence other aspect of their performance throughout life. For example, young hinds may fail to enter puberty as 16 month-old animals because of long-term effects of poor pre-weaning growth on puberty live-weight thresholds.

There is sometimes a compromise between providing hinds with a good calving environment (i.e. plenty of rank pasture cover for birthing) and subsequently providing hinds good nutritional environment to support optimal lactation (i.e. shorter highly palatable and digestible pasture). However, with proactive management there are generally ways around this issue. Rank pasture is good for the calf but not the hind, so a compromise is to leave strips of rank pasture, but maintain the rest of the paddock in a good vegetative state for high quality pasture for the hind.

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After about two weeks from birth calves will generally tag alongside mum rather than hide out. It is at this stage that hinds and calves can be safely moved to new paddocks. However, before doing so ensure that all hinds have completed calving and that all calves are at foot: it is possible that late-born calves are still hiding out and may be left behind.

Moving hinds with calves at foot

The best approach to moving hinds and calves is to simply leave the gates open to the new paddock and leave the deer to find their way there. Hinds will then quietly guide their calves through unfamiliar gateways. However, before shutting the gates, check to ensure there are no calves left behind in the calving paddock.

After a few moves, calves will become accustomed to gateways and the process of rotating hinds and calves around paddocks becomes easier and quicker. In this way, optimum feeding management can be implemented to ensure the hind lactates well and that the calf has every chance of rapid growth.