

South Wales Farm Vets

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## Our Team



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## Living And Working In Your Community

April 2021

Hello and welcome to the April Newsletter. The end of March was a promising glimpse of summer and now with the clocks gone forward, roll on the long evenings.

We are all thinking about turnout – it is very noticeable the long lingering looks that cattle are giving the fields before being returned to their sheds.

A few turn out shout outs:

- Magnesium supplementation– better to prevent grass staggers than try to treat or find a dead animal
- Post-natal checks on any problem breeders—check anything that had a tough time calving or retained cleansing
- Huskvac vaccination—remember you need 2 doses 4 weeks apart administered before turnout
- Nematodirus and coccidiosis in lambs—becoming a bigger risk as the weather warms up and impossible to distinguish without testing
- Blackleg vaccinations— 2 doses 4-6 weeks apart (depending on brand) 2-3 weeks before expected risk

We have been very busy with new life over the last month – the lambing table has been worth it's weight in gold. We have done a record number of caesarians on cows and ewes, and seen many cases associated with birth – prolapses, metritis, mastitis etc.

This month, Russell has written an article about calving in cows – what should happen in the lead up to calving and at calving. Next month, it's how to get them back in calf.

Hope you all have a Happy Easter, fingers crossed for a kind April weather-wise.

Mary

### Calving

As calving season gets into full swing, we thought a quick summary of what happens during a normal calving would make interesting reading, and would also pre-empt a lot of the questions we get whilst we are performing a caesarean.

Calving is triggered by the calf, not the cow, with the process beginning 3-5 days before the cow calves. Maximal uterine blood flow is 6 - 8 litres per minute, with umbilical blood flow reaching 1.2 - 1.4 litres per minute. As the navel reaches the limit of how much oxygen and glucose it can supply fetal cortisol (steroids) rise in response to the 'stress' the fetus is under. This rise in cortisol serves as the trigger for calving i.e. the calf tells the cow that it is about time it is born.

The cortisol is also responsible for the final maturation of the calf. Most important is the production of 'surfactant' in the lungs. The fetal calf's lungs are collapsed and full of fluid – after all it's not breathing in the uterus. When it is born, the first breath has to expand the lungs to allow air in, and they need to stay open. The surfactant is vital in allowing this process to occur as it reduces surface tension in the liquid in the lungs. Put simply, if the calf has no surfactant, it will be unable to breathe.

The cortisol also causes energy to be stored in the muscles, heart and liver, meaning the calf has an energy supply to fill the gap between being born and having it's first feed. Also, the gut undergoes final maturation,



Sian Fuller



Rachel Davies



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increasing its surface area and producing digestive enzymes ready to switch over to feeding on milk.

There is one final effect of the rise in fetal cortisol. Increasing levels in the placenta cause the production of prostaglandin F2 $\alpha$ , which causes luteolysis – the breakdown of the corpus luteum on the ovary, which is responsible for maintaining pregnancy. In effect, the cow “Estrumates” herself around 36 hours before she calves.

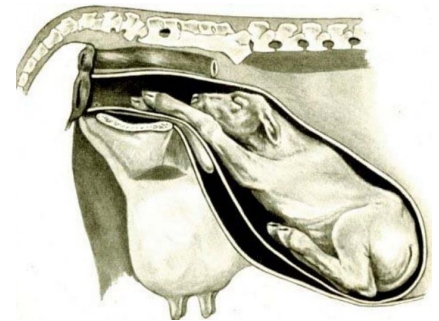
The calving process itself is divided into three stages, which usually take between 6 and 16 hours in total. Stage 1 lasts between 2 and 6 hours and is the preparation for calving. The cow will separate herself from the herd and uterine contractions begin. The contractions have to rotate the calf and bring the head and feet up to the cervix to allow calving to continue.

Rotation is an important part of the process, as during pregnancy the calf lies with its back to the floor and legs pointing upwards. Checking a cow early in first stage labour will often reveal a cervix that is not fully open and an ‘upside down’ calf – however, when the cow is checked an hour later, the calf should be making progress towards a more normal position. Stage 1 ends with the expulsion of the water bag.

Stage 2 is the delivery of the calf, and should be complete in under two hours, but is often much faster than this. If no progress is seen after 30 minutes, the cow should be checked for fetal position and size. Size can be checked whether a calf is coming forwards or backwards.

### Forwards calf

- Once the head is pulled up into the pelvis, it should stay there, even once the ropes are released
- With ropes on, one person should be able to pull the front feet two hands’ width beyond the vulva, using just their bodyweight, this is a relative test as a smaller person will weigh less but also have smaller hands
- If the front legs cross over as the calf comes forward this indicates there is pressure on the shoulders and a large calf



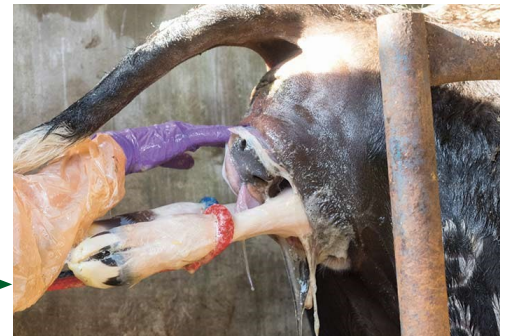
Normal presentation



Front legs crossing



One person pulling, front feet more than 2 hands width



### Backwards calf

- Once the hips have been pulled into the pelvis, they should stay there, even once the ropes have been released
- With ropes on, one person should be able to pull both hocks one hand’s width beyond the vulva, using just their bodyweight, the same as for a forwards calf

In cases where these checks cannot be completed, it is a good indication that the calf may be difficult to extract normally, and a caesarean may need considering. If everything is correctly presented, and the calf is the right size, then the cow can be left to calve on her own, although many people will give her a helping hand as the ropes are already on the legs.

Stage 3 is cleansing, which should be completed within 8 hours. It is worth recording cows that do not cleanse properly, as they are more likely to have problems breeding. For more information on this, track down a copy of last month’s newsletter.

Finally, the most difficult question of all – ‘How long can I leave her?’. There is no definite answer to this but the most useful guide we have found is that in first and second stage labour a cow should be making progress every 30 minutes, whilst a heifer should be making progress every hour.