

REARING CALVES

We are now well into 2019 and calving has begun again. It is always great to see new life and we all try to prevent disease and look after these calves. Colostrum and reducing infection challenge are critically important factors for successful calf rearing.

COLOSTRUM

We all know how important it is to ensure calves receive good passive transfer and the general rules for achieving this are:

- 4 litres (or 10% body weight) volume, or whichever is the greatest
- Quality colostrum (over 22% on a BRUX refractometer)
- Within the first 6 hours

Cleanly collected and delivered (through a well disinfected bottle or tube....that hasn't been used on the sick calves)

This guidance is provided to maximise the chance of the gut absorbing as many antibodies as possible. This is time dependant and begins to reduce as soon as the calf is born. It has been demonstrated that giving a part feed can trigger the gut to stop absorbing antibodies sooner and so it's important to get the full volume in within the first 6 hours. If we are giving a calf colostrum then one single feed is better than several small feeds. Suckling directly from the cow helps in the absorption of antibodies.

Absorption can be affected by the challenge from bacteria trying to fight for absorption sites with the antibodies, hence the need to keep the bacterial load as low as possible. Stored colostrum should be kept clean. If storing colostrum for a few days keep it in the fridge; if stored for longer freeze and when required thaw slowly and not in a microwave.

Colostrum should NOT be pooled from several cows as this makes Johne's disease control difficult. A record should be kept of which calf got colostrum from which cow. This is because if the cow subsequently tests positive for Johne's disease or develops clinical Johne's disease the calf which received the colostrum should not be kept for breeding.

The main method of transmitting Johne's disease in order of importance to calves are from muck, then milk followed via the placenta when inside the cow.

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www.ardenehouse.co.uk

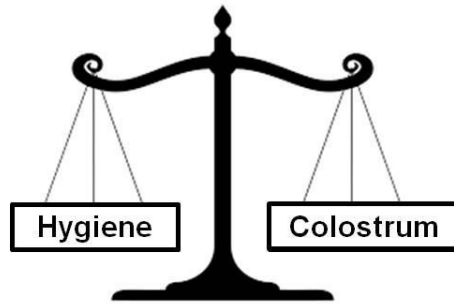
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Ways of improving immunity include:

- Good colostrum transfer
- Vaccination strategies, such as Rotavec corona and this is especially true for calves born indoors
- Good nutrition (including volume, frequency and type of feeding)
- Minimise stress (including temperature, lack of draughts, disbudding, group changes etc)

Challenges we face with calves can include:

- Hygiene: increased pathogen challenge can cause issues such as scour
- Temperature: a calf requires to use more energy to keep warm as opposed to an older animal.
- Poor ventilation: increased pathogen load in the air can increase the risk of conditions such as pneumonia
- Draughts – can cause “wind chill”
- Damp bedding
- Infectious load: e.g. BVD PI’s constantly excrete virus which challenge any other calves in the pen.

Identifying those things you do well to improve the immunity of calves is a good starting point. Try to find areas which you could improve. Comparing how other farmers do things can be beneficial. For example having similarly aged groups of calves together has been shown to reduce the risk of diseases such as pneumonia. Overall it’s a battle between maximising immunity and minimising challenge.

PLAN, PREVENT, PROTECT

Plan for healthy animals with good nutrition, colostrum etc.

Analysing your forage in terms of energy and minerals can help decide how the heifers or cows should be fed prior to and during the calving period. Nutrition of the pre-calving heifers or cows can affect the quality and quantity of the colostrum produced. Keep good records to help with Johne's control and disease incidence so action can be taken in the future.

Prevent disease from spreading by maintaining a good environment and cleanliness especially in sheds. Ventilation is very important as fresh air dilutes all the pathogens. Consider the use of drainage or a sloping floor to reduce the amount of bedding required.

Protect your animals with vaccines where appropriate. Samples of faeces from calves which have diarrhoea can help decide if vaccination pre calving should be done. For example there are more pneumonia vaccines which can help protect calves from a young age. Please speak to one of the farms vets by contacting Ardene House Vet Practice Ltd (01224740700) for more information.

Most products sold as "Colostrum" are actually supplements and should not be relied on as the only method of providing antibodies.

Locatim Oral Solution is a product for administration to give to calves in the first day of life. It contains bovine concentrated immunoglobulins. It can be thought of as "antibodies in a bottle." It does not provide nutrition in terms of protein or calories.

Immucol Platinum Calf Colostrum is a complete replacer for maternal colostrum. It contains a greater level of natural bovine antibodies and other essential nutrients.

REDUCING INFECTION CHALLENGE

There is a balance between immunity (Colostrum and Acquired Immunity) and challenge from pathogens (such as viruses, bacteria, cryptosporidium and coccidia), which should be towards the side of immunity. The best way to think about this is almost like a set of scales. We want the factors that help to improve immunity to add up and outweigh the factors that can pose a challenge to calves.

- Good nutrition (including volume, frequency and type of feeding)

Minimise stress (including temperature, lack of draughts, disbudding, group changes etc)